EGYPT 09
imagineXcup™

The World’s Premier Student Technology Competition
3–7 JULY 2009 | CAIRO • EGYPT
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Imagine a world where technology helps solve the toughest problems facing us today.
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Welcome to the Imagine Cup 2009 finals, and congratulations on earning a spot in such a strong field of participants. Here you’ll find yourself among the 2 percent of participants remaining from the more than 300,000 students from over 100 countries and regions who entered this year’s competition. Yours is quite an impressive achievement.

I’m honored to be participating in the Opening Ceremonies of this important event. I’ve often said that the thing I’ve most enjoyed about being in the software world is that what’s possible is largely a function of your creativity and how boldly you dare to dream. Software is such a pliable medium: If you can imagine it, you can build it. And as such, I look forward to the opportunity to seeing the product of your imagination, and your own approach to addressing some of the toughest challenges facing society today.

It’s inspiring that you chose to step up to this year’s challenge, and if the past events are any indication I expect that the concepts presented will prove to be quite novel. Across all areas of high tech, industry leaders have come to respect and rely upon those who are young and early in career because of their fresh approach in addressing new opportunities and solving vexing problems. Perhaps it’s because you’re advantaged by being un-tainted by knowledge of the patterns, practices and approaches that failed in the past–knowledge preventing the “experienced” from considering those things you know to be possible in the here and now.

Of course, perhaps it’s also your seemingly boundless energy; your enthusiasm; your optimism; your desire to have a broad impact in what you do; your passion for making a difference. I’m hopeful that as a result of your participation in this week’s event, and as a result of interacting with your competitors and experiencing their own concepts and ideas, that those things that motivated and drove you to participate will be even further ignited. You will likely leave this event with many new friends, quite inspired by what you have seen, and with a range of new ideas and new dreams of what might be possible. You’re in the early stages of what will be a tremendous journey. With the great aspirations that brought you here, you’ve so much you can achieve, and I look forward to seeing those achievements both now and in the future.

Ray Ozzie
Chief Software Architect
Microsoft Corporation

Young people are our hope for a better present and a more promising future. They are fortunate to live in a time where technological tools help them achieve their dreams. Wherever they live, these creative, ambitious and committed youths are being given the opportunity to make a genuine difference in their societies by reaching out to their peers, to those in need, and by serving their communities at large. As technology continues to shrink our world, young people have the chance to connect together on a much deeper level than ever before.

I believe that Imagine Cup provides a very special space for these innovative spirits and creative young minds to put their energies into practice and exert their will to be active agents of positive change. Imagine Cup offers them a space to experiment with and implement their own ideas and inventions to address the evolving and numerous challenges of our times.

Yes, young people face challenges of unprecedented proportions, from food crises to disease epidemics, from armed conflicts to environmental degradation, from extreme poverty to violence in all its forms, but they also have the tools, the capability and the power to solve them.

The advances in information and communication technologies have opened up social, political, economic and cultural pathways for change. They have significantly increased our capacity to solve fundamental problems that seemed impossible before. The internet, the great information highway, with its self-organizing system and horizontal structure has literally brought the whole world into our homes.

To each of you, this is what I believe the educational journey of Imagine Cup is all about. It is about enabling and empowering you to participate as active partners in shaping your world.

I would like to extend a warm welcome to each of you! Congratulations on reaching the final stage of the long journey that you have taken to get to the Worldwide Finals here in Cairo. I hope that you enjoy your visit to Egypt and find time to discover the unique culture and rich heritage that this country has to offer.

Good luck to you all!

Suzanne Mubarak
President and Founder of the Suzanne Mubarak Women’s International Peace Movement
Message from L. Michael Golden

Congratulations on your incredibly hard work and success in making it this far!

Welcome to the country that has been a center of learning as we know it! With the magnitude of scientific, mathematic and philosophical gains made by great thinkers who studied in Egypt, such as Euclid, Ptolemy and Hypatia, we are thrilled to hold this year’s Imagine Cup here. The challenges these groundbreakers considered and solved in their day laid the groundwork for the technology on which we all rely today. However, those challenges and mysteries were no less immense than the challenges we face today with global health, poverty, education, the environment and overall stewardship of the earth.

In light of those challenges, we thank you for stepping up to take on the 2009 Imagine Cup challenge to “help solve the toughest problems facing us today”. You have proven that innovation and great thought are alive and well in your regional contests. Although you are students, you are also teachers and we hope you use this incredible platform to TEACH the rest of the world how we can achieve these UN’s Millennium Goals by 2015.

Two of the Seven Wonders of the World are in Egypt – only one, the Pyramids, still stands. On our last night at Imagine Cup, as we gather in the shadow of those Pyramids, I won’t be wondering how they were made. I will gaze out on those ancient monuments to human engineering and know that there were energetic and inspired tech students like you attacking the challenge then and that, with your help, we will be able to surmount even the lofty and seemingly impossible Millennium goals.

We hope that your time here is as exciting and fun as it is challenging and competitive.

Sincerely,

L. Michael Golden
Corporate Vice President
Microsoft Education
Microsoft Corporation

Message from S. Somasegar

We are excited to be hosting the seventh Imagine Cup worldwide finals in Cairo, a city known worldwide for its long and dedicated commitment to innovation. It is said that if humankind were to cease to exist tomorrow there would only be two ancient world wonders to survive through the next millennium: The Great Wall of China and The Pyramids at Giza. A true testament to the value this area of the world places on science and engineering. It is a privilege to welcome the world’s brightest students, to recognize their talents and passion for using technology and software, and to help solve the world’s most significant problems.

This year, at the Imagine Cup Finals, we invite students to “Imagine a world where technology helps solve the toughest problems facing us today.” Our theme allows finalists to tackle world issues where solutions are desperately needed now more than ever. Whether it is economic or environmental, social or political, we have a set of challenges currently facing our world that can be overcome by creative technological solutions.

The Imagine Cup has truly come a long way. In 2003 about 1000 students from 25 countries and regions participated in the first Imagine Cup; this year over 300,000 students have competed from 69 countries. This competition continues to challenge students around the globe to imagine a better world empowered by technology and created by their talent and innovation. Microsoft supports that vision through this competition as well as our student program, Microsoft DreamSpark, which provides professional-level tools to inspire students to shape the future by turning their ideas into software at no cost to millions of high school and college students.

I want to extend my gratitude to the city of Cairo for hosting us this year and look forward to the solutions our brilliant young students bring to this year’s competition.

Sincerely,

S. Somasegar
Sr. Vice President, Developer Division
Microsoft Corporation
Welcome Imagine Cup 2009 World Finalists! It is a great honor for Microsoft to host you here in Cairo, Egypt for the Worldwide Finals of Imagine Cup 2009. I hope that you are ready to compete for the title of World Champion in your chosen invitational.

The Imagine Cup demonstrates Microsoft’s continued commitment to inspire the next generation of technology leaders to apply their imagination, passion, and creativity to solving real world problems and having a lasting impact on the world.

The mission of the Imagine Cup is to make the world a better place using the power of software. In every category of the Imagine Cup, you have the opportunity to transform the world for the better through technology.

I have already had the chance to review some of your work and it has been inspiring to see how you are using your creativity and knowledge to change the world.

The competition will be tough. By reaching the finals of the world’s premier student technology competition, you have already shown yourself to be one of the world’s most gifted technology students. To me, you are all already winners and I congratulate you on your remarkable achievements.

Best of luck in the Imagine Cup 2009 Worldwide finals.

Walid Abu-Hadba
Corporate Vice President
Developer & Platform Evangelism Group
Microsoft Corporation

Imagine Cup Finalists,

Like you, we have been dreaming of this day all year long. All of us that you will meet in the next few weeks are here to help you show the world what you can do. Years from now, we hope that you will look back on this experience and smile. We are honored and humbled to be here with you in Cairo.

The world has times of conflict and times of peace. Today we balance somewhere between the two depending on where you go across the globe. However, one of the greatest resources our planet has is its people. When people come together around a common cause, anything is possible. The Imagine Cup empowers students to connect and take on some of the biggest problems that we have. There is only ONE way that we can forge ahead and that is...together.

Together you represent the world. Plan to spend your time connecting with other students: share information, share cultures, share stories but make sure to...connect. You can exchange code or even just e-mails but make sure you take something away and you give something as well.

Together, you have already won. Your accomplishments deserve deep respect from all that will watch you over the course of this next week.

Together you will lead. As finalists you have already established yourselves as leaders. The world looks to you to show the way. You are the technology leaders of your generation. Lead with your mind but also lead with your heart as both are required to really make a difference.

Be a role model but remember where you have come from to get here. Thank your parents, your friends and anyone else who has believed in you. Others will look at you and believe that dreams can come true.

Together...you will change the world. All you have to do is to dare, risk and dream.

Best of luck in the Worldwide Finals of the 2009 Imagine Cup! I look forward to meeting you each in person.

Joe Wilson
Sr. Director–Education
Microsoft Corporation
Welcome to Cairo, Egypt and to the 2009 Imagine Cup Worldwide Finals. Yes, just like you, we have been preparing all year for this moment. It’s been great connecting through the forums and newsletters, answering your questions, and reading your inspiring finalist questionnaires. The regional Microsoft teams have provided terrific and in-depth reports on each of their local Software Design semi-finals. We are delighted that we now have the chance to meet each of you in person. We already feel like we know YOU!

You have indeed given your all to be here today. We asked you to research, brainstorm, design, and develop potential solutions that address the toughest problems facing our world today. You did indeed imagine a world with less poverty, hunger and disease, greater survival prospects for mothers and their babies, better educated children, equal opportunities for all, and a healthier environment; a world in which developed and developing countries work in partnership for the betterment of all. You skillfully stepped up to this challenge!

We know you will give your best while competing at the Worldwide Finals and that you take time to get to know your fellow finalists, share ideas, exchange e-mails/Twitters, “friend” each other on Facebook and forge new lasting friendships. With the exciting events we have planned, you will have time to experience and take in the history and awe of Cairo.

The Microsoft Corporate team and Microsoft Egypt team have been working together all year to create this unforgettable event. You deserve it!

Please take a minute to introduce yourselves to us over the next 5 days in Cairo. Welcome.

Good luck!

Message from Karim Ramadan

It is an honor and privilege to welcome you to the “Land of the Pharaohs” Egypt host of the Worldwide Finals of the 2009 Imagine cup. Millions have registered and competed to be a part of this glorious event and you the selected few have demonstrated innovation, creativity and imagination to be selected to represent yourselves and your country at this prestigious event.

You have all been given a unique opportunity to experience and to be a part of Microsoft’s grandest event, for 5 days in July Imagine Cup Egypt will be the brightest spot on the planet and you will be the stars that will make it shine and glow.

Egypt is steeped in history and culture perhaps best known as the home of the mummies, hieroglyphs and the only wonder the world still standing the great pyramids of Giza; engulf yourself in all this history and soak up all the culture, for this just might be the defining moment of your life and the story you tell your grandkids.

You are about to undergo a journey of self-discovery and personal triumph, with a chance to change the path of your future and the opportunity to change the course of the world. I wish you the best of luck and an unforgettable stay in Egypt.

Karim Ramadan
General Manager
Microsoft Egypt
Microsoft Corporation

Message from Karim Ramadan

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Karim Ramadan
General Manager
Microsoft Egypt
Microsoft Corporation

Imagine Cup Corporate Team

From left to right; Back: Scott Blackwell, Scott Sweeney, Monnette Johnstone, Millo Ognissanti, Rogerio Panigassi, Middle: Brian Conte, Matt Bernardy, Joe Wilson, Teddy Dyer
Front: Catherine Cormoreche-Meljac, Jennifer Perret, Leandro Doeyo (not present: Jeff Clausen, Tom Murphy, Mary Corrales-Diaz, Paddy Mirams)

Microsoft Egypt Team

From left to right: Marwa Saleh, Teymour Hosny, Mohamed Wahby, Aly Kamal, Ahmed Adel and Ahmed Abdel Hamid (on the ground)
Welcome to the 2009 Imagine Cup Worldwide Finals!

As the world’s premier student technology competition, the Imagine Cup is one way Microsoft is encouraging young people around the world to apply their imagination, their passion, and their creativity to technology innovations that can make a difference—today!

The Imagine Cup was founded in 2003 and has traveled the world westward from Barcelona, Spain to Sao Paolo, Brazil to Yokohama, Japan to New Delhi, India to Seoul, South Korea to Paris, France and now on to Cairo, Egypt. The “cup” itself, a trophy first awarded in 2003 when Software Design was the only category, has spent time with the Software Design champions in the United States (2003-2004), France (2004-2005), Russia (2005-2006), Italy (2006-2007), Thailand (2007-2008) and Australia (2008-2009). This year the cup will travel from Australia to Cairo and will be awarded to the winning Software Design team on July 7, 2009.

Now in its seventh year, the Imagine Cup has grown to become a truly global competition focused on finding solutions to real-world problems.

Every year the Imagine Cup continues to expand and touch the lives of competitors all over the world. In 2009 more than 300,000 students registered for the Imagine Cup competitions.

With the United Nations Millennium Development Goals as their guiding light, we invited students to harness their creative energy, their technical know-how and most of all, their personal passion to take part in an urgent mission:

“Imagine a world where technology helps solve the toughest problems facing us today.”

Teams were formed in over 140 countries/regions around the globe. Each team and each individual student envisioned new ways to approach these problems and drawing on their unique skills and experience for inspiration, they created stellar possible solutions. Competitors chose to compete in one of the 9 competitions including: Software Design, Embedded Development, Game Development, Robotics & Algorithm, IT Challenge, MashUp, Photography, Short Film and Design.

Each year the Imagine Cup also provides a chance to compete in specialized awards for additional recognition. This year’s awards are:

• Interoperability Award recognizes the software application that best leverages out-of-the-box Microsoft technologies and blends them with other technologies to connect people, data, or diverse systems in a new way.

• Tablet Accessibility Award explores the use of Tablet technology as a means to expand the learning potential of technology for those that require improved accessibility.

• H.E. Mrs. Suzanne Mubarak Special Award designed to highlight Software Design projects that best intersect the following: the Imagine Cup 2009 theme “Imagine a world where technology helps solve the toughest problems facing us today”, the Millennium Development Goals, the Suzanne Mubarak Women’s International Peace Movement, and the Cyber Peace Initiative objectives.

• Unlimited Potential Design for Development Award challenges students to create a software solution that is accessible to users in under-served communities.

• Unlimited Potential MultiPoint Education Award challenges students to develop an interactive and collaborative educational application for children ages 4-15.

The 2009 Imagine Cup Finalists showcased in this publication, have presented unique technology-based solutions. These finalists have investigated the deepest problems in their countries, regions and throughout the world and created innovative ways to solve these issues. Their creativity demonstrates that technology is indeed the most crucial tool for a changing world.
2003—Barcelona, Spain
Theme: “Link between people, information, systems, and devices, using Web services and .NET as the springboard.”
Worldwide Competitors:
• 1,000 students from 25 countries
• 15 finalist teams

2004—Sao Paulo, Brazil
Theme: “Imagine a world where smart technology makes everyday life easier.”
Worldwide Competitors:
• 10,000 students from 90 countries
• 50 finalist teams

2005—Yokohama, Japan
Theme: “Imagine a world where technology dissolves the boundaries between us.”
Worldwide Competitors:
• 30,000 registered, 17,000 students competed from 97 countries
• 86 finalist teams

2006—Delhi, India
Theme: “Imagine a world where technology enables us to live healthier lives.”
Worldwide Competitors:
• 68,000 registered, 24,000 students competed from 100 countries
• 76 finalist teams

2007—Seoul, South Korea
Theme: “Imagine a world where technology enables a better education for all.”
Worldwide Competitors:
• Over 100,000 registered, 59,000 students competed from 126 countries
• 120 finalist teams

2008—Paris, France
Theme: “Imagine a world where technology enables a sustainable environment.”
Worldwide Competitors:
• Over 200,000 registered, 59,000 students competed from 124 countries
• 124 finalist teams
In 2009, we asked all of the world’s most talented students—software programmers, hardware developers, artists and dreamers—to “Imagine a world where technology helps solve the toughest problems facing us today.” The United Nations identified some of these tough problems in its Millennium Development Goals. The 2009 Imagine Cup uses these ambitious challenges as a guiding light to inspire students to create change all over the world.

All of us on the 2009 Imagine Cup team at Microsoft look forward to yet another year of witnessing the mind-blowing innovation of students that step up to the challenge. We are astonished by the resourcefulness and creative thinking students bring to the Imagine Cup competition. And no matter who comes up with the best solutions—everybody wins!

The Eight United Nations Millennium Development Goals

The Millennium Development Goals were agreed upon by 189 nations around the world more than eight years ago. They encompass universally accepted human rights such as freedom from hunger, the right to basic education, the right to health, and a responsibility to future generations. We are now more than halfway toward the target date—2015—by which the Millennium Development Goals are to be achieved.

Imagine a world with less poverty, hunger and disease, greater survival prospects for mothers and their infants, better educated children, equal opportunities for women, and a healthier environment; a world in which developed and developing countries worked in partnership for the betterment of all. Now imagine that you are part of the solution.

How will the world look in 2015 if the goals are achieved?

• More than 500 million people will be lifted out of extreme poverty.
• More than 300 million will no longer suffer from hunger.
• Dramatic progress in child health will save 30 million children and more than 2 million mothers.
• More than 350 million people will have access to safe drinking water.
• More than 650 million people will have the benefits of basic sanitation.
• Hundreds of millions more women and girls will lead their lives in freedom, with more security and more opportunity.
Welcome to Egypt

On every street corner and in every grain of sand, Egypt is steeped in history and can trace its origins to 10th millennium BC. Evidence has been found of hunters and fishermen along the banks of the River Nile, to the great architects of the pyramids, temples and statues, to Moses and the bible and the creation of the modern Islamic world.

Every school child is aware of the Pharaonic history of Egypt. All have seen pictures of the great mask of the boy king Tutankhamun, the Sphinx (head of man and body of a lion), the great Pyramid of Giza (the last remaining Seventh Wonder of the Ancient World) and the mummies of the ancient world. However, there is more to Egypt that remains to be discovered.

Egypt is where Moses wandered lost in the wilderness and received the Ten Commandments from God. South Sinai is home to St. Catherine’s, the oldest working monastery in the world. Located in the shadow of Mount Sinai some 450 kilometers from Cairo, the monastery is home to the Burning Bush and reported to have one of the best libraries outside of the Vatican.

Egypt has been influenced by many nations during its long history including the Ottomans, Albanians, French and English. During the time of the Albanian occupation, one man emerged dominant and this was Muhammad Ali, who established a dynasty that was to rule Egypt for many years. During this time great mosques were built including the Mohamed Ali mosque which now towers over the Cairo landscape and can be seen for miles.

In the 1950’s Egypt became a Republic and the first President was declared. General Muhammad Naguib was president only for a short while before Gamal Abdel Nasser took over and declared full independence of Egypt in 1956. This was the start of Egypt as it is known today.

While today Cairo is a bustling modern city with multinational companies, 5–star international chain hotels, and vibrant shopping malls, Egypt’s past is never far away. Wander down a back street and don’t look down, instead look up. Old buildings, mosques, museums all breathe the ancient history of this great country and all of them have a story to tell.

Egypt is attracting different types of visitors to its shores. Divers of the world come to explore the underwater paradise of untouched coral reefs and ship wrecks off the Mediterranean coast line and the Red Sea, the ancient shipping routes of the pharaohs. The mild winter climate is also seeing a new kind of traveler to Egypt, the golfer. Championship courses are available not only in the capital Cairo but also in the Red Sea Resorts.

Egypt, the land of the pharaohs, has something to offer for everyone. Welcome!
**Event Schedule**

**Friday 3 July**  
Arrival/Opening Ceremony  
Competitor Briefings  
Competitions Commence  
*The Imagine Cup Opening Ceremony and Reception Dinner will take place at the Citadel in the evening.*

**Saturday 4 July**  
Competitions—Ongoing

**Sunday 5 July**  
Competitions Conclude  
Finalist Presentations

**Monday 6 July**  
Unlimited Potential & H.E. Mrs. Suzanne Mubarak Special Award  
Cultural Day with visits to Pyramids, Egyptian Museum, and Lunch on the Nile  
Dinner in Al Azhar Park

**Tuesday 7 July**  
Digital Theatre & Student Showcase  
World Festival & Awards Ceremony at the Pyramids

**Wednesday 8 July**  
Departures
This is the only Imagine Cup competition that is run locally each year in countries and regions all around the globe. The Software Design competition invited students to explore their own creativity by using technology to solve important problems outlined in the United Nation’s Millennium Development Goals. We provided the theme, but these finalist teams, whose profiles are on the following pages, provided the genius to create innovative, dynamic and awe inspiring solutions and software applications.

Many of the finalists will start their own companies, work at major corporations, begin a non-profit organization or even integrate their projects into key programs for government agencies. One thing is certain—more than one of these teams is definitely on their way to changing the world.
Evotech

Team Members:
Mohamed Ryadh Dahimene
El Kindi Rezig

TITLE OF PROJECT: People Really

PROJECT OVERVIEW
Humanitarian work, whatever domain, requires people. Nowadays, humanitarian actions are driven by people who are completely devoted to their mission. They are doing a great job however those kinds of people are quite difficult to find. The idea behind People Really is to give anyone the opportunity to help, during their spare time or wherever they can. Based on the free time schedule and geo localization of the potential helper, People Really synchronizes humanitarian efforts of a large number of volunteers in order to achieve the defined goal. People Really acts as a coordinator between the needs, as specified by associations, and the potential helpers. Deployed as an application on actual social networks such as Facebook, Live Spaces, and Orkut, People Really will use them as a source of potential volunteers. Volunteers will have direct access to People Really through these social networks. The concept of People Really is very flexible; it remains efficient and can be instantiated to many domains. We have fully implemented an instance of our solution for universal education accessibility and called it Education Provider. With slight changes, we can move the scope to many other domains such as health care, global partnership, child health, etc. Help during your spare time, help wherever you can! Are you People Really?

TECHNOLOGY/SOFTWARE USED
• .NET Framework 3.5
• Windows Vista SP1
• Visual Studio 2008 Professional
• Silverlight 2
• Virtual Earth
• Windows Mobile 6.0
• SQL Server 2008 – IIS 7.0
• .NET Compact Framework

INSPIRATION
The concept of Imagine Cup is great: hundreds of students thinking and working to achieve the same goal and finally meeting in one place to compete and choose the best solution. We found this concept very interesting and chose to compete in the Software Design competition because we are all passionate students in software design.

TEAM HISTORY
We are students at the same university, same field, and in the same class. We met in 2006, when we were in the 2nd year of our curriculum.

TEAM EXPERIENCE
We love coding and have been developing software for quite some time. We code for commercial and non commercial use. Our college courses have helped us deliver quality projects, and now, we are working as freelancers in software development. This has given us even more great experience in the software design arena.

HIGHLIGHTS
The best part of the Imagine Cup competition was the Algeria semi finals in Boumerdes, Algeria. Meeting the other teams, presenting our project for the first time and most of all, the announcement of the winners—were the most exciting parts so far.

GENESIS
We had been brainstorming since the announcement of the Imagine Cup 2009 theme. This theme motivated us to think about a solution to solve a tough social problem. We were inspired by the problem of universal education, which is part of the Millennium Development Goals. We believe that tackling this problem contributes a great deal to solving other social problems such as aiding in poverty and other healthcare issues. After months of hard work, we realize that our solution can be used to solve many other social problems.

CHALLENGES
As we are studying and working at part time jobs, we strove to find some free time to develop our submission. We faced some technological challenges regarding the implementation of some formal algorithms such as specifying the coverage area on the map and calculating the user’s membership to certain areas on the map.

FUTURE PLANS
We really think that our solution can and should be used by humanitarian associations. We hope to one day see our solution help people in different ways. In order to achieve this goal, we plan to launch a startup company using our concept (availability + geo localization) in a commercial way.

MORE INFORMATION
http://evotech-usthb.blogspot.com/
Title of Project: Greendose

Project Overview
The quality of living has definitely increased in recent years due to the use of computers. This has provided many advantages: one which is the growth in the number of users. In spite of these positive aspects, these changes have also brought some problems to the world. One of these issues affects people who work for many hours on their computers and thus suffer from different health disorders. Greendose is software that cares about these computer users. It helps to prevent such disorders that can cause serious problems, and also provides helpful information that supports these preventative actions.

Technology/Software Used
- Microsoft .NET Framework 3.5 SP1
- Microsoft .NET Compact Framework
- C# Programming Language
- ASP.NET Framework 3.5
- Visual C/C++ Win32 API
- Microsoft SQL Server 2005
- Windows Live ID SDK
- XML
- Microsoft Office Visio Professional 2007

Inspiration
The Imagine Cup competition provides a great opportunity for all participants to express their thoughts and ideas. It also is exciting to have a chance to meet many other brilliant students with different objectives from all over the world. These reasons were more than enough motivation for us to participate in the Imagine Cup competition. We chose the Software Design competition in order to have a valuable experience for our technical and educational future. The future for all of us is related to computer science and software design.

Team History
All four of us are studying at the same university and have known each other for about one year before TechSquad was born. When we were informed about the Imagine Cup, we decided to gather as a team and enter the challenge together.

Team Experience
As TechSquad is a brand new group, we do not have any previous experience under this name. However, all of us have had some individual experiences as Bachelor of Science students and in the first year of our Master Program at the American University of Armenia.

Highlights
The last ten days of our preparation for the local final competition was memorable. The time was short and all of us worked hard to get the best possible result. We experienced such great teamwork and we also learned how best to share one common goal between all team members. Another interesting part of our experience was the research and the discussions. As we are of different nationalities, we used four languages in our meetings. These meetings were similar to international conferences.

Genesis
Due to the fact that two of us are suffering from computer-caused health disorders, we decided to look in to this problem and try to find a solution for it. When we were informed about this exciting competition and read the Millennium Development Goals, we tried to expand our project view to include as many goals as possible. Goals we included are: to combat diseases, increase health education, improve maternal health, and also valuable child protection.

Challenges
The main problem we faced during our work on this project was time constraint because we found out about this competition right before our spring term final exams. So, we doubled all our efforts to complete the tasks in a proper but fast way.

Future Plans
We believe our software would help to solve the issue under consideration and that such work should be done in the shortest possible time since the use of PCs and laptops has rapidly increased. Now is the time to take preventative actions and care about this issue. Therefore, beside our studies in our Masters program, we have decided to continue work on Greendose and make it a friend for every computer user.

More Information
http://www.greendose.info
TITLE OF PROJECT: eGreen

PROJECT OVERVIEW
The aim of this system is to give consumers information about the environmental impact of the products they buy. This will change consumer purchasing behavior causing a “domino effect,” where market forces will make it economically essential for producers, distributors, and others in the supply chain to minimize the effect of their activities on the environment. Environmental impact information will be gathered and summarized using the eGreen rating system. The eGreen rating system will integrate products’ environmental impact information from all stages in the product life cycle. Aside from this, the eGreen rating system will allow people to keep track of their individual environmental impact based on the eGreen ratings of the products they have already purchased. Through the use of Radio-Frequency Identification (RFID) tags, consumer goods will be tracked throughout the supply chain. Information regarding the production and distribution of items will be used to calculate an item’s eGreen rating. This information is made available to consumers via a website, and other systems that could connect to our web services. For example in-store scanners, sidebar gadgets and social networking applications. This system will provide a straightforward way of making people aware of the environmental impacts of the products they plan to purchase.

TECHNOLOGY/SOFTWARE USED
• .NET Framework 3.5
• Visual Studio 2008
• Virtual Earth
• Mobile Device
• SQL Server 2008
• Radio Frequency ID (RFID)
• ASP.NET
• XML Web Services
• WCF
• WPF
• Silverlight

INSPIRATION
We felt our system would have a global impact by improving the environmental practices of manufactures and distributors. Since global warming is a significant issue, consumers want to minimize the impact they have on the environment. For example, driving Hybrid cars, carrying groceries in reusable bags and buying more environmentally friendly products. From the results of a survey we conducted consumers are interested in a system that enables them to compare the environmental impact between two similar products and make their purchasing decision based on this information. This would make it economically essential for manufactures and distributors to be more environmentally friendly to attract consumers to buy their products. The Imagine Cup Software Design competition is a unique opportunity to share our idea with a wide range of people from a diverse set of fields and gain some great experiences along the way with a chance of changing the world while we are at it.

TEAM HISTORY
Our mentor approached students he felt would enjoy and have the ability to be successful in the Imagine Cup. When the team met for the first time we discovered we all knew each other from units we’d studied together previously.

TEAM EXPERIENCE
We are all final year students and have had extended software design experience while undertaking our University degrees. We are all employed in software design occupations and have a passion for developing software solutions for interesting problems.

HIGHLIGHTS
The Australian finals! Travelling to Microsoft HQ in Sydney, presenting and being awarded first place. That was an amazing feeling to have achieved such a success.

GENESIS
UN Millennium Development Goal 7 (Ensure Environmental Sustainability) was the inspiration for our solution. While trying to find ways to reach this goal, we looked at how we could potentially improve the waste management of consumer products. This lead to the development of a system to rate the environmental impact of consumer products across the entire supply chain.

CHALLENGES
One of the technological challenges we faced was the integration of all the different technologies to implement the system. This included integrating Microsoft technologies with other vendor systems, such as RFID scanners. Personal challenges would include time management, as we all work full time and study part time.

FUTURE PLANS
We feel this type of idea will be implemented into the market; the question is when rather than if. We would welcome the opportunity to further develop our system into a business, but there is a lot more features, research and development to be done before this could happen.

MORE INFORMATION
Genius Touch
Team Members:
Ahmed Majdi
Mahmood Al-Reefy
A.Rahman Ebrahim
Mohammed Anwar
Mentor:
Ahmed Al-Tayeb

TITLE OF PROJECT:  Cash Trash

PROJECT OVERVIEW
The main idea is quite simple: we are trying to increase everyone's knowledge of recycling, especially for the young generation. This will make sure that our environment is in safe hands and they will pass this knowledge on to the next generations. We are trying to take advantage of the latest technologies to make our project unique, stylish, modern, and doable. At the same time we tried to design something that will attract young people because they are our primary target. And Cash Trash was born. Cash Trash is a smart bin allowing users to get points for every recyclable material they put in the bin. These points will be saved for the user and simple software will calculate and show the user how much energy he saved and what he did for a better environment. That is how we will increase environmental knowledge among people.

TECHNOLOGY/SOFTWARE USED
• .NET Framework
• SQL Server
• Virtual Earth
• ASP.NET
• Facebook applications
• Bluetooth and SMS
• XML
• Silverlight
• PLINQ
• Cloud Based (Azzure, SDS)
• Microsoft Web Service
• Pop Fly
• Voice recognition
• Mobile applications

INSPIRATION
Lana Khalaf, Microsoft Gulf Academic Developer Evangelist was the main inspiration for us. She came to our university in 2007 and explained the competition to the students. After that we joined Microsoft Imagine Cup 2008 and 2009. We chose the Software design competition as the field that we are studying so we knew that we have the ability to meet the challenge.

TEAM HISTORY
We are all in the same college and we have been friends since high school. We meet 10 years ago and since then we have been a team in everything.

TEAM EXPERIENCE
We have studied many programming languages in the university, but Imagine Cup was our opportunity to use this knowledge to help solve the world toughest problems.

HIGHLIGHTS
Winning first place in the regional finals.

GENESIS
Ahmed Majdi was the first one who thought of the idea, and then we all came together to start working to develop software that will really help the world create a sustainable environment for the next generations.

CHALLENGES
We have faced lots of problems to reach this stage. Some personal problems and lots of technological problems...but day after day working on the project we start to learn how to solve any problem facing us.

FUTURE PLANS
We are going to start our own company and this project will be just the first step for us...we have lots of ideas that are ready to be implemented and we are going to implement them and start our own company as soon as possible...we are coming.
BigBang

Team Members:
Andrei Khmylov
Sergey Matyukevich
Vladimir Makarov
Sergey Volkovich
Mentor:
Aleksey Volosevich

TITLE OF PROJECT: Stalker

PROJECT OVERVIEW
Stalker is a global ecological monitoring system that provides information about lots of ecological factors and analysis based on that information. Main features are modeling of pollution spreading from factory emissions (what allows to control industrial activity in a specified region), analysis of crops pollution depending on the territory they are planted on and calculation of optimal fertilizers quantity required for the best harvest.

TECHNOLOGY/SOFTWARE USED
• .NET 3.5
• Microsoft SQL Server 2005
• .NET Compact Framework 3.5
• Windows Mobile
• WCF
• WPF
• XML
• LINQ
• Microsoft Visual Studio 2008 Professional
• Microsoft Expression Blend 2.0

INSPIRATION
We decided to participate in the Imagine Cup competition because we felt our potential to make the world a little bit safer and better, and, of course, we wanted the world to know about us. Even more importantly, this is the first time our country had an opportunity to handle a local competition round. We chose the Software Design competition because its suits our university course work quite well, and we think that software application development that involves modern technologies is one of the best ways to impact the world.

TEAM HISTORY
We've known each other for 2 years. The story of us as a team begins with one project that we've been working on for our university.

TEAM EXPERIENCE
Andrew worked on a commercial software project for Belarusian industrial enterprise some years ago. Later on all together we participated in the development of a computer adaptive testing system and some smaller projects.

HIGHLIGHTS
Preparations for our performance at the local competitions have been the best part to date. The working atmosphere, shooting videos for our presentation, collective discussions in empty auditoriums and big task lists on the blackboard - all of these things have been amazing.

GENESIS
It is already hard to remember how we came up with the idea of our project. But at some moment Sergey introduced his vision of the problem - he proposed to develop an application that will monitor radiation pollution and keep the user aware of it. Later on it was changed to monitor and analyze different factors. We were inspired by the following Millennium Development Goals: #7.) Ensure environmental sustainability - It is wise to monitor and predict ecological accidents. #4.) Reduce child mortality and #5.) Improve maternal health - The better ecology provides for the better health of the nation. #1.) Eradicate extreme hunger and poverty - Intelligent analysis is required to ensure a good harvest.

CHALLENGES
The most difficult side of the development process is time management. Especially when so much work has to be done in such a short period of time.

FUTURE PLANS
We plan to develop our project further by widening its functionality and usefulness even more. It would be great to integrate it with other projects into something global and outstanding.
LFX-Team

Team Members:
Sebastien Graindorge
Laurent De Dijcker
Andy Maddio

Mentor:
Carine Gradon

TITLE OF PROJECT: Live Food eXchange

PROJECT OVERVIEW
According to the World Health Organization, over 60% of human beings are not well-fed. Currently most of the food surplus, coming mainly from supermarkets, is thrown away. The idea of our project is to offer a solution that allows the collection and distribution of food surplus more efficiently to charities. The main purpose is to gather a greater quantity of food for a greater number of the destitute. All those involved: supermarkets, charities, carriers, individuals, would have access to the Live Food eXchange website. The supermarkets update their available food list, which charities may then book to acquire. To maintain traceability throughout the cycle of the food process, our system uses the existing barcode system to minimize costs. Most of the functionalities are available through a mobile application which also provides real-time tracking of food packages and displays the optimized journey to collect and distribute food in turn reducing CO2 emissions. Our website integrates a communication system between the actors, creating a community around food exchange.

TECHNOLOGY/SOFTWARE USED
• .NET Framework 3.5 SP1
• .NET Compact Framework 3.5
• SQL Server 2008
• SQL Server Compact
• SyncService for ADO.NET
• ASP.NET
• AJAX
• WCF
• Bing Maps Web Services
• Visual Studio Professional
• Windows Azure Platform
• Windows Live Alerts
• Windows Live ID Web Authentication SDK

INSPIRATION
Imagine Cup is a great opportunity for us to meet developers from all around the world. We also want to discover new horizons, and see how people from our age group think about a better world. We chose software design because it is the most challenging competition most teams are taking part in. It is also the one we felt the most confident with.

TEAM HISTORY
All three of us are completing a bachelor degree this year in computer science. A lecture about Imagine Cup was held in our school (6 times finalist at the worldwide finals), introducing us to what it is, the subject, and the different milestones of the competition. This conference has strengthened our relationship, and we all thought about the benefits of such a contest.

TEAM EXPERIENCE
We have studied computer science for three-years with experienced teachers, providing us with good knowledge about software design and development.

HIGHLIGHTS
Until now, the entire competition and our full involvement have been a real pleasure and we would do it again, without hesitation. We really enjoyed working on a project with a worldwide scaled because not only did it open our minds in terms of reflection and research about a concrete topic, but also in terms of in-depth project analysis, software development and teamwork.

GENESIS
We analyzed the Eight United Nations Millennium Development Goals, and thought about various projects. Then we tried to imagine which one could have the biggest impact on the whole world’s population. We concluded that helping people who are underfed would allow them to live a better life, which would be rewarding for us. To know exactly what kind of project we wanted to set up, we visited some charities, which helped us to understand how the current food surplus is treated. We noticed that it is not handled efficiently, and that we could help.

CHALLENGES
The technology we used is new to us and we had to research it extensively. The work had to be completed in a short time frame, and that was the biggest challenge we faced.

FUTURE PLANS
Our project is purely charitable and the main purpose is not to make profit. Our purpose is to help people who cannot pay for their food. However, we considered most of the business aspects and the project can sustain itself. That is why we would love to launch it on a global scale. To do that, the next step will be prospecting in foreign countries, contacting corporations and governmental organizations. The goal is to make the project functional as soon as possible and helping a constantly growing number of destitute and impoverished people.

MORE INFORMATION
http://www.livefoodexchange.net
Virtual Dreams

Team Members:
Bruno França dos Reis
Eduardo Sonnino
Roberto Sonnino

Mentor:
Bruno David Sonnino

TITLE OF PROJECT: HealthTag

PROJECT OVERVIEW
HealthTag is a health care support system for remote areas that allows for easy identification of patients and access to their medical records. In addition to that, it stores statistical data to help research on the spread of diseases and the effectiveness of health policies.

TECHNOLOGY/SOFTWARE USED
- HealthVault
- Azure SQL Data Services
- Microsoft Tag
- WPF 3.5 SP1
- WCF 3.5 SP1
- SQL Server 2008
- .NET Compact Framework 3.5
- Web Services
- Multi-touch
- TUIO Protocol
- Bluetooth

INSPIRATION
On our team, two members had already experienced the Imagine Cup Worldwide Finals and, excited by the idea of the finals in Egypt, we decided to build a team. We chose the Software Design competition because it's always been the greatest challenge in the Imagine Cup and we love the idea of competing at such a high level with many great projects. We also like this category because it's close to real world software innovation and business.

TEAM HISTORY
Eduardo and Roberto, as brothers, have been working together on Imagine Cup projects since 2005. After Roberto went to France in a student exchange program he met Bruno, a student in the same program who shared his interests, and they quickly became friends and started working together. The team mentor is also Roberto and Eduardo's father.

TEAM EXPERIENCE
Eduardo and Roberto had already competed four times in the Imagine Cup, two of them in the Software Design competition. They won the 2008 Brazilian finals and placed 4th in the world finals in Paris last year. Bruno, a newcomer to the competition, has had broad experience in programming and algorithms and was a perfect match to the team for this year's competition.

HIGHLIGHTS
The Brazilian finals experience was very intense, and the fact that we are now traveling to Egypt is really exciting. Besides that, working with real doctors and researchers who were thrilled by our solution motivated us to improve our solution and apply it in large scale for the world.

GENESIS
After almost 3 months of brainstorming, we were impacted by the shocking situation of health in remote areas of the world. Inspired by the possibility to improve this situation, we came up with a solution that adapts itself to the available infrastructure and addresses 4 of the 8 Millennium Development Goals (Children Health, Maternal Health, Combat HIV/AIDS and other diseases, Global Partnership).

CHALLENGES
Our main challenge was the fact that team members were separated by almost 10000 km and time zones five hours apart. Technically, we were challenged by the need to respect medical ethics and develop an interface that adapts to medical use in remote areas.

FUTURE PLANS
We've received so much good feedback from potential users of our project that we feel inspired to continue it and apply it broadly in the real world after the Imagine Cup. We hope this project will allow us create a new business and change the world for the better.

MORE INFORMATION
Bruno's blog: http://brunoreis.com/blog
Roberto's blog: http://virtualdreams.com.br/blog
Envision is a system designed to support teachers in their work and to make students active participants in the lessons. It's aimed at achieving one of the millennium goals, defined by the United Nations, Universal Primary Education. In order to help every child complete primary education, Envision is designed to use a single computer, a single projector and a few mice, one for every student. As a result Envision creates an active, collaborative learning experience that engages each and every student.

**TECHNOLOGY/SOFTWARE USED**
- Microsoft MultiPoint SDK 1.1
- .NET Framework 3.5
- MEF Preview 5
- Silverlight 2
- WCF
- Visual Studio 2008
- Expression Blend 2

**INSPIRATION**
Isn’t this a drinking contest? No? Imagine what? Imagine Cup you say! The reality is that a team from our university won the National Finals last year. The competition this year sounded challenging and the theme was very interesting. We also thought that entering the Imagine Cup would be a great way to send our message to the world that we wish to help people have better education. Why software design? Very simple - we could dream, and then slowly turn our dream into reality with awe-inspiring software. And we LOVE doing that.

**TEAM HISTORY**
We met in a bar during a drinking contest. As strange as it sounds Raya won and ironically said: “You guys drink like girls.” Seriously, we’ve known each other for a long time. Kiril and Dilyan are brothers, so they’ve known each other from the beginning. What connects us is that we all enjoy software and we often go out together.

**TEAM EXPERIENCE**
We are all students at the Technical University of Sofia and we work for major software companies using Microsoft technologies. You can say that we are a kind of small software factories. Work, work...

**HIGHLIGHTS**
We really liked the feedback we got from the jury in our national finals because they gave us new insights into what we could do differently. Also the Bulgarian final was a great experience for us. It was very satisfying to win!

**GENESIS**
Envision is based on extensive research in teaching methods, especially ones which promote competition and collaboration. We also identified the main obstacles that usually made educational systems ineffective, such as lack of resources and lack of interest. Our aim was to drastically reduce educational costs, make a highly extendible system, and motivate students by actively involving them in the learning process.

**CHALLENGES**
The most difficult challenge was the lack of time. Surely it is not easy to complete all the great things that come up in your mind, especially when ideas are provoked with the implementation and the good results you achieve.

**FUTURE PLANS**
After the finals in Egypt we are going to further develop Envision and adapt it to local classrooms. We have already met with teachers and they are excited to use the application for their classes. For us, the best reward is to see a child using Envision and enjoying it! We are sure that our project can change the life of millions. We’d also like to find some sponsors that will help us to commercialize our project.
TITLE OF PROJECT:  Prismo

PROJECT OVERVIEW
We've noticed that technology is being used to improve learning skills at schools, not only for senior courses, but also for the little kids at primary or even pre-primary levels. So we noticed that the interaction between children and computers was sometimes inadequate and difficult for them. Besides it usually consists of only one kid working alone on his or her assignment. This worried us, because we are in a social world, and we do not think that this scheme would teach children how to function in a collaborative environment. So we offer a solution named Prismo, which allows more than one user to work on a system in order to generate teamwork. Prismo is education software based on new ways of interacting with the computer. You will no longer need a mouse or a keyboard, you can simply speak words or show images to the computer and it will understand you. This tool is meant to improve social skills in children by encouraging them to work as a team and to collaborate with each other from early on. It's also fun to complete the activities that Prismo provides.

TECHNOLOGY/SOFTWARE USED
• OS: Windows Vista
• IDE: Visual Studio 2008
• Framework: .NET 3.5
• Design Tools: Expression Studio 2.0
• GUI: WPF
• Speech Recognition: SAPI 3.5
• Pattern Recognition: DirectShow

INSPIRATION
First of all we wanted to incorporate a global vision in to our solution. We also are happy to be a part of the cultural exchange that this competition allows. Also, not every day do you get to go to another country! We were so thrilled that it was Egypt. All this feedback at the Finals will help us to improve Prismo and to make it a better tool for kids. The idea is to create a business that provides innovative and interesting solutions to a variety of problems that have not been properly addressed yet.

TEAM HISTORY
We are all students of the same career at the same university. Robinson, Sebastián and Fréderick belong to the 2004 generation, so they met as classmates. On the other hand, Carolina belongs to the 2005 generation, so I met the guys on my free time. We've always been close and because of that we decided to make this project together (initially this was an assignment for a signature called the Software Development Workshop). In order to complete this assignment we needed funding, and that's when we heard about a contest called Entrepreneurs.NET that was hosted by UTFSM, 3ie and Microsoft. We won this competition and gained resources to develop a better project that will eventually become a business. It's important to mention that 3ie is a business incubator that encourages students to create their first enterprise in the real world by supporting development of new and innovating ideas.

TEAM EXPERIENCE
Not much experience really, mostly theory (learned in classes) and some projects that came as assignments (such as the project that gave birth to Prismo). Robinson is the most experienced of us all in this area because he worked for over a year developing systems for companies in the country.

HIGHLIGHTS
That's easy! The best part of this competition so far was when we were selected to represent Chile at the Imagine Cup 2009 and all that implies, such as the trip to Egypt, the acknowledgment of our hard work and the chance to be part of something that concerns the entire world and that produces a real effect on people.

GENESIS
We were informed of the existence of Imagine Cup by Alejandro Pacheco during one of the presentations we made about Prismo at the 3ie (this is the entity that hosted de Entrepreneurs.NET contest along with Microsoft and UTFSM, and it's in charge of acting as an incubator of future business). At this occasion, Pacheco told us that our solution was a perfect fit to the goals of this year's Imagine Cup, so we investigated it further and decided to participate.

CHALLENGES
We had to rebuild our software (we had a prototype built for a prior assignment) and this was done during our summer vacations (2008-2009) from January to April. So we worked on this the entire summer. This was a great challenge, mainly because we had to be up at 9 am every day. It was worth it though. But the technological challenge has been even greater; we had to learn really fast how to use Visual Studio, WPF, Expression, DirectShow, and SAPI. It was really tiring, and after that we had to implement our solution, which is always something difficult to achieve, we are still making changes and testing given that documentation is not always enough.

FUTURE PLANS
The next step is to set the basis to a new business. We are aiming to distribute our software in Chile to be tested in schools and hopefully to be implemented as a basic learning tool for kids. Since we already know how the technology works we would also like to create new software with different approaches.

MORE INFORMATION
http://www.ogmiostec.net/blog
DreamFree Studio

Team Members:
Yang YuXin (captain)
Zhu Yi
Wang TianXin
Fu PengYu

Mentor:
Dr. Zhang Zheng

TITLE OF PROJECT:  Dr. CHEN (Community Health ENhancing)

PROJECT OVERVIEW
The objective of our project is to promote more efficient use of limited medical resources in China to help people get better health and medical care. We try to use technology to improve the community health care service. Some people, such as pregnant women and the elderly, need consistent medical monitoring. This is a labor intensive work for both the patients and the doctors. Our solution can help patients to arrange [appointments] in advance and it automatically monitors the physical data of patients when they are not at hospital. It can help doctors to provide timely feedback and treatment advice to the patient.

TECHNOLOGY/SOFTWARE USED
We used many techniques based on Microsoft .NET Framework, including excellent client side techniques such as WPF, Silverlight as well as powerful server side techs like WCF. We implemented series of Web Services as background support for our system and client devices for various kinds of users. Besides all of the above, we also used some embedded devices for data collection and remote data transmission so that one can use our system anytime anywhere.

INSPIRATION
Microsoft Imagine Cup is the greatest competition of technology and innovation for students in the world. Innovators from all over the world come together with the goal of solving tough problems of the world using techniques with their talented minds. We are always interested in solving problems in daily life using technology. Imagine Cup is such a platform that can release our potential and show our abilities to the world. That’s why we’ve come here; we want to show our ideas to the world. Every member in our team has experience and technique in software design. We want to change the world with software, a powerful tool, so we chose Software Design competition. We also hope that our project can help people to improve their daily life. 

TEAM EXPERIENCE
We all are in an association named Microsoft Technology Club of HUST. There, we study new technology together and try to apply our ideas to real software projects. We also develop business software systems that can be used as products for schools or companies. Apart from this, two of us have experienced internships in companies. All these experiences have helped us in this competition.

HIGHLIGHTS
We think that the best part of the Imagine Cup competition is the positive and passionate attitude towards work from the Microsoft staff. This kind of attitude impresses us very much and has affected every team that participated. In such an atmosphere, every team works energetically trying to show their genius idea and excellent project sufficiently. We like the working environment in how it stimulates our potential more effectively.

GENESIS
When we got to know the Millennium Development Goals, we simply thought about health issues. The mother of YANG YuXin, the captain, is a community doctor in China; she provided us with lots of essential help. Also, the elder sister of WANG TianXin, a team member, is pregnant and has sensed the flaws of the current community health care. We made many surveys and found that improving community health care is an effective way to contribute to the accomplishment of the Millennium Development Goal regarding pregnant women, children, and chronic diseases. And from those, our project came out.

CHALLENGES
We faced many challenges in the development of our project. The biggest challenge was trying to, as students, act like real software engineers, who are familiar with the whole flow of developing a full software system, including analysis, design, project planning, and implementation. We have a lot technical experience, but lacked the experience of accomplishing a relatively large software system. In this project, we did market research, interviews, analysis, feature design and so on; all of these a great challenge for us. Additionally, as students, we needed to pay enough attention to our courses as well as doing our project. It was a big challenge for us to arrange our time well.

FUTURE PLANS
We want to perfect our project so that we can put it into business; that is our goal. For that goal, we have visited and consulted some experts in this field. We have received lots of advice and found that there are more problems to consider and solve from a business aspect then we expected e.g., logging for support from NGO and government institutions, obtaining acknowledgement in system reliability, security from relative institutions, and ways of gaining profit. Therefore, we will try to acquaint ourselves with the business operations after the Worldwide Finals and carry out the business course when the chance emerges.
TITLE OF PROJECT: Ideorama–Imagination Future

PROJECT OVERVIEW
An innovative system that proposes the generation of a Creative Universe filled with optimum solutions for the most significant problems the planet is facing; joining the imaginative potential of all human beings working as a single mind aligned to the infinite.

TECHNOLOGY/SOFTWARE USED
- Microsoft .Net Framework 3.5
- ASP.NET
- Web 2.0
- Windows live tools
- Popfly
- SQL server 2008
- LINQ
- Visual Studio 2008
- Silverlight 2.0
- Microsoft Expression

INSPIRATION
We believe this competition is the best way to help the world using technology; it’s an invitation to put our minds to work in the search for a better place to live in.

TEAM HISTORY
Nathalie and Natalia were friends from work at the University, but the whole team met in the Design Management Specialization; we became good friends in a short time because our personalities were very compatible, so, it’s great to be together now in this amazing experience!

TEAM EXPERIENCE
Our institute has participated in the last 4 Imagine Cups. Twice we’ve won the National Finals but this is the first time we will be representing our country in the World Finals!

HIGHLIGHTS
Actually we don’t know where to start; this is a great opportunity for students to have a real experience in a professional development; the chance to express to the world how their ideas could become the next step to change for good the way we live.

GENESIS
We were planning on doing something innovative for the last 8 months. The continuous search for this idea, combined with the beginning of this contest was the way Ideorama was born. This Software allows you to address any of the millennium goals by proposing a revolutionary idea to solve it.

CHALLENGES
We wanted to create a very interactive and attractive user interface, making it very comfortable and easy to use. Also, the generation of mental maps was complex because of the dynamic diagrams created during the runtime in the website.

FUTURE PLANS
Yes, actually we think this is a great business idea, we’ve considered three commercial services: Posting publicity for diverse corporations in search of good ideas for projects; subscriptions to unlock advanced functionalities of the software to improve the user’s potential; and finally, specialized support for Investigation and Development purposes.

MORE INFORMATION
http://www.udenar.edu.co - University of Narito
TITLE OF PROJECT: GeoScout.Net

PROJECT OVERVIEW
GeoScout.Net is a platform which main purpose is emphasizing information flows, bringing experts, organizations, societies and people together. The fundamental assumption of this platform began with e-Governance. To visualize it, you can picture a pyramid. The idea that guides us is to use a strong basis, and a very general system, which components can later be developed and used for specific and specialized purposes. Therefore, we developed an infrastructure that is very easily expanded. Integrating a new set of functionalities is a few clicks away. Infrastructure like this can allow any developer to build in independent modules, specialized for solving specific Millennium Development Goals. Our experts have advised to build a module that can implicitly help to solve multiple MDG, i.e. child and maternal health, stop spreading infectious diseases, and keep a sustainable environment as well as world partnership. GeoScout.Net brings together organizations with similar missions, through an incident tracking module. It is no wonder that you can read in newspapers that entire villages were wiped out by some disease, natural disaster or that flora and fauna are threatened by environment pollution. GeoScout.Net allows organizations to select some endangered areas, and publish this information to all other users.

TECHNOLOGY/SOFTWARE USED
- Microsoft SQL Server 2008
- Silverlight 2.0
- LINQ
- .NET Compact Framework 3.5
- Windows Live SDK
- Microsoft Expression Blend 2.0

- Microsoft SQL Server Compact 3.5
- WCF
- .NET Framework 3.5
- DeepEarth
- Microsoft Visual Studio 2008

INSPIRATION
At our university, we study information systems that are essential for today’s business world. Imagine Cup gave us a great chance to use our knowledge and do something good for society. Our research and study area is all about Software Design, so this year’s theme enables us to express the power of technology in order rediscover collaboration so that together we can build a brighter future.
TITLE OF PROJECT: Project HOPE: Healing Of People Everywhere

PROJECT OVERVIEW
Our project enables physicians and healthcare personnel to provide faster, more effective and more accessible healthcare in those parts of the world that need it the most. For example: helping those in developing countries and in countries of the Third World. By improving both healthcare and prevention, we enable physicians to save as many lives as possible.

TECHNOLOGY/SOFTWARE USED
• Microsoft .NET Framework 2.0 and 3.5, Project Mono
• XML Web Services
• SQLite Database
• Microsoft SQL Server 2008
• Microsoft Visual Studio 2008

INSPIRATION
We entered the Imagine Cup competition since it is a great opportunity to tackle and solve real-world problems, to learn cutting-edge technologies, to meet new people and make new friends, and to make the world a better place. We found the Software Design competition to be the most interesting one for us, not only because it is the most popular and challenging, but also because we wanted to put our software design skills to the test and to compete with other teams from around the world.

TEAM HISTORY
We were schoolmates back at our bachelor studies and have been friends ever since.

TEAM EXPERIENCE
We had experience with designing software from various projects that we solved throughout our studies of software engineering at university. Plus we practiced our software design skills during part-time jobs at IT companies.

HIGHLIGHTS
The best part of the competition up to now was undoubtedly when we won the local round in Czech Republic and advanced to the Worldwide Finals in Cairo, Egypt.

GENESIS
We first talked to two of our team members’ parents who are physicians and who connected us to medical personnel working as volunteers in countries of the Third World. Based on the valuable and practical information they gave us, we came up with a solution on how to improve healthcare in such countries in need. We were inspired by all three Millennium Development Goals related to healthcare: #4) Reduce child mortality, #5) Improve maternal health, and #6) Combat HIV/AIDS, malaria and other diseases. We also focused on prevention against diseases and on promoting health education, so we took into account (from a healthcare point of view) #2) Achieve universal primary education.

CHALLENGES
A personal challenge that we had to face was having late night team meetings via instant messaging and VoIP apps when we all could not meet in person. A challenge from a technological point of view that we had to tackle was utilizing various technologies and frameworks in order to create an interoperable and robust software solution.

FUTURE PLANS
We plan to deploy our project in developing countries and in countries of the Third World. We promised to do so to physicians and healthcare professionals that we consulted about our project. They are looking forward to using it.
Hello World

Team Members:
Sriram Chandra Sekaran
Shamma Al Marzoqo
Salha Al Kuwaiti
Alya Khan

Mentor:
Dr. Faheem Ahmed

TITLE OF PROJECT:  Suppli

PROJECT OVERVIEW
Suppli is all about connecting businesses; and by businesses we mean small shopkeepers, farmers, push-cart vendors, etc. We’re creating an information backbone linked with financial services (read: microfinance) that enable these small businesses to collaborate and run their activities more efficiently.

Our information backbone can be described as a smart, distributed supply chain management (SCM) solution that integrates with existing infrastructures such as those found in microfinance institutions and post offices. We’ve got voice activated, touch enabled and SMS based access systems, thus allowing individuals of all income levels and reading abilities to use our system with ease.

TECHNOLOGY/SOFTWARE USED
• Windows Server 2008
• IIS 7
• SQL Server 2008
• ASP .NET 3.5
• .NET 3.5
• Silverlight 3
• Microsoft Research India SMS Toolkit
• Windows Mobile 6
• Microsoft Office Communications Speech Server 2007
• .NET Micro Framework 3 (Tahoe II)

INSPIRATION
Most of us on the team are Microsoft student partners, so we’ve launched Imagine Cup in our universities for a few years now. We had the chance to look at what competitors from different countries accomplished in the last years through Channel 8 and we wanted to live the experience as well. We believe that the software solutions are the new era in technology, and will have a greater impact on people lives if used properly. Moreover, Software Design is our field; hence it is why we are a lot more comfortable competing in this category.

TEAM HISTORY
We had ideas that overlapped and coincided, so we thought - why not team up? Big thanks to Lana for introducing us to each other.

TEAM EXPERIENCE
Three members of our team are senior students in Software Engineering and they are taking many Software Design courses which included various topics in software design like software requirement specification, software architecture, software design quality/issues, software design patterns and more. The mentor of our team is a Software Engineering professor, so he is our first reference regarding any design issue we may have.

HIGHLIGHTS
Meeting lots of students from many places, sharing knowledge and experiences, learning new things from many different resources, and most importantly making new friends.

GENESIS
The MDG that inspired us most include: #1) Eradicate Extreme Poverty and Hunger and #8) Develop a Global Partnership for Development. We are also inspired by Dr. Muhammad Yousuf (the Grameen Bank founder and a Nobel Laureate) who says: “What the poor really need is a little capital to start climbing the economic ladder.”

CHALLENGES
Learning cutting edge Microsoft technologies and integrating the different components into our solution.

FUTURE PLANS
We’ve got a couple of tricks up our sleeves and some business plans. So we’ll definitely be open for business. We also look forward to partnering with microfinance institutions.

MORE INFORMATION
http://suppli.khoofia.com
OTS
Team Members:
Mai Medhat Galal Attia
Mai Wafik Ahmed Zaghloul
Nihal Abbas Fares Mohamed
Yomna Mahmoud Ibrahim Hassan

TITLE OF PROJECT: Traffory

PROJECT OVERVIEW
We use social community and technology to develop an organic, fuzzy, and inexpensive system that solves the air pollution problem by reducing CO2 emissions in developing countries.

TECHNOLOGY/SOFTWARE USED
- Visual Studio 2008
- ASP.NET
- SQL Server 2005
- Virtual Earth Map API
- Microsoft Live Web Services
- .NET Compact Framework
- Mobile Web
- Open CV Library
- Visual C++

INSPIRATION
We want to make a difference and help in solving problems in our country. We believe that technology is the solution and Imagine Cup is the best chance to make our dream comes true.

TEAM HISTORY
We are colleagues in the faculty of engineering at Ain Shams University. We had worked together on another project and decided to work together on this one.

TEAM EXPERIENCE
We took some C# courses in Windows applications, ASP.NET, SQL Server and .NET framework.

HIGHLIGHTS
The best part was the local finals. We enjoyed the environment, although it was hard work, and the experience of presenting a full project to a large number of people for the first time. We also enjoyed meeting with the other teams and seeing the different ideas developed by the students.

GENESIS
Air pollution is very big problem in Egypt and we face it every day. We wanted to think about an applicable, low cost solution for this problem especially for developing countries. We targeted environmental sustainability as our Millennium Development Goal.

CHALLENGES
Time was a very big challenge. We had a lot of work and final exams in college during the same time.

FUTURE PLANS
Imagine cup is a very helpful start for us. We plan to continue and deploy our project and start a new business.
Eureka! Labs

Team Members:
Gezahegn Fikadu
Salessawi Ferede
Tewodros Kidane

Mentor:
Sintayehu Challa

TITLE OF PROJECT:  **Dolphin: The Portable Heart Monitor**

PROJECT OVERVIEW
According to the World Health Organization (WHO), heart attacks (myocardial infarctions) are the leading cause of death all over the world. A heart attack could occur suddenly and it requires immediate medical attention. If it is untreated for a sufficient period it can cause damage to the heart muscles and eventually lead to death. Our system tries to solve the problem by creating an infrastructure that enables heart patients to get emergency medical care right when they need it. In a nutshell what our system does is, monitors a person’s electrocardiograph (ECG) and detect a heart attack at its earliest stage. After detection occurs it automatically reads the patient’s location from the GPS receiver and transmits it to an emergency center via the telephone network, where emergency personnel can view the location and name of the patient on a map.

TECHNOLOGY/SOFTWARE USED
- Visual Studio 2008
- .NET Framework
- .NET Compact Framework
- ASP.NET Web Service
- Windows Mobile SDK (including Microsoft FakeGPS helper)
- Windows Live SDK (Virtual Earth)
- SQL Server Express, TAPI

INSPIRATION
All three of us love to build things and we wanted to see where we stand among our peers by participating in this competition.

TEAM EXPERIENCE
Some of us worked as interns, and some of us were building our own commercial software.

HIGHLIGHTS
The best part of this competition has been trying to figure out how to make a certain feature work and then watching all those different components run together.

GENESIS
We wanted to try something new by working on a project area which we have not experienced before. And while brainstorming we came up with the idea of building an intelligent heart monitor. Our solution was inspired by MDG# 6.

CHALLENGES
To run the complete system we needed some biomedical instrumentation hardware which, we didn’t have. So we decided to build it ourselves. In doing so we faced some challenges coming up with an optimum way to connect it with a smart phone.

FUTURE PLANS
We are not exactly sure if our project is marketable in its current state but we are considering building something based on it that might enable us to launch a new business.
TITLE OF PROJECT: FEW (Find Eat Work)

PROJECT OVERVIEW
FEW is a web portal for users to find work and earn a living by collaboration and cooperation. FEW is a community portal mitigating poverty and hunger in a novice approach. In times where money is scarce and surplus resources exist, community members and donors are more willing to offer food or alternative services in trade rather than money. FEW focuses on this, motivating the community to take care of its own by availing work and eating opportunities, payable with other services or goodwill Euros (GW€). It also encourages volunteers and donors to identify where help is most needed, in directing their humanity efforts. The system is globally connected via community links; however, it effectively runs locally offline in a specific community. The idea is an efficient system distributing resources where they are most needed.

TECHNOLOGY/SOFTWARE USED
- Microsoft .NET
- ASP.NET
- C#
- Microsoft Access Database

INSPIRATION
Solving problems of United Nations proposed current challenges.

TEAM HISTORY
Studied some courses together.

TEAM EXPERIENCE
Our experience together in implementation is 1–4 years, and in business 1–2 years.

HIGHLIGHTS
FEW is an easy system to install and maintain. It can even work offline, and is extension-able.

GENESIS
Team FEW as completely inspired by the eradication of extreme hunger and poverty millennium goal. This was based on personal experiences by a number of team members on this issue as well its proximity to other team members. In figuring out how to address this effectively the teams submission emerged.

CHALLENGES
Our challenge has been in reaching isolated communities and also when we started to run the idea.

FUTURE PLANS
In the future, we plan to go to isolated communities and see what problems need to be solved.

MORE INFORMATION
http://www.it.lut.fi/wiki/doku.php/dotnet/0809/lut10/start
http://test.jananews.ly/
Help’Aged

Team Members:
- Gauthier Chanliau
- Regis Hanol
- Theo Le Du
- Sebastien Warin

Mentor:
Laure Portet

TITLE OF PROJECT: Help’Aged

PROJECT OVERVIEW
Help’Aged is a platform aiming at helping elderly people. On the client side, an easy-to-use-and-
highly-customizable interface provides a social networking function, helping elderly people stay in
touch with their family. There are also educational tools designed to stimulate memory and cognitive
functions and health care tools that helps them deal with chronic diseases. On the other side, we
provide an SDK that allows anyone to develop their own application which can then be published on
the HAAS (Help’Aged Application Store). Others can then buy and use this application.

TECHNOLOGY/SOFTWARE USED
- Microsoft .NET
- WPF
- MEF
- WCF
- Windows Azure
- Net Services
- Live ID
- Azure Storage
- Live Services/Mesh/Messenger
- IM (WLM, GTalk, Skype)
- ASP.NET
- Compact Framework (Mobile)
- Health Vault
- Visual Studio 2008 (Add-in, Template)

INSPIRATION
The main reason we chose the Software Design competition is the opportunity to think about and
build solutions to the biggest problems in the world and then present it to worldwide juries.

TEAM HISTORY
Last year the team with many of the same members represented France during the 2008 Worldwide
Finals. We ended up in the Top 12 worldwide and wanted to do better this year. One team member
from last year finished his studies and we have another Designer.

TEAM EXPERIENCE
Regis and Sebastien are both MSPs and are working in partnership with the school in the same
company (Wygwam) for the past two years. They’ve worked on several projects from e-commerce
websites to Windows Live Agents platform or domotic framework.

HIGHLIGHTS
Winning the national finals for a second time was definitively the best moment of the Imagine Cup
competition for now. We believe so much in our project and we hope the jury will appreciate it and
select it.

GENESIS
We basically wanted to do something to help people affected by Alzheimer’s Disease. After
considerable thought and some brainstorming sessions, we decided to widen our project to all
elderly people.

CHALLENGES
The most important challenge the team had to face while developing our solution was that we are all
from different cities in France. This complicates communication and time management, which must
be at its best to move forward.

FUTURE PLANS
We are currently working with several associations, partners, nursing homes and most of all elderly
people in order to build a complete version of our software.

MORE INFORMATION
www.help-aged.com
The Liaisoners

Team Members:
Rena Iwan
Peter Mucha,
Thomas Gangler

Mentors:
Sebastian Richly
Lars Iwer
Karoline Schanbrunn

TITLE OF PROJECT: Talk to aAqua (TaAqua)

PROJECT OVERVIEW
Our project, TaAqua, provides Indian farmers easier access to essential information. To overcome the predominant problem of illiteracy of the rural Indian population, we developed a telephone-based speech-dialog system with intuitive interaction. With our solution, we help the farmers help themselves. By using this telephone system, they can get advice from agricultural experts, enabling them to improve their personal circumstances. Additionally, they can retrieve up-to-date information regarding current weather warnings or current crop prices.

TECHNOLOGY/SOFTWARE USED
- C#
- Javascript
- Java
- Microsoft Windows Server 2003
- Microsoft SQL Server 2008
- Microsoft .NET Framework 3.5 SP 1
- pbxnsip 3
- Apache Axis 2
- ASP.NET
- Eclipse IDE 3.4
- Microsoft Speech Server 2007 Developer Edition
- Microsoft IIS 6
- Windows Workflow Foundation
- Apache Tomcat 5.5

INSPIRATION
We like the challenge of using a software solution to fulfill some of the outstanding Millennium Development Goals and the opportunity to help people to have a better life. We like to use the effective and modern technologies of Microsoft. The real life scenario of using the benefit of IT to achieve important improvements in living conditions is the best motivation we could ever get.

TEAM HISTORY
We are all computer science students of the University of Technology in Dresden and we met in a specific course for the Microsoft Imagine Cup taught by the chair of software technology.
SOFTWARE DESIGN

Ntua Team

Team Members:
Alvertis Iosif
Angelidakis Haris
Sideris Constantinos
Zampogiannis Costas
Mentor:
Gionis Georgios

TITLE OF PROJECT: Artificial Intelligence Doctor (AiD)

PROJECT OVERVIEW
AiD is an idea for a remote computer supported diagnosis of malaria. This means without the on site presence of medical personnel specifically trained for the needs of under-developed regions such as Africa.

TECHNOLOGY/SOFTWARE USED
• .NET
• SQL Server
• Windows 7
• WPF
• WCF
• We have also some tricky features, which will be revealed during the presentation...

INSPIRATION
Microsoft Imagine Cup competition is a great opportunity to show our creativity and to combine all the technical knowledge gained after 5 years studying at the University. We wanted to test our limits and live the experience of working on an innovative project as a team. The Software Design competition perfectly matches our unit’s background and it is a great challenge for us.

TEAM HISTORY
Two of our members, Iosif and Constantinos, participated in the Imagine Cup Greek Finals in 2008. They decided to compete again and with their prior experience we created our team. We already knew each other through our University, and we decided to create the “NTUA” team for a “second try”.

TEAM EXPERIENCE
Two of our members had a firsthand experience with the competition. Otherwise, our team’s Software Design background is mainly from our team projects.

HIGHLIGHTS
Definitely when we realized we were the winning team, at the Greek Finals.

GENESIS
We had 2-3 months of studying some different ideas we had come up with. After discussions with experts and additional research, we decided to implement the AiD project. Our first goal was "Child Mortality." But after some time we decided to focus on "Fight Serious Diseases, like malaria."

CHALLENGES
Our university’s schedule for the courses and the exams changed without warning. So suddenly, we all had less time to complete our solution. But the biggest challenge we had to face was to create a solution focused on developing countries, where technology is a "luxury" and there are so many technical and cultural restrictions. Fortunately, we made it, and here we are!

FUTURE PLANS
The AiD project is being developed with the support of the “Decision Support Systems Lab”, in National Technological University of Athens. They stated even before the Greek finals they are already willing to continue developing the AiD project no matter the final results. There is strong motivation from the team and others to keep working on this project.

MORE INFORMATION
http://www.epu.ntua.gr/ImagineCup2009GreekTeam.aspx
**BitWelders**

**Team Members:**
- Balazs Korodi
- Richard Petercsak
- Tamas Fogarasy
- Zoltan Arvai
- Mentor: Istvan Kerese

**TITLE OF PROJECT:** moholo

**PROJECT OVERVIEW**
Our software is a combination of many great things. The main concept is to promote and support humanitarian quests all around the globe. Our software is an innovative tool supervised by humanitarian organizations, and used by their carefully selected individuals working in developing countries. It attracts members joining from developed regions, by giving them a chance to explore, donate or adopt good causes. It gives the opportunity to learn more about professional contributors working on the field, but it also empowers native people by giving them the chance to create and uphold their own projects. Connecting donors, humanitarian professionals and victims on a personal level is our most essential mission. The ultimate goal is not just to show the World where support is needed most but to encourage affected local communities to share their own plans of development by using our tools to get vital support and broad publicity.

**TECHNOLOGY/SOFTWARE USED**
- Silverlight 3
- RIA Services
- Microsoft Tag
- Windows Presentation Foundation
- ADO.NET Data Services
- ADO.NET Entity Framework
- Live Maps
- Sync Framework
- Windows Azure
- SMS Server Toolkit
- PayPal SDK

**INSPIRATION**
One of our team members, Richard, is a former algorithm finalist and judge and it has been his dream to become a software development finalist. This year we finally managed to put a good team together and come out with - we believe - an impressive idea.

**TEAM HISTORY**
Three of us are attending the same university and are Microsoft Student Partners. Our designer has ongoing studies at an art school, and is working together with Zoltan ever since.

**TEAM EXPERIENCE**
Zoltan is a Microsoft MVP in the client application development area as well as a Microsoft Certified Trainer in .NET Development working at local Training Center. Formerly Zoltan and Tamas created a Silverlight and ASP.NET based website as an entry for Win the Web competition and were awarded a special prize. They are also working together in real life UX-centered projects.

**HIGHLIGHTS**
One of the greatest highlights of the past weeks was of course winning the local Imagine Cup final. Knowing that all our hard work finally paid off and that the jury shared our vision was an incredible feeling.

**GENESIS**
We had a chat in the car about posters presenting different foundations to aid a noble cause. After browsing the web for such ‘cause’ oriented solutions, we have found that none of them are really up for the task due to outdated technological background or unclear concept. As a matter of fact all of the goals had some kind of an influence to our solution. We are not committed to solving a single goal; we believe in giving the developing regions the opportunity to choose what kind of contributions they need and let them decide the priorities.

**CHALLENGES**
The only big challenge we had to face is the lack of time! But we are getting to it..

**FUTURE PLANS**
Our solutions are not profit oriented concepts; we just want to make a difference. However if any humanitarian organization believes that our solution has some potential, we are ready to work with them and fine tune it as they wish.
PEARL (Proactive Emergency Alerting and Response Loop)

PROJECT OVERVIEW
PEARL aims to help meet the 4th and 5th MDGs. 22% of 11 million global child deaths and 30% of global neonatal deaths take place in India. Majority of the causes of both maternal and child mortality in India are largely preventable but timely management is the key. Various factors contribute towards delay in seeking appropriate medical attention. Addressing these factors is essential to solve this problem.

The inability of rural populations (both seekers and providers) to react to medical emergencies is a significant contributor to rampant mother/child mortality and can be addressed if statistically established precursors to potentially life-threatening conditions are detected and timely treatment is sought and delivered. Rural health care in India is challenging and it is essential that the health care resources are appropriately targeted to achieve a significant reduction in maternal and child mortality. PEARL (Proactive Emergency Alerting and Response Loop) is an adapted emergency response service that consists of 3 modules: 1) The Information Dissemination Module (IDM) aims to redefine the term “emergency” from the villager’s perspective and motivate him/her to seek treatment for precursors to an emergency with urgency so that the threat of maternal/infant mortality and morbidity could be mitigated. (For instance, infants can be saved from dehydration if the parents report Diarrhea that lasts for 3 days). 2) The Emergency Response Module (ERM) aims to encourage and empower the rural population to report the symptoms that are statistically proven precursors to emergencies. Timely medical help can be made available and emergencies can be averted. It also enables the rural health services setup to function more efficiently by appropriately targeting available resources. 3) The Statistics and Reporting Module (SRM) will reveal the correlation between variables like symptoms, locations, terrain, predominant occupation, etc. Patterns can be monitored for and alerts generated if problems are detected. The reporting module can help report the first case in an epidemic and alert communities about an impending epidemic.

TEAM MEMBERS:

- Sujay Kakarmath
- Yogita Rochlani
- Sameet Singh Khajuria
- Noel Sequeira

Mentors:

- Dr. Sunita Shanbhag, Professor, Department of Preventive and Social Medicine
- Seth G.S., Medical College & K.E.M. Hospital, Mumbai, India

TITLES OF PROJECT:

- PEARL (Proactive Emergency Alerting and Response Loop)

TECHNOLOGY/SOFTWARE USED

- .NET 2.0
- ASP.NET
- VBVoice by Pronexus
- SQL Server
- .NET 2.0 based IVRS Management Tool

INSPIRATION

Microsoft Imagine Cup is a great platform for students to come up with innovative, technology-based solutions to solve the world’s toughest problems and present these at a forum that gives them international exposure. Sameet and Noel have been part of the Imagine Cup process. Last year, they emerged winners of the Interoperability Award at Paris. This year’s theme gives students an opportunity to address problems that lie outside the traditional realm of software. The theme had us all intrigued and determined to identify a pressing real world need and address it through an innovative yet grounded solution.

TEAM HISTORY

Some of us have been friends and some acquaintances over the last few years. Noel Sequeira and Sameet Singh come from the same undergraduate class in VESIT, Mumbai (an engineering school) while Yogita Rochlani and Sujay Kakarmath are from the same undergraduate class in LTMMC, Mumbai (a medical school). Noel, Yogita and Sujay have known each other for the last few years and have worked together in an organization takes up various community service projects. Dr. Shanbhag was an Associate Professor in the Department of Community Medicine at LTMMC, Mumbai, and supported and guided us in various projects. The idea of this project was born in one of the meetings with her and she has been integral in shaping it.

TEAM EXPERIENCE

Sameet and Noel have worked on a few projects together, although none with a rural focus. Yogita and Sujay have been involved with Mumbai Blood Donors, a web-based blood donor directory and are comfortable working with technology teams.

HIGHLIGHTS

The SDI National Finals! Bangalore has amazing weather and we made the most of every break we got! Yup, we enjoyed the competition too! :)

GENESIS

Since the theme this year involved issues pertaining to healthcare, it allowed for a mixed team of students from both the medical and engineering faculties. We decided to explore the possibility of solving a real world problem by overcoming limitations of existing technological as well as healthcare services. We began our Imagine Cup journey under the guidance of Dr. Shanbhag, a community health expert. After a series of brainstorming sessions, several meetings with our mentor and visits to a couple of villages, we identified a problem we felt impacted a large populace. Some careful grassroots research later, we realized that technology could play a significant role in a real-world solution. Our research helped us identify a pressure point and we proposed PEARL as a solution to help achieve the 4th and 5th MDGs.

CHALLENGES

The biggest challenge was for the medical students to grapple with technology and for the engineering students to identify where technology can fit in a rural environment. Designing for a rural user was a challenge that we particularly savored.

FUTURE PLANS

We plan to take this forward as a Research Project and publish our findings in the form of a research paper. This will involve setting up a pilot in a small area and then studying the acceptance, utilization and actual impact of such a solution in rural areas. Cost benefit and cost effectiveness studies are underway.

MORE INFORMATION

http://www.projectpearl.info
Title of Project: MOSES (Malaria Observation System and Endemic Surveillance)

Project Overview
MOSES is a solution that combines the advantages of hardware, software, and human resources in order to provide health care services especially for fighting back malaria in isolated rural areas, which is the main target of the number one tropical disease in this world.

Technology/Software Used
- Microsoft Windows Vista
- Microsoft Windows XP SP2
- Microsoft Windows Server 2008
- Microsoft Windows Mobile 6.1
- Microsoft IIS 7
- Microsoft .NET Framework 3.5
- Microsoft Speech API 5.1
- Microsoft Virtual Earth SDK
- Microsoft Health CUI
- Blacklight 2.0
- 3D Tools

Inspiration
We were inspired by the gloriousness of our ‘elder brother’ team, Antarmuka, with their project Butterfly which won Rural Innovation Award in 2008. We are highly determined to achieve the highest success this year in one of the most prestigious student technology competitions, the Imagine Cup! We chose to compete in the Software Design competition because we realize that software is powerful and the development of new technologies, especially in software design, can bring significant change for people who need help and assistance.

Team History
We came from different areas from all over Indonesia but attend the same university, Insitut Teknologi Bandung. Since we had the same passion and determination to compete in the Imagine Cup Technology Design competition, we decided to form a team, the Big Bang.

Team Experience
We did several software design projects for private companies, government, and personal needs. The projects varied from developing a management information system, websites, and a decision support system. Some of our member also had experiences in similar software design national and local competitions.

Highlights
The best part of this competition so far is when we did our final local presentation in front of so many people including news reporters and Microsoft leaders. The most unforgettable moment was when Steve Ballmer, CEO Microsoft Corporation, announced the winner of Indonesia Software Design Local Competition, Big Bang!

Genesis
We were inspired by the condition of our poor health care services, especially for people who live in rural area. Since we live in a big city, we can go to see medical workers when we get ill. The same condition can’t be expected in those rural areas, since the distribution of medically skilled workers and medical checkup devices is not good. Malaria is actually a simple disease if given the right diagnosis and treatment plan within 48 hours. However, due to lack of access to medical workers, it can’t be just a simple problem. That’s why we tried to solve the United Nation Millennium Development Goal #6: to combat malaria, HIV/AIDS, and other diseases.

Challenges
When we decided to solve the toughest problem in health care services, we realized that we don’t have any background in medical diagnosis and anything related with medical activities. We met and consulted with many doctors, medical experts, and people in the public health care department, in order to get the complete and comprehensive view of the problems that they face in their daily activities. Another challenge came from financial support, since there are some devices that are not in our range of purchase capability.

Future Plans
We hope that our project will become useful for this world, especially for the development of our nation; that’s why we have decided to continue the development of this project. Recently, we were contacted by a research team who’s been working on a pilot project in telemedicine in Indonesia, and we hope we can launch a new business in the telemedicine area.

More Information
http://davsam.wordpress.com
Trinity Sight

Team Members:
Aidan Lynch
Eoin O’Brien
Felim Ros McMahon
Maria Francesca O’Connor

Mentor: Daniel O’Byrne

TITLE OF PROJECT: Eye Surgery Training Simulator

PROJECT OVERVIEW
To help non-doctors perform cataract surgery in developing countries, we have developed a training simulator using low-cost, off the shelf components. Working with eye surgeons we decomposed the surgery into a series of discrete steps. Then, using infrared technology to track the exact position of our motion sensitive handheld controllers, we have simulated these surgery steps using game development techniques.

TECHNOLOGY/SOFTWARE USED
• XNA
• Visual Studio
• .NET
• Silverlight
• Blender
• Expression Web
• Expression Blend
• SQL Server
• Wii mote

INSPIRATION
We wanted to help raise awareness of this problem and the Imagine Cup has provided us with a wonderful forum in which to do this.

TEAM HISTORY
Our team met through college; we are all current third year students of Computer Science in Trinity College, Dublin. Through one of our courses, Software Engineering, we decided to form a team to enter the 2009 Imagine Cup.

TEAM EXPERIENCE
As Computer Science students, we have been studying Programming and Software Engineering throughout the degree. This involved at least one substantial software design project, as well as several smaller ones.

HIGHLIGHTS
Winning the Software Design final in Ireland was the highlight to date - as it was hosted at our own university.

GENESIS
We were inspired by the work done by Right to Sight in Africa and India treating cataracts and we wanted to assist them by developing our own training simulator. Blindness has a very large impact on many of the issues the UN Millennium Development Goals have set out to combat. Specifically our solution focuses on the health and education related goals.

CHALLENGES
This project took a lot of effort on all our parts and it was tough at times to balance it with our college commitments. We encountered a number of technical challenges while developing our simulator such as the calibration of our motion-sensitive controls and the collision detection of our various levels.

FUTURE PLANS
We intend to deploy the simulator in India and Africa through the Right to Sight charity. This will see the simulator used in 9 countries including Kenya, Ethiopia and Rwanda.

MORE INFORMATION
http://www.righttosight.com/
TITLE OF PROJECT: Out of the Cube

PROJECT OVERVIEW
Out of the Cube is a sophisticated puzzle game. The game is based on an augmented reality, an immersive cutting edge technology that adds computer graphics on top of real world, live video feed. The control over the game is done solely by manipulating a Rubik's cube, no old fashioned keyboard, mouse or joysticks are needed. The user sees both worlds on the computer screen, the real one in which they are holding a Rubik's cube in their hand, and the one in the virtual 3d graphic world. We aim to expose people, not only to the UN Millennium Development Goals, but also to current real world solutions and projects that relate to these goals. These projects are incorporated in the game play and furthermore the player is given the option to browse to the project site. This way the player not only learns about abstract concepts, they are given an actual opportunity to volunteer, contribute, or donate to these projects along the way.

TECHNOLOGY/SOFTWARE USED
- Windows XP
- Visual Studio 2008
- .NET Framework 3.0
- XNA 3 Game development platform
- XML Web Services Networking API
- DirectShow Multimedia framework
- ARToolkit Augmented Reality library
- Open CV Computer Vision and image processing library
- Autodesk Maya 3D modeling software
- Adobe Illustrator Graphics Editor

INSPIRATION
When we first read the UN Millennium Development Goals (MDG), we were embarrassed by our ignorance in these matters. When we approached our friends, we discovered that our ignorance is common in our age-group. Our conclusion was to change the way the MDG promotes itself, which led us to develop our concept.

TEAM HISTORY
Cooperation between the Visual Media Lab in Ben Gurion University and Screen Based Art Department in Bezalel Academy of Arts and Design led to form the Out of the Cube team of four.

TEAM EXPERIENCE
Nati and Kirill are both in their 3rd year of studies for B.Sc. in Computer Science, Julia is in her 3rd year of studies for B.Des in Visual Communication and Shoham is in his 3rd year of studies B.F.A. in Screen Based Arts, Animation division.

HIGHLIGHTS
Every level we advanced was an excitement in itself. Now we are heading to Cairo and we believe that the best is yet to come.

CHALLENGES
On the personal level, we discovered that designers and programmers think very differently. On the technological level, as far as we know, we are the first to use a Rubik’s cube as an interaction device. It required real time analysis of low quality camera frames.

FUTURE PLANS
What does your team plan on doing after the Worldwide Finals in Cairo, Egypt? Do you plan to use your project to launch a new business? Our greatest hope is to win the Worldwide Finals in Cairo and persuade the UN to launch our project worldwide.

MORE INFORMATION
http://www.vml.cs.bgu.ac.il/
PaTa-Track

Team Members:
Alessandro Verona
Elisa Buttussi
Ivano Zanello
Marco Amato
Mentor: Fabio Buttussi

TITLE OF PROJECT: PaTa-Track (Park Tailored Trackers)

PROJECT OVERVIEW
PaTa-Track (Park Tailored Trackers) is a serious game system whose aim is to educate children in taking care about our planet’s health. The system consists of a mobile serious game, a game editor, and a Web service. The mobile serious game runs on GPS-enabled Windows-based phones and is meant to be used, especially by children, all around the world. The mobile serious game we developed looks like a treasure hunt where treasures are replaced by virtual garbage scattered around a map of a real park. Children have to collect recyclable garbage and throw it in the right virtual bin, while they should leave dangerous garbage and point it out to park employees. The game also features info and question points, which can be associated with elements in the real world. For example, a question in the mobile serious game can concern a particular tree in the real world. Finally, the game exploits a 3D mascot: the puppy eagle Willy explains children how the game works, and then supports them throughout the whole game. Teachers, parents, and park employees can employ the game editor to create custom maps, teach different topics, and allow children to live a brand new experience every time they enjoy the mobile serious game. The Web service supports map sharing and tracks children, allowing them to see current position of their friends, and adults to monitor the position of the children they take care of.

TECHNOLOGY/SOFTWARE USED
- Windows Mobile 5.0 / 6.5 devices
- Windows Mobile SDK 5.0
- ASP.NET Web Service
- SQL Server 2008
- .NET Framework 3.5
- .NET Compact Framework 3.5
- Virtual Earth Interactive SDK
- Visual Studio 2008 Professional
- Expression Studio 2
- Blender

INSPIRATION
We all like to try out our skills and develop our ideas further. Therefore, we took on the challenge of Imagine Cup and we choose the Software Design competition, since it is the most suited to our skills and studies.

TEAM HISTORY
We are all students of the same university and we share the same passion for technology. Our mentor invited all his students to compete and we decided to take on the challenge.

TEAM EXPERIENCE
Each member has his/her own particular experience that they brought to the team: some of us are skilled in computer programming, others have expertise in computer graphics, web design and 3D modeling.

HIGHLIGHTS
We have really enjoyed working together to create something useful for our planet and that is, at the same time fun for children. Furthermore, we enjoyed meeting people on other teams and competing with them, presenting our project to the judges, and, of course, winning the trip to Egypt for the Worldwide Finals.

GENESIS
Our initial goal was to design and develop software to prevent environmental pollution, and we came up with the idea of a mobile serious game that looks like a garbage-treasure hunt. Later, we extended our idea to a complete serious game platform with game editing, multi-player, and monitoring functionalities. Putting together all our ideas, we developed a platform that can also be used to educate children in other topics than environmental care, and to prevent some serious health problems such as diabetes and cardiovascular diseases by motivating children to run outdoors.

CHALLENGES
We faced personal problems such as team and work organization. On the technological point of view, we had to master our skills in .NET programming and overcome the limitations of the mobile platform.

FUTURE PLANS
Our platform can be turned into a business solution and be sold to schools, natural parks, zoological gardens and other organizations.

MORE INFORMATION
http://hcilab.uniud.it/pata-track
Left Clik

Team Members:
Shawn Mclean
Derron Brown
Dwayne Samuels
Trevoir Williams

Mentor:
Henry Osborne

TITLE OF PROJECT:  RAIN (Resource Access Intelligent Network)

PROJECT OVERVIEW
RAIN is a solution that is being developed to tackle the problem of poverty and hunger. It is a platform that targets the agricultural sector in a bid to increase the productivity of farmers (with an emphasis on small farmers), open up markets for produce, create job opportunities, and allow corporate entities to easily manage large and multiple plots of land. RAIN currently uses Jamaica as the foundation of its design but the solution can be easily customized to achieve global impact.

TECHNOLOGY/SOFTWARE USED
• Visual Studio 2008
• Expression Studio
• .NET Framework 3.5 SP1
• Silverlight
• Windows Mobile 6 SDK
• Windows Communication Foundation

INSPIRATION
Our university has been competing in the Imagine Cup Software Design category since 2005 and we wanted to carry on the tradition. The mix of goals within the team (Software Dev. - Trevoir and Derron, Game Dev. - Shawn, Interface/Graphic Design - Dwayne) made software the best category for us to compete in this year.

TEAM EXPERIENCE
We gained most of our programming knowledge from research and experience from other projects. We have also been successful in several IT based local competitions.

HIGHLIGHTS
The best part to date is the knowledge that we have gained in using different technologies in the development of our solution.

GENESIS
Our initial idea was aimed at solving most, if not all, the Millennium Goals but we later realized time would not permit this. So we analyzed the current situation in our country and realized the stress the government has placed on the agricultural sector as the driving foe that will make the country self-reliant. Armed with this analysis, we decided to address the problem that will most directly impact agriculture in our country at large and by extension the world.

CHALLENGES
The most outstanding challenge was our lack of personal internet access and proper machines. In addition to that, geographical constraints made it harder for us to meet on as regular a basis as we would have liked.

FUTURE PLANS
We hope to receive funding to finish and launch the project in Jamaica to help bring its agricultural ambitions to fruition. After its success, we will expand it to a worldwide scale.

MORE INFORMATION
http://www.leftclik.blogspot.com/
TITLE OF PROJECT: PolyBooks

PROJECT OVERVIEW
PolyBooks is an application that makes free or open-source online textbook content available and accessible to children all over the world. This will dramatically lower textbook and other book-related fees, thus enabling affordable education in developing countries.

TECHNOLOGY/SOFTWARE USED
- Windows Presentation Foundation
- C#
- Microsoft SQL Server
- Language Grid
- W3Voice
- Document Talker Engine
- Touchless SDK

INSPIRATION
We were in the Software Design Competition for last year’s Imagine Cup, where we didn’t make it to the 2nd round. This year we’re back with an overhaul and face lift!

TEAM HISTORY
All of our team members are from a network-concerned lab at Doshisha University, Kyoto, Japan.

TEAM EXPERIENCE
Some of our members are experienced in building web applications, both on ASP.NET and other platforms.

HIGHLIGHTS
Extended brainstorming sessions with our team members!

GENESIS
Our solution is inspired by the Universal Education MDG. The more we dug into each of the Millennium Development Goals, the more we were convinced that education is the root of most of the problems. By providing better education, the world can be changed into a much better place. We noticed the fees for textbooks is a major factor that keeps parents from letting their children go to school, and at the same time, there’s a myriad of free educational textbook content on the Web today. So why not leverage the power of IT to match these two parties?

CHALLENGES
The biggest challenge we faced is how to cut the costs for the actual device that students will be using. This is very important because at the end of the day, the price of PCs can be the decisive factor that governs whether this is a valid solution or not.

FUTURE PLANS
At this moment we don’t intend to turn this project into a proprietary business. However, we believe this solution could steer the world away from poverty. We would like to see this idea live on.

MORE INFORMATION
Our lab at Doshisha University: http://w3.doshisha.ac.jp/

Kohei Kadowaki’s blog and twitter:
http://www.kadoppe.net/
http://twitter.com/kadoppe

Shinya Maeyama’s blog and twitter:
http://www.oddwit.com/blog
http://twitter.com/merikonjatta
CSTG

(Computer Science Group)

Team Members:
Mahmoud Darawsheh
Rasha Darawsheh

TITLE OF PROJECT: The Automatic Speech Translator to Sign Language

PROJECT OVERVIEW
CSTG’s project overview uses Windows APIs to translate speech in to sign languages, therefore enabling a deaf person to understand a talking person. This project will also be useful for helping a deaf person communicate with a blind person by translating what the deaf person typed on a special keyboard to spoken words. Once more, the deaf can also communicate with the blind at the same time. Our project aids airport companies to be able to accurately inform the deaf with the departure and the arrival times. This technology is not currently available and causes millions of dollars in losses for these companies based on lawsuits. It can also be used in conjunction with network and internet software and with Windows Messenger.

TECHNOLOGY/SOFTWARE USED
• Visual Studio 2008
• DirectX
• Speech SDK Library
• Expression Design
• Studio Max

INSPIRATION
We wanted to provide solutions to aid the problems of those people living with disabilities. We chose the Software Design competition so we could provide software that can change their world and provide real solutions.

TEAM HISTORY
We are in the same family and are used to working as team on all different types of projects.

TEAM EXPERIENCE
We have experience in programming and design using Visual Basic 2008, DirectX, Windows API, and Algorithms. We are also skilled in sign language and work well together as a team.

HIGHLIGHTS
The best part has been competing in the Imagine Cup itself. Viewing and understanding the skills of the computer and learning more about technology have been additional highlights.

GENESIS
We were working to find technology that is necessary and helpful to the deaf community. This required lots of checking and testing. The goal of our solution is to help the deaf communicate with others without the help of additional people and to help anyone communicate with the deaf without prior knowledge of sign language or use of a translator.

CHALLENGES
The largest challenge was how to make this project usable in noisy places. We solved this challenge by adding physical tools to the microphone.

FUTURE PLANS
We plan to improve the project and release it globally to help the deaf communicate anywhere and everywhere without the need of a translator.
Ferrum Logic

Team Members:
Almas Tuyakbayev Sabyrovich
Beisenbek Baisakov Miyatbekovich
Assan Zholdassov Kenzhegazyuly
Askar Akshabayev Kurmanalievich

Mentor:
Nurzhan Bakibayev

TITLE OF PROJECT:  www.donations.kz

PROJECT OVERVIEW
This project represents a solution to simplify the collection of donations for charitable purposes and is organized through the charity-oriented website www.donations.kz. The basic idea is to simplify the process of collecting donations. When creating a new record for the collection of donations, such as for children’s homes, people can pay through different payment systems and use convenient ways to make donations.

TECHNOLOGY/SOFTWARE USED
Technically, www.donations.kz is a website built on three-tier architecture: database level, business logic level and presentation level, through which can be achieved good performance and scalability. Website implemented using ASP.NET platform, Microsoft SQL Server 2008 database and web services.

INSPIRATION
Inspiration for us was to show our idea to the rest of the participants, to share experience, to learn new technologies, and see other solutions of global problems on the final tour. We’ve chose the Software Design because our team is experienced in software developing.

TEAM HISTORY
We are studying at the same university. We also have participated in competitions like ACM ICPC and trained together.

TEAM EXPERIENCE
Before participating in the Imagine Cup, our team took part in Kazakhstani IT projects contest named “NIF 50K”. We won 1st place and were awarded $ 50,000 to start a business. In addition, we developed software in Visual Studio 2008 for the interactive boards and developed teaching materials for secondary schools.

HIGHLIGHTS
This was the first time the Imagine Cup was held in Kazakhstan and we were greatly pleased to participate in it. We have gained important experience in presenting the project and answering the jury’s questions.

GENESIS
We have been interested in participating in a student technology competition from Microsoft. Our choice is based on a problem we face today in the world; we have decided to make our effort to solve the problem even if partly.

CHALLENGES
We faced the payment security challenge while developing our submission.

FUTURE PLANS
After the Worldwide Finals in Cairo, Egypt, we plan to run our project, maintain a website, and promote it in our country. We don’t want to commercialize www.donations.kz because it is a fully social project.

MORE INFORMATION
www.ferrumlogic.kz,
www.donations.kz
Wanna Be Alice

Team Members:
Siwon Choi
Dahee Shin
Jungkeun Kim
Eunyoung Jang

Mentor:
Hyunjong Lee

TITLE OF PROJECT:  Wanna Be Alice

PROJECT OVERVIEW
Imagine living in a world where people regularly “make someone else’s day.” The world we are living in is full of good people with warm hearts. A world where everyone lives every day with the immense joy of giving and receiving kindness is the world we are dreaming of; and the world, you too, will soon fall in love with. Famine, poverty, and diseases. It may be true so many people are suffering from tough problems that seem impossible to solve. However, we firmly believe that if people pass the goodness of their hearts forward by helping others, one step at a time, the world will become a better place. You can start by helping someone and passing them a card, while suggesting they pass it forward by helping others and to visit www.wannabealice.com. On the website, he can find out how others have received kindness from someone who was “passing it forward” and share his stories, too. We believe that it is essential to identify and attack the root of the problems instead of seeking temporary ease for such problems. In order to achieve this, we need a place of communication where people can gather, share their thoughts, and act together as a whole. We created a fun webpage called “WannabeAlice.com,” and we hope our webpage will serve as a connector for good people to solve the world’s toughest problems and to make it a better place.

TECHNOLOGY/SOFTWARE USED
• Web Service & XML Web Service
• .NET Framework
• Microsoft Silverlight 2.0
• Visual Studio

INSPIRATION
Each of our team members has tried to solve tough social problems and make the world a better place by helping others or by donating to charities. However, the changes we could make as individuals were so minimal that we didn’t really feel like we were making any progress. We were inspired by the idea that instead of making small, random, individual efforts, we could start a relay of people helping one another, gathering and connecting good people. Together we could seek solutions for the tough, unsolved problems, and make a much greater impact on the world. Microsoft Imagine Cup was perfect place to start our project; communicating with others who seek to make the world a better place by using IT, and ceaselessly motivating ourselves to accept more challenges. We decided to choose Software Design because we believe that developing a fun web-application is the best way to expose and share our ideas with many other people and connect them to solve the world’s problems both directly and indirectly.

TEAM HISTORY
Siwon, Dahee, and Jungken are studying computer science in Inha University, and Eunyoung is studying business in Sungkyunkwan University. We had been discussing how to solve world problems and to make the world a better place to live. One day, Siwon found this year’s theme of Microsoft Imagine Cup by chance and suggested to the others that we should participate. Everyone instantly agreed and started sharing thoughts and ideas.

TEAM EXPERIENCE
Siwon, Dahee, and Jungken had experience in software development individually, but we haven’t had the experience of developing together. Throughout the course of our development project, we had a lot of strong yet healthy arguments because each of us had different points of view and was specialized in different areas: three of us major in computer science and a fourth majors in business. We believe those different viewpoints and ideas had synergistic effects on our project. We are still in the process of refining our project and as always, we are making arguments much stronger, but with much more maturity.

HIGHLIGHTS
As a result of Imagine Cup Korea 2009, we had an opportunity to discuss our ideas with a lot of people with different backgrounds. It was fascinating to share our thoughts with students, professors, experts from NGOs, practitioners, and other Imagine Cup participants. We are very pleased that we were able to introduce our project and receive feedback from so many people because that’s what allowed us to grow up and see a bigger picture.

GENESIS
Although there’s a list of eight specific Millennium Development Goals, we thought it was essential to figure out the root of all problems instead of trying to make temporary alleviation for specific problems. We found the need for a place of communication where people can gather and discuss the solutions for the unsolved world problems and putting collaborative efforts to solve the problems. We believe by gathering many good people and solving the tough problems together, we can address the unsolved world problems and make the world a better place to live.

CHALLENGES
The biggest challenge was that each of our team members had different specialties, and thus, different viewpoints. We had lots of intense but productive arguments because whenever we try to decide something, each of us had different ideas and perspectives. Persuading other team members was challenging at first, but as time went, we learned how to appreciate other’s thoughts and merge different ideas into better ones. Looking back, we believe the different viewpoints and specializations created a synergistic effect and allowed us to see a bigger picture.

FUTURE PLANS
First, we want to show our project to as many people as possible in Cairo, Egypt, and listen to their feedback. Before pursuing further development, we want to make sure that our concept and solution is plausible and achievable. Also, we believe it is essential to gather lots of people who share the same vision with us in order to make this project possible. Therefore, we want to start this project as an open source project and work together with many other people around the world.

MORE INFORMATION
www.wannabealice.com
PROJECT OVERVIEW
This Project assists the blind by providing a guidance aid that allows them to move around independently. It consists of an embedded device attached to a mobile phone with GPS, coupled with voice recognition capabilities. It also contains four sensors that alert the blind in different directions for avoiding obstacles in their path and guiding them to their desired destination. The device will be able to connect directly to a satellite which will send GPS information to be used by the software part of the device to enable the device to vibrate in multiple directions. The system can be enhanced further to allow for it to be used indoors by allowing the user to download a building’s blueprint directly onto the device and interact with it accordingly.

TECHNOLOGY/SOFTWARE USED
• OS: Windows Mobile 6.0 IDE: Visual Studio 2008
• SQL Server
• CE MapPoint

INSPIRATION
We love the computer science field in general and it feels really great after completing a project that would benefit and help people. Imagine Cup was the only opportunity we found that encourages us to work on this idea. In addition, the life-time adventure we will experience during our participation in Imagine Cup and the joy and excitement of competing with other students all around the globe provoked us to participate in this competition.

TEAM EXPERIENCE
We had a combination of knowledge of different programming languages starting with C++ and all the way up to higher level languages like Java and PHP. We also have very basic knowledge in C#, however, when we started our project we had to learn C# in more depth.

HIGHLIGHTS
The Regional Competition was an amazing experience. We had to present our idea during the regional competition in front of the media and judges that were from top level positions at various companies and institutions in the region.

GENESIS
Make benefits of new technologies available in cooperation with the private sector, especially information and communications technologies.

CHALLENGES
It is very challenging to keep up with the E-Eye project and our school work. We had 2 months to prepare our project for the Imagine Cup Worldwide Finals after the regional competition. It was also tough to work on a project with new technologies that none of us were familiar with. We had to improvise and learn most of the technologies we used during the project development phase.

FUTURE PLANS
We have planned to continue working and improving the project even after the Imagine Cup Finals. We could go as far as launching a new business based on our E-Eye project.

MORE INFORMATION
Saleh’s blog: http://blog.flashcolony.com
Our DotNet Club website: http://dnc.ku.edu.kw
TITLE OF PROJECT: Service to Survive “S2S”

PROJECT OVERVIEW
Service to Survive (S2S) is a web application based on a global partnership to help those in need by allowing fortunate people to use trade to help them. Our mechanism then gives “points” in return. S2S connects people to each other and allows them to offer what they own and no longer need, allowing them to trade for things they do need without paying money. Moreover, the application is built to help poor people as it encourages others to help and gain points. Sponsors will advertise on the website and will be there to help. S2S will provide extra points to those users who help others in any possible way and then these points can be traded for things posted. S2S will even spur competition between users. It will encourage groups (especially university students) to imagine a helpful idea that might change the environment of a certain place, allowing people to be healthier and better accommodating most of their social needs. The best idea will be the most efficient and have the lowest cost. The group who proposes this idea will facilitate in building and designing it. They will be the winner and get free points to receive anything they want. Sponsors will help in providing these free points.

TECHNOLOGY/SOFTWARE USED
- Silverlight 2.0
- Expression Blend 2.0
- Visual Studio 2008
- C#
- .NET Framework 3.5
- LINQ
- WebServices

INSPIRATION
Imagine Cup is not just a great experience for any student to have; it is a door to explore your ideas for the world. Our passion is to help, to win, and to have fun at the Worldwide Finals. We chose Software Design because we are all software developers and designers. It is difficult to find existing software that can help in solving the problems found in this theme.
TEAM EXPERIENCE
The Malaysia’s Imagine Cup 2009 was the most exciting part working as a team. We really enjoyed meeting all the other teams from the public and private universities around the country. We realized that our software has so much potential to help in solving the agricultural problems in Malaysia. The most memorable moment was during the announcement that our team will represent Malaysia at the worldwide final in Egypt.

HIGHLIGHTS
We are able to see many software solutions during final Presentation at national level. We had the chance to compete with the best teams from other universities in Malaysia. We also had the chance to visit Microsoft Malaysia office at 29th floor of PETRONAS Twin Towers.

GENESIS
Decision making has always been a major headache for farmers, especially during the process of paddy seeding, fertilizing or harvesting seasons due to unpredictable weather. Farmers are confused with the weather forecast information from television, radio, and newspaper. Most of the times the information reached the farmers quite late which will greatly affects their farming activities. GreenEve2Peace is collaborating with MADA in helping the farmer community to make the right decision by providing them the correct and up to date broadcast weather information and recommend time table of farming activities. We hope to achieve the UN Millennium Development Goal:
1. Goal #1- Eradicate extreme hunger and poverty
2. Goal #7- Ensure environmental sustainability

CHALLENGES
We face challenges in understanding paddy planting process from MADA and farmer community in Malaysia. We have to conduct interviews to understand their problems faced during farming activities. We need to consider the cost of the technologies used to deploy our solution so that it is affordable to the farmers.

FUTURE PLANS
We wish to obtain a grant from government to implement our solution within six months time. We will be working closely with MADA to implement the system stage by stage. In addition, we will also be extending our solution to include other agriculture sectors like livestock (chicken, duck and pig) and fishery. We would like to extend it to our neighboring countries once we have successfully implemented the system in Malaysia. For that reason, we are looking forward to launch this project in Malaysia to see if our solution is able to help the farmer’s communities increase their life style.

MORE INFORMATION
http://team-capricorn.blogspot.com/
http://www.cs.usm.my/announcements/Imagine_09.php

TEAM OF PROJECT: GreenEve2Peace

PROJECT OVERVIEW
Rice is the staple food in South East of Asia. To ensure the steady supply of rice, we need to help farmers by taking into consideration the multiple factors that affect crop production. Muda Agricultural Development Authority (MADA) is a government agency in Malaysia who is responsible in improving the socio-economic well being of large portion of the rural population and increasing the rice yield for national requirements. Currently, most of the tasks being carried out by MADA are done manually through letter, poster and portable speaker. Through the use of technology, GreenEve2Peace assist MADA in helping the farmer community in Malaysia to solve their problems that will affect their farming activities. We utilize the simple text messaging services on cell phone, which is low cost and easily accessible to the farmers.

TECHNOLOGY/SOFTWARE USED
- SQL Server 2008
- Window Presentation Foundation (WPF) Technology
- Silverlight 2.0 Technology
- Simple Mobile Phone as GSM Modem

INSPIRATION
We first heard about Imagine Cup Software Design competition from our course mates, who were one of the Software Design worldwide finalists in 2008. Their valuable experience gained during this competition was inspiring. For that reason we tailored our final year project to be inline with this year Imagine Cup’s theme. In addition, our mentor encouraged us to participate in Malaysia’s Imagine Cup 2009. We hope to share, gain experiences and broaden our knowledge by participating in Imagine Cup competition.

TEAM HISTORY
Our team is known as the Capricorn team and we are students from the School of Computer Sciences, Universiti Sains Malaysia (USM), Malaysia.
Cairo finals so far. With sheer determination to win. This is what pushed us to go that extra mile and what got us to the Development, we knew that Software Design is what we are best at. We entered the competition With this year's theme, we were also able to use these skills to help solve real world problems. Imagine Cup is a fast growing, respectable, international programming competition which we knew INSPIRATION

- Microsoft Virtual Earth
- Microsoft Silverlight 2.0
- Microsoft Virtual Earth

TEAM EXPERIENCE

All team members are experienced in software design and have excellent programming skills. However, every team member has his own specialization. These include: web-design, C# programming, database design, system design, testing, research and presentation.

HIGHLIGHTS

The best part of the Imagine Cup so far is the experience of working in a team. This mimicked how software companies work. We set up a small office and learned how to work together, discuss problems and make decisions on how to design and implement the system. Every step throughout the project lifecycle was discussed thoroughly and agreed upon by all team members. The second best part of the Imagine Cup was when we won the local Imagine Cup competition. The satisfaction that our hard work paid off was beyond words.

GENESIS

The first task was to come up with an idea. Every team member came up with his own idea. Some ideas included education, the environment and health. However, the one we chose relates to poverty since it has the potential to impact a large number of people. This was inspired by the first Millennium Development Goal which is to End Hunger and Poverty and the large amount of money transacted on the internet daily. Initially the idea was to collect money from an e-commerce website and send it to the poor. Following further brainstorming we beefed up our idea and came up with a full blown system which will be capable of integrating with any e-commerce website or system, using graphics to show where the money is going and collect some of the money being transacted online. We also interviewed charity organizations such as the Malta Red Cross Society who helped us to identify some problems that need to be solved when it comes to donations. Another reason for choosing this idea is its uniqueness. We could not find another system online which gave e-commerce websites the ability to integrate a respectable donation system easily.

CHALLENGES

A constant technological challenge which we faced was which technology was best for solving the problems in question. This required constant research and at times meeting with industry experts to help us decide. These issues arose due to a number of Microsoft and other technologies that have similarities and differences. Other personal challenges which we overcame were the minor disagreements between team members with regards to the system design. These enabled us to discuss the problem further and most of the time it proved important to do so as the outcome resulted in a better and improved system design.

FUTURE PLANS

DonationExpress requires a large initial investment which will go towards the marketing required to make it a reputable source to collect donations. Due to the nature of the system and the large amount of donations misused in the past, DonationExpress' biggest challenge is to be accepted as a trusted source to collect donations. We hope that we get the opportunity to make DonationExpress a reality because of its potential to actually make a difference to the world!

MORE INFORMATION

www.donationexpress.org

TEAM HISTORY

All team members met at the University of Malta three years ago. We all worked together on various University assignments and projects. We also had the opportunity to work together during our part time jobs as software developers. We found that we worked well together and it came natural to us to enter into the Imagine Cup as a team. Our teamwork and different skills possessed by each member is what helped us to win the local Imagine Cup competition.
Movement Studio

Team Members:
Claudia Patricia Flores Perez
David Casillas Tovar
Alejandro Bermudez Fierro
Adrian Revuelta Cuauhtli

Mentor:
Dr. Félix Martínez Rios

**TITLE OF PROJECT:** DYO

**PROJECT OVERVIEW**
Our project is aimed at providing a new way for users to interact with their computers and devices. Through the use of image analysis, color segmentation and artificial intelligence algorithms, DYO can detect any part of the body the user chooses. DYO’s cost is very low because we only need a webcam and a processing unit powerful enough to deal with DYO’s algorithm.

**TECHNOLOGY/SOFTWARE USED**
Our project is aimed at providing a new way for users to interact with their computers and devices. Through the use of image analysis, color segmentation and artificial intelligence algorithms, DYO can detect any part of the body the user chooses. DYO’s cost is very low because we only need a webcam and a processing unit powerful enough to deal with DYO’s algorithm.

**INSPIRATION**
Our mentor, Félix Martínez, first heard of the Imagine Cup competition. He proposed that we join this competition to get a general idea of what these kind of events are like and to see how prepared we are for this challenge. We are all IT students, so software design was the obvious option to participate in.

**TEAM HISTORY**
We are all students attending the same university and in the same major. We share the same passion for technology, creativity and innovation.

**TEAM EXPERIENCE**
At our university (Universidad Panamericana) we find ourselves constantly challenged by our teachers with innovative and hard to implement software design projects.

**HIGHLIGHTS**
The best part has been, without a doubt, the day of the local competition. It was great to see all the original projects from different schools all over Mexico. The whole event was exciting throughout the entire day.

**GENESIS**
At the local stage of the competition in Mexico, a requirement was to create software for handicapped children so we visited a rehabilitation center. We saw what the children needed and liked best. That’s how DYO was born. Primary education and health are the goals our project is aimed at.

**CHALLENGES**
Because we have just started studying our major in IT, we didn’t have the necessary knowledge to implement the idea we had chosen. We had to do a LOT of research in the fields of computer vision, image segmentation and artificial intelligence.

**FUTURE PLANS**
We believe our project is unique and has a lot of potential both by improving the users’ physical and emotional abilities as well as in business. In the future we would like to start our own enterprise, regardless of our result at Imagine Cup.

**MORE INFORMATION**
Our blog: http://twitter.com/movement_studio
Our school: www.upmx.mx
SWEK

Team Members:
EL Ouali Alami mham, Hassan Hijazi Hajouj, Nabil Zrigui, Brahim Chami
Mentor: Dr. Hamid Harroud

TITLE OF PROJECT: Smart Farming Information System

PROJECT OVERVIEW
Farmers lack the necessary information to increase their land’s productivity. For example, in Morocco, the majority of farmers are not aware of the efficient amount of water required for better productivity. Thus, they use more water than the optimal amount. This act not only wastes water, but it can cause a disease. SWEK is able to increase the productivity of farmers through giving them all the necessary up-to-date and credible information.

TECHNOLOGY/SOFTWARE USED
• Visual Studio 2008
• Virtual Earth 6 SQL Server 2008
• ActivExpert SMS Server Speech SDK 5.1
• ASP.NET

INSPIRATION
Our team is composed of 4 engineering students; half of them come from a computer science school while the remaining are doing engineering and management science. Before the start of the competition, we were good friends who were always looking for opportunities to show our skills. After the organization of the previous edition of Imagine Cup in our school, we thought that this competition is one that can test us against students from all over the world. We chose to compete in Software Design competition because it can help us to test our engineering and business skills.

TEAM HISTORY
We are studying in a university of only 360 engineering students. Therefore, we had the chance to take courses together.

TEAM EXPERIENCE
We were always friends, but never got the chance to work together in a project.

HIGHLIGHTS
The best part of the competition was competing in Morocco and hearing “the winner is Alakhawayn University with the project of Smart Water Efficiency System”.

GENESIS
Even though all the millennium goals are important, we thought that we should concentrate on two, at most. After searching the net, we found that many farmers in Morocco lack useful information. Then, we decided to do a full irrigation system for them. After discussing this with agricultural professionals, we had to reorient our idea towards giving credible information to farmers. By doing so, we are fighting poverty and hunger.

CHALLENGES
Working with Virtual earth maps was the hardest part.

FUTURE PLANS
For the moment, we don’t have any future plans, but we would like to go as far as possible with this project.
**Title of Project:** Drug Donation Network

**Project Overview**
Drug Donation Network is a platform for the donation of medication mainly to developing countries with the aim to improve the quality of drug donations by a powerful combination of technologies.

**Technology/Software Used**
- RFID to identify medication
- GPS to locate medication shipments
- Microsoft SQL Server
- Microsoft Silverlight
- Microsoft Virtual Earth
- Microsoft ASP.NET
- Windows Mobile technologies
- SMS Server Toolkit

**Inspiration**
Microsoft Netherlands organized an introduction day at our university. The MS-employees and MSPs made us enthusiastic and the theme especially appealed to us. After a brainstorm session we decided to subscribe with our Drug Donation Network. We chose software design because this is part of our study.

**Team History**
We are all first year students in Economics & IT at Erasmus University Rotterdam.

**Team Experience**
We did some web designing before and knew how to program basic applications in Java.

**Highlights**
For us the absolute best moment thus far in this Imagine Cup, were the Dutch Finals. Especially those couple of minutes right before the announcement of the winners.

**Genesis**
We read a couple of articles about the waste of medication and the costs involved. We felt that these problems were shocking, especially in these times with such advanced technology. Fortunately this relates to Millennium Goal #6 and #8. So with this feeling, we were inspired to use our creativity and put it to work. We soon came up with a couple ideas on what solution we should create and in the preceding months, expanded our idea to the platform we have today.

**Challenges**
There were a couple of challenges we had to face. First of all the limited amount of time; it was quite a challenge to get everything ready and operating on time, before the finals. Also we had some challenges in contacting some organizations, foundations and government institutes. Some technological challenges were implementing RFID.

**Future Plans**
Absolutely, we belief our solution can significantly improve the quality of drug donations. Because we see great opportunities for this project, we are very committed about our business plan and launching a future business to achieve our mission.

**More Information**
http://twitter.com/freshgen
Team Think!

Team Members:
- Michael Trengrove
- Graham Smart
- Asa Wong

Mentors:
- Dave Bales, Statistics New Zealand
- Stuart Charters, Lincoln University

TITLE OF PROJECT: LearnIT

PROJECT OVERVIEW
We are tackling global illiteracy head on. We see that almost 1 billion people worldwide cannot read or write their own name as totally unacceptable. For this reason we have developed an educational system that runs on Tablet PCs and Microsoft Windows Mobile Devices. The system can be used by people who can’t read or write or perhaps haven’t used technology before, enabling the people who need this the most to successfully begin to pick up the basics of literacy.

TECHNOLOGY/SOFTWARE USED
- Visual Studio 2008
- Tablet PC
- Compact Framework
- Rich Media
- Animation

INSPIRATION
After hearing about the competition theme at University we immediately decided to enter. To be involved in something that helps improve the lives of others through innovative technology is where we believe the future of technology lies. It is an exciting and very rewarding thing to be involved in.

TEAM HISTORY
We met at Lincoln University. Our team has been through our fair share of trials. From the original three dropping down to two in December, then finally down to one (just me) three weeks out from the finish line, to having two saviors jump on board and put in some serious hours which enabled us to take out the New Zealand Finals.

TEAM EXPERIENCE
We had some experience from projects through our Software and I.T. degree; but nothing really prepares you for the task of taking something from a seed concept to developing the idea into software complete with a 2-3 year business model.

HIGHLIGHTS
The best part has been working as a team to try and achieve something that is larger than all of us. To work on developing software that potentially can free millions from the cycle of poverty is an exciting if not slightly daunting project to be involved in.

GENESIS
After reviewing the development goals we decided that universal education, along with its devastating statistics, is the one that can have the biggest impact on helping to achieve the other seven. We see helping solve universal education as having the most potential to empower people to be positive, active members in their societies.

CHALLENGES
Balancing Imagine Cup work with a full university schedule has been the biggest challenge. It has taught us better time management skills!

FUTURE PLANS
It would be exciting to see our product developed to the market stage. Currently we are solely focusing on the Worldwide Finals and further development for that. Who knows after the finals... the world’s your oyster.

MORE INFORMATION
- www.twitter.com/TeamThinkNZ
- www.teamthink.org.nz
**TeamX**

Team Members:
- Opeyemi Francis Akinnawo
- John Bello
- Celestine Ezeokoye

Mentor: Dr. E.P. Fasina

**TITLE OF PROJECT:** Autonomous Health System X (AHSysX)

**PROJECT OVERVIEW**

Autonomous Health System X (AHSysX) is a health care system that provides automated response to ailing pregnant mothers and/or their infants. The system comprises of a Windows service that listens to mothers' requests which come as Short Message Service (SMS) messages, parses the message to discover what the mother wants and forwards the request to field agents and/or doctors that would provide solution to the mothers' problems. The mother is required to register with the system to use it. Upon registration, the system automates her ante-natal schedules and reminds her at intervals via SMS. When she is finally delivered of the child, the child is registered and the child's immunization schedules and developmental milestones are automatically fixed. In the case of an emergency, an ambulance is automatically located via GPS and posted to serve her requests.

**TECHNOLOGY/SOFTWARE USED**

- Microsoft .NET framework 3.5
- Microsoft Visual Studio 2008
- Microsoft Visual C# and Visual Basic
- XML Web Services
- Microsoft SQL Server 2008 (Developer Edition)
- ASP.NET 2.0, Windows Services
- AJAX
- Prototype JavaScript library
- Script.aculo.us JavaScript Library
- Microsoft IIS 7.0
- Microsoft Internet Explorer 8
- Software as a Service (SaaS)
- Linq
- Web-based SMS service by Coplanarc (http://www.coplanarc.com)
- Microsoft Windows Vista Home Premium
- LightWave GSM/GPRS Modem
- Windows Live GPS.

**INSPIRATION**

One member of the team, Celestine, was part of the team that represented Nigeria at Paris last year and wanted to take part again this year. Also, the team mentor had this idea that would change the way health care was being handled and the Imagine Cup was the perfect place to demonstrate it.

**TEAM HISTORY**

Our team mentor wanted to build the team on the experience of last year so Celestine was on the team. Next, John joined the team with recommendations from someone. Finally, Francis indicated interest and was given an opportunity to participate.

**TEAM EXPERIENCE**

Prior to the Imagine Cup, the team did not have any collective software design experience. The imagine cup gave us the opportunity to bring our individual experiences into play.

**HIGHLIGHTS**

The opportunity we have been given as Nigerians to help solve the problems facing our beloved nation. Talking to doctors, interacting with industry professionals and speaking with victims has exposed us to the big picture of problem solving using technology.

**GENESIS**

Interaction with our team mentor ensured that we streamlined our ideas towards achieving the 4th and the 5th MDGs. He made us understand that these goals would make the most impact in Nigeria.

**CHALLENGES**

The biggest challenge was unavailability of infrastructure. Also the development was going on while school was in session. This meant that we had to spend a lot of sleepless nights and leave a lot of homework undone. We did not always have access to the internet so we had difficulties in matching our skill level with what is currently in vogue.

**FUTURE PLANS**

Yes. Presently, we are making arrangements to test run the solution in Lagos state and private hospitals in Nigeria.

**MORE INFORMATION**

TITLE OF PROJECT: LEBEN

PROJECT OVERVIEW
Child mortality rate and maternal mortality rate is very high in third world countries. In Pakistan ten out of hundred children die before reaching the age of five. Also after sub Saharan countries infant child mortality is highest in Pakistan. This current situation worries us and we decided to present a solution for the reduction of child mortality rate and maternal mortality rate. We also know that a practical solution will be one with low implementation and maintenance costs; affordability rules when it comes to poor customers. In Pakistan there are 92500 LHWs (lady health workers) working on ground so we took it as an opportunity to use available resources and devised a mechanism for data collection. We let health worker communicate with our server using simple SMS text messaging. Our server automatically generates the immunization charts of the mother and children. Also the medical history of both will be able to be carried anywhere in the world. This automation process is just a small fragment of the real solution needed. PHC (primary health and care) planners need a deep insight of the socio dynamics of a region in order to correctly identify the causes of child mortality rate and maternal mortality rate. Other variables need to be considered like literacy rate, cultural norms, religious factors, understandability issues etc. The data sent to our system from the HW will help identify these variables, better defining the problem of the area and allowing the PHC planners to deploy a workable strategy for that particular area. Additionally, as we monitor the HW performance and location variables, we can anticipate the type and amount of vaccination stock required for a particular area. Lastly our system informs parents about epidemic disease spread out and its precautionary measures.

TECHNOLOGY/SOFTWARE USED
• Visual Studio Professional
• Interoperability techniques
• Use of Windows Mobile technologies
• ASP.NET
• SQL Server 2008
• WPF
• .NET Framework 3.5
• Windows Live SDK
• .NET Compact Framework
• XML
• WCF
• XAML

INSPIRATION
It was last year when we heard about Imagine Cup from one of our university fellows who participated in Imagine Cup 2008 and took 2nd in locals. This led us to visiting the IC site where we watched a few videos inspiring us to join the competition in IC 2009. Software Design is the king of the Imagine Cup so we found ourselves more enthusiastic about it. Also our understanding about it was more than other categories.

TEAM HISTORY
All four team members are students in UET Lahore and we have been working on different projects right from the beginning.

TEAM EXPERIENCE
As we are from the same university, we have experience working on different projects, both software and hardware. We have developed projects like human face editor, air port simulation system, messenger which extracts emotions from sentences and generates emoticons, robot for plowing, etc.

HIGHLIGHTS
It was definitely to compete in local finals; we hope that it will be more fun to participate in the worlds finals.

GENESIS
After reading and analyzing all the MDGs especially according to our country perspective, we decided to work on child mortality and maternal mortality. As these are the problems of third world countries and their governments cannot afford expensive solutions, we really want to present a solution which is cost and performance effective. We studied about the WHO IMCI program and UNICEF efforts to help reduce child mortality which helped us to use our current available resources. Also we discussed our idea with a local NGO who gave a better understanding of the subject. Finally it all ended up in a solution we call LEBEN (meaning life).

CHALLENGES
We know languages like C#, C++, SQL etc but technologies like WCF, WPF, Live Windows SDK, etc. were new to us. So before starting development we spent a lot of time understanding these technologies. Initially we were using GSM modem for SMS text messing. Interfacing it was a difficult job because we received lots of exceptions, even unhandled, so we finally moved to a SMS gateway for which we are hosting our web portal. So stage after stage there was a challenge but one has to take them.

FUTURE PLANS
We are definitely planning to work with NGOs. We have done a cost benefit analysis of our product and are certain that this is a good business idea.

MORE INFORMATION
http://www.phc.gov.pk/
Weather Prediction

Team Members:
Marwa Foaad Jumaa Al-roby
Nagwa Ahmed Mohammed Baraka
Sara Nabel Jamel Kohel

TITLE OF PROJECT: Weather Forecasting using Artificial Neural Networks

PROJECT OVERVIEW
In our project, we build a robust intelligent system (software product) that is able to predict the main elements of the weather (maximum, minimum, average temperature, cloud condition, and extent of rainfall) using Artificial Neural Networks (ANNs). The model will be able to accurately predict the weather using the historical data recorded locally. The prediction process will be done in a creative and new approach. The system can be adopted for any city in the world with a high degree of prediction accuracy; furthermore, the system will be tested upon many criteria to check its performance. The current weather forecasting is obtained either by using traditional methods which suffer from many difficulties and problems in accuracy or through modern methods using satellite-based systems that are costlier and require large support systems. Our project provides an average solution that does not require high costs and efforts but at the same time give a high accuracy result. The application area of the project can be meteorological departments and their direct clients. This will help others gain the benefits from this system including radio & television channels, ministry of agriculture, ministry of tourism, and others.

TECHNOLOGY/SOFTWARE USED
• MapPoint 2006
• Microsoft Visual Studio .NET
• Microsoft Visio
• Microsoft Project
• Microsoft Office

INSPIRATION
The idea of finding a solution to real problems and being a help to our people was very interesting. We wanted to seize the opportunity that Microsoft Corporation gave to us. We chose the Software Design competition because it’s close to our field of study. We are happy to employ it to serve communities.

TEAM HISTORY
We are all at the same college. This allows us to meet and have a daily chat about the project. At the beginning, we had multiple ideas that each one of us wanted to achieve. Soon we were able to find a common interest among us. We wanted to make a project that could really help in solving a problem that our city and many other cities around the world are suffering from. We decided to make something special and useful at the same time because each one of us feels responsible to her/his home town. We all should try to make the place we live in, a better place.

TEAM EXPERIENCE
• Training Courses: Java programming, ASP.NET, Object-Oriented Programming
• Networking, Advance computer and computer accessories maintenance training
• Programming Skills: C/C++, Java, PHIR Delphi, ASP
• Business Fundamentals and Building Team Works training

HIGHLIGHTS
This competition had our attention since day one because, simply, it deals with daily problems in our lives. Also it gives us the opportunities to show the world our abilities to innovate ideas that can solve a significant problem for many people. This competition challenges students like us to show their best work and to use their abilities to make something that can help them and the people around them. The best thing is that Microsoft opens the door for students to express their innovative ideas in this competition.

GENESIS
Our project brings more than one UN Millennium Development Goal together. Our system can be very supportive to accurately predict weather because weather prediction is such a difficult task. Our system is cost effective for low budget countries. It can be used to predict weather accurately with a low cost. Finally, our system can be extended for long term weather prediction (environmental disasters) like hurricanes and storms. We can help save people’s lives and save money.

CHALLENGES
Our greatest challenge was obtaining the data of the weather that is used to train the neural network and do the experiment.

FUTURE PLANS
After the Finals in Egypt, we are planning to extend our project to be a general forecaster that includes many forecasting systems in the one system for long and short term forecasting. Furthermore, we will continue to enhance and maintain the system. Also we plan to launch a new business.
TITLE OF PROJECT: Caduceus

PROJECT OVERVIEW
Caduceus is a Health Information System Integration Platform (HISIP) that provides data storage, transport and analysis for a nationwide electronic health record system (EHRS). By providing researchers and policy-makers with tailored information, Caduceus enables sound decisions: helping to combat infectious diseases, improving child and maternal health, and advancing national healthcare. Furthermore, by building a comprehensive health profile of the nation, Caduceus opens up new possibilities for a global health partnership.

TECHNOLOGY/SOFTWARE USED
- Microsoft .NET Framework 3.5 with Microsoft Parallel Extensions
- Microsoft SQL Server 2008
- Windows CardSpace
- OpenEHR
- Health Layer 7
- Windows Communication Foundation
- Windows Presentation Foundation
- Microsoft Identity Lifecycle Manager 2
- ASP.NET
- Silverlight 2.0

INSPIRATION
The Imagine Cup is an excellent opportunity for students like us to develop applications and systems that can tackle real-world problems. Often, the scope of student software is limited to the academic setting, so this competition provides an exciting venue for software design and development. Also, our team felt that the Software Design category was broader in scope and more interdisciplinary, which we found more appealing.

TEAM HISTORY
After one of us heard about the Imagine Cup from an orientation by Microsoft Student Partners, we formed as a team of close friends who share a common passion for technology. We also found a mentor who not only has the technical expertise, but more importantly, the patience and logistic skills to guide us.

TEAM EXPERIENCE
Individually, the team members have their own backgrounds in the different fields of design, programming, and IT. Some team members have worked together on previous projects like mobile applications and games. Some have gone to compete in various competitions, including the IC Software Design competitions of past years.

HIGHLIGHTS
Working with talented partners who share the same passion is always a great pleasure. Seeing a vision come to life through the collaborative efforts of a dedicated team is very satisfying, and being able to share that vision with other people more so.

GENESIS
To avoid making a solution in search of a problem, our team sought to approach a real and concrete issue. The head of our university’s Health Sciences Department, which is affiliated with a major hospital, met with us to discuss the needs and problems of the Philippine healthcare system. Three of the eight MDGs are health-related, so we thought about addressing them with an overarching solution, which is Caduceus.

CHALLENGES
As students, we had to take care of many other things. Foremost among these is our academic work. Some of us also had required internships. The dates of the local rounds and finals also often coincided with important school and work requirements. Juggling these proved to be a challenge. Technical hurdles also presented themselves. As required by the scope of our problem, Caduceus needs to work with various technologies and protocols. It is always a challenge to get these different things to integrate well. The medical field is also both broad and deep; so much research on records and formats was required. Finally, technology is only one part of the solution. Building partnerships with people, agencies, and organizations may be difficult at times, but it is a necessary step in addressing large-scale issues and problems.

FUTURE PLANS
Launching a new business with Caduceus is certainly one possibility in the long run, but right now we intend to work with the relevant government agencies and medical organizations to implement Caduceus.

MORE INFORMATION
http://nohakostudios.net
TITLE OF PROJECT: ISIS

PROJECT OVERVIEW
ISIS is a modern and enhanced Cardiotocography (CTG) examination. This examination is necessary for women after 28 week of pregnancy. Heart beat of fetus and cramps of uterus are captured, and then can be analyzed by a doctor. In a classic CTG, a patient has to go to a hospital with specialist equipment and stay there for 40 minutes. In endanger pregnancies, woman should be at hospital every day. ISIS wants to change this. We want to improve the quality of this examination and make it more accessible. Now a patient can make this examination in her own house and automatically send results to doctor. There are many advantages to this type of system for example, an expert system to aid doctors' decisions, digital data storing (instead of sheet of paper), automatic reports, early warning system, and many others.

TECHNOLOGY/SOFTWARE USED
- Visual Studio 2008
- C++ Windows Communication Foundation
- .NET Framework 3.5 SP1
- Microsoft LINQ
- Microsoft Direct Media
- Adobe Premiere
- 3D Studio Max
- C# Visual Studio 2008
- Windows Presentation Foundation
- SQL Server 2008
- Analog Devices uC848 Assembler
- Microsoft Blend 2
- Adobe After Effects

INSPIRATION
We decided to start at Imagine Cup, because of free T-shirts - just kidding! We really believe that we can change the world; not with just one mile step, but together with everyone! Our passion will bring closer the idea of the world as a better place - Imagine Cup gives great opportunity to realize our goal. We chose Software Design because we like great challenges.

TEAM HISTORY
Long story short, in 2007, Szymon Majewski decided to give IC a shot as Demoscene Spirit. He was really delighted by the atmosphere and idea of Imagine Cup. Despite that he didn't advance to the Worldwide Finals, and he decided to try his chances the following year. In 2008, Demoscene Spirit acquired the great speaker, musician and coder - Łukasz Michniewicz. We also involved specialist of animal protection - Agata Czapracka and Wiktoria Szydlo. With their great knowledge and perfect sense of humor, they provided many great moments during and after finals at Paris. Thanks to graphics designer - Agata Majewska, the project looked very attractive. Rich in experience and with new member Marta Łuczak (medicinal sciences specialist), Demoscene Spirit has defend our title this year, so we will meet again in Cairo.

TEAM EXPERIENCE
Hmmm, I think we are just computer nerds, like everybody here. We love to spend night after night in front of our monitors! Seriously, programming and design are our passion; we can’t imagine what we would do without them. It’s a great feeling that you can create something connected with you, in your own way - programming is an art for us. We also feel the same about graphic design.

HIGHLIGHTS
It’s hard to tell what has been the best part of Imagine Cup. It can be told, that the best moment was the time between registering three years later till now. In other words, Imagine Cup has required a huge effort, so everything in your life becomes connected with it. We treat this competition as a journey which never ends. When one edition is over, we have new edition and we think about our new project and it last constantly. So in short, the best thing about Imagine Cup is that it can become a life style!

GENESIS
Our submission came from a story that we heard from our mentor - Tomasz Gdala. His friend was pregnant and was always very worried about her child, never knowing if everything was all right. One day she didn’t feel the movement of her child. She was so scared that her heart rate rose drastically resulting in the death of her child. If she had had access to ISIS - home CTG, she wouldn’t have to worried about condition of her child. We want to prevent this and many others situations. This problem is so vast – that’s why United Nations has included “Child Health” and “Maternal Health” to their Millennium Goals.

CHALLENGES
Not enough coffee! There were also other minor problems, like necessity to share time for Imagine Cup, work, and classes at university; Agata Majewska and Marta Łuczak needed to defend their university degrees simultaneously. We also had technical challenges. WCF and LINQ were new to us. Our graphics designer had to learn WPF from scratch. The good thing in Imagine Cup is that we can learn very useful technologies. For example, last year we made everything by ourselves which was very time-consuming and didn’t bring anything innovative.

FUTURE PLANS
After Finals in Cairo we want to spread our project over Poland, because we really believe, that ISIS will help people. We’ve already successfully started negotiations with investors and they are very interested in this project. Regardless of future of ISIS, after finals, we will start a brand new project for Imagine Cup 2010. As I said before, we are addicted to IC - we can’t imagine that we will ever use the night for sleeping instead of programming!

MORE INFORMATION
People Powered Places (P3)

Team Members:
Gonçalo Castro
Nuno Dias
Ricardo Wolffensperger

Mentor:
Celson Lima

TITLE OF PROJECT: Personal EneRgy MANagement System (PER-MAN)

PROJECT OVERVIEW
We live in challenging times. There is stark realization for individual citizens that resources of all kinds are finite, valuable, and not to be wasted. Considerable global attention is now focused on renewable energy resources. We propose an innovative approach were people contribute to reduced energy dependency by creating their own alternative sources of renewable and clean energy. People can, on one hand, generate some of the energy required for their own consumer needs and, on the other hand, generate extra energy to be traded or shared with other people. Considering that powerful wearable devices supporting micro-generation of electricity will be available very soon, this generation process can be aided by the Personal EneRgy MANagement (PER-MAN) system, a software tool that tracks personal electricity generation. PER-MAN also includes a Web-dimension where the electricity generation history of PER-MAN users can be displayed as a group (a PER-MAN network). People can also use it to send “SOS Energy.” For example, a homeless shelter can receive the energy generated by athletes working out in a gym.

TECHNOLOGY/SOFTWARE USED
- Visual Studio 2008 SP1 (.NET Compact Framework 3.5 & .NET Framework 3.5 SP1)
- C# as the programming language (from Visual Studio)
- SQL Server Express Edition + SQL Server Compact; and
- Expression Blend 2. Finally
- Visual Paradigm for UML (VPP) was used to support the design phase, through the creation of UML and Entity Relationship diagrams.
- PER-MAN graphical interface: entirely developed using the Windows Presentation Foundation (WPF).

INSPIRATION
We need power to literally ‘move’ the world. Energy sources currently available are not enough. We need alternative sources of energy (ideally renewable and clean). People are energy. People can power places they live/work in, through a micro-generation process. Our software system can provide support for this micro-generation process and can offer, through a web window, scalable data (house, building, neighborhood, etc.), as well as convenient access to statistics and energy repositories.

TEAM HISTORY
Students challenged our mentor to participate in the competition. The first idea from the group was to devise a process to produce energy from the natural movements of daily activity. We searched devices and processes and came up with the one we’ve been using to demonstrate PER-MAN functionalities, which were conceived to be simple and easy to configure and use. The micro-generation process has to be attractive enough from various perspectives, such as environmental, business, and social, to motivate people to use it.

TEAM EXPERIENCE
Nuno, Gonçalo, and Ricardo are senior students in the Integrated Master of Electrical Engineering and Computers department, Faculty of Science and Technology, New University of Lisbon (FCT/UNL). Prof. Celson Lima got his doctoral degree in 2001 from the same university and worked as project coordinator and researcher at CSTB, France. He re-joined FCT/UNL in December 2007 as Assistant Professor.

HIGHLIGHTS
Winning first place in the national competition and seeing images of our project and our names, in the movie produced by Microsoft Portugal.

GENESIS
Goal: Environmental Sustainability. We need to contribute to help preserving our world. It is the only one we have. The energy crisis is a huge problem that must be resolved as soon as we can in order to guarantee a renewable and clean future for next generations.

CHALLENGES
1st: Convincing people to believe that THEY are the source of renewable and clean energy available on earth.

2nd: Transforming our idea into something useful to the whole planet. In other words, devise good business models that can offer a viable option to “productize” the idea.

FUTURE PLANS
Develop a larger project bringing knowledge from complementary fields, such as mechanical engineering and science of materials. New and promising possibilities will be explored. Develop and produce smaller and truly “wearable” devices.
TITLE OF PROJECT: UpCity

PROJECT OVERVIEW
Our project, UpCity, is a collaborative platform that proposes a partnership for the development of communities (e.g., cities), by engaging citizens and authorities to collaborate in solving the issues they are facing. UpCity raises awareness when an issue is identified, allows the entire community to comment and assess relevancy, and then improves the flow of information between interested parties until a solution is chosen, applied, and finally reassessed through feedback, so that on a grander scale effective solutions become easier to replicate. Information is presented based on geographic context, on a real-time global map. Based on the interaction within one community (e.g., positive/negative feedback), a composite index is computed through CityRank to help promote a constructive competition between communities.

TECHNOLOGY/SOFTWARE USED
• .NET Framework 3.5
• Visual Studio Team System 2008
• Windows Mobile SDK
• .NET Compact Framework
• Microsoft Silverlight
• Microsoft DeepZoom
• Windows Communication Foundation
• SQL Server 2008
• Team Foundation Server 2008
• Live Services (Virtual Earth, LiveID)
• Map Services (OpenStreetMaps)
• Internet Information Services

INSPIRATION
Having participated in the now discontinued Project Hoshimi competition, we decided to shift our attention to Software Design based on our previous experience with Microsoft technologies.

TEAM HISTORY
We have been faculty colleagues and have previously worked together on a number of projects. Imagine Cup gave us the chance to share our vision with others and to consolidate our friendship.

TEAM EXPERIENCE
We have strong skills in programming and software engineering, gained during faculty and our first master's year. All of us have worked on small-to-medium projects involving Microsoft technologies.

HIGHLIGHTS
The fun and the challenge of working together on a complex software project and the excitement of seeing our ideas come to life.

GENESIS
With this year's theme in mind, as well as the eight Millennium Development Goals, our team has sought those key ingredients that would make a project successful in aiding with the solving of the problems confronting the world. Our solution involves people, both those facing the problems, as well as those who can come up with actual solutions, to communicate and cooperate for the good of all. We focused on the goals of developing a sustainable partnership for development and of improving access to education for women and children.

CHALLENGES
We've had some trouble linking established technologies from the .NET platform to still maturing technologies like Silverlight.

FUTURE PLANS
We've begun discussions with our local City Council to implement our solution. We also hope to enter the BizSpark program.

MORE INFORMATION
http://upcity.wordpress.com/
http://twitter.com/upcity
Vital Lab
Team Members:
Maxim Bovykin
Denis Gnatyuk
Alexey Klishin
Sergey Fedorov
Mentor:
Sergey Sidorov

TITLE OF PROJECT: ViVa: Epidemic Protection System

PROJECT OVERVIEW
We are all facing the problem of faster and faster epidemic spreading despite all the efforts specialists take. Our system offers a fresh view at the problem of infectious diseases. The synergetic combination of high technology and an innovative scientific approach makes it possible to obtain better than ever before results. Our breakthrough system makes data analysis, interpretation and presentation accessible to everyone. The solution that we offer is an epidemic protection system called ViVa. It consists of 3 components: ViVa Medicine, ViVa Epidemiology and ViVa Alert. Each of the components is aimed at solving the specific range of problems. The first of the components, ViVa Medicine, solves the problem of disease detection at early stages and helps to reduce recovery time, simplifies treatment process and minimizes the complication probability. The second component, ViVa Epidemiology, is designed to detect the pesthole quickly, which in turn makes it possible to take measures for the pesthole neutralization and scale down an epidemic in a timely manner. ViVa Epidemiology can also be used for forecasting and modeling the epidemiological situation. The last but not the least component is ViVa Alert, the part of our system that can be used by everybody. ViVa Alert notifies people about the current epidemiological situation in the chosen region. Our system ViVa will help to consolidate the joint effort in the struggle against infectious diseases and, as a result, to save people’s lives!

TECHNOLOGY/SOFTWARE USED
- Visual Studio 2008 Professional
- Silverlight 2.0
- .NET Framework 3.5 SP1
- Parallel Extensions to the .NET Framework 3.5
- ASP.NET 3.5
- Windows Live SDK
- SQL Server 2008 SP1
- Windows Mobile SDK

INSPIRATION
The members of our team are full of strength and energy. Sometimes we get captivated by some bright ideas that we are eager to realize and we work round the clock to do that. This is exactly what happened this autumn when we started working at our new project. It turned out to be fitted with the theme of the Imagine Cup this year. Imagine Cup offers a great chance to bring our ideas to life so we didn’t have any doubts about participating. Our major at University is Software Design so we chose the section which we are experts at.

TEAM HISTORY
All members of our team first met at school where we took part in programming competitions and shared common interests, but didn’t have any serious projects. Once we entered the same University and became interns at the University IT Laboratory, we began thinking about the ideas and projects we could work on together.

TEAM EXPERIENCE
While mastering the newest technologies we faced a lot of challenges. We had a great experience of working in a team, solving difficult problems together, and finding compromises in disputable situations. Before we started working as a team we had taken part in different IT Laboratory projects that dealt with developing software applications. Then last year, as a team already, we participated in the Russian semi-final of the Imagine Cup and got the second prize. This year we worked harder and got lucky.

HIGHLIGHTS
One of our main achievements was learning how to build a complete solution and how to implement it. Working with experts in epidemiology and medicine gave us the understanding of the current situation in medicine and epidemiology. We learned a lot about their daily needs and problems. We are getting the feeling that we can really do something important that can make this world a better place.

GENESIS
We feel that infectious diseases worry almost everyone. The messages about atypical pneumonia, malaria, recently swine flu and many other infections have been terrifying us year after year. We thought about how we could use our abilities and knowledge to solve this problem and discovered that IT could do a lot! Also, one of us comes from a doctor’s family and helped us to get deep insight into the problem.

CHALLENGES
We’ve been aiming at using the latest technologies that we didn’t always have a chance to study at the university. We had to put a lot of effort into studying them by ourselves but we managed it in the end. Another challenge for us was using both high-level and low-level programming.

FUTURE PLANS
We are actively working at our business plan development trying to take into account various aspects of our project. We already have the agreement with the local Center of Disease Control to deploy our system in Nizhny Novgorod region. We hope to continue working at implementing our system after the Imagine Cup taking the benefits that the victory can bring us.

MORE INFORMATION
http://nnviva.spaces.live.com
Binbou Fighters

Team Members:
Eyad Abdultaier Al Sibai
Osama Zaid Al-Ees
Abdullah Farouk Konash

Mentor:
Mohammad R. Alshayeb

**TITLE OF PROJECT:** NoBinbou

**PROJECT OVERVIEW**
NoBinbou is a system that solves poverty related problems by helping charity organizations and donors to overcome their problems. It helps to enhance their work by providing management to available resources and donations. These include: food, clothes, medicines, and money. Using tags on a map, the system will show the location of poor people and amount of the available resources that they have. Moreover, it will give alarms for expected shortages and detailed analysis of resources data associated with smart decisions. All these data will be shown on an easy-to-use interface that gives clear and detailed idea about poor people and resources. On the map, organizations and individuals will be able to find and tag poor people easily so donations will be delivered to them directly. The system will also help in identifying poor people accurately and fair distribution of aids to each one will be accomplished.

NoBinbou has many innovative features. For example, charity organizations can show information about a donation, know the exact location of the donor and indicate that they want to collect it so no other organization will interfere. After collecting the donation, they confirm it to be added to their database and then it can be delivered to people who will be identified using barcode by mobile. During this process, the privacy of the donor, the charity organization and the poor people is protected and subjected to the user’s preferences. On the other hand, donors will be able to donate cash online using their credit cards for example. This donation can be directed to specific poor family or a local charity organization and for a specific need like food supplies, health or education problems.

**TECHNOLOGY/SOFTWARE USED**
- Microsoft Virtual Earth
- ASP.NET Framework 3.5 SP1
- Microsoft Expression Blend 2.5 SP1
- .NET Compact Framework 3.5
- Silverlight Map Control CTP Mar. 2009
- ASP.NET 3.5
- Microsoft Visual Studio 2008
- Windows Mobile SDK 6
- QR code tag (2D barcode)

**INSPIRATION**
The Challenges this competition provides was the reason. Many skills can be gained through working in such competitions such as team work, communication skills and other things. Software Design seemed to be the most challenging of all and more over, software is part of our lives.

**TEAM HISTORY**
Forming our team was strange; first two members were formed while the Imagine Cup 2008 finals in France were held. They never really knew each other that much, just some simple chit-chat. After that the third member joined, we thought this is enough and we can do it without fourth one.

**TEAM EXPERIENCE**
One of our members participated in the Imagine Cup 2008 where they won locally and competed in the worldwide finals in France. His experience was useful for us and for the development of our project.

**HIGHLIGHTS**
The thrills associated with learning new stuff, making use of them and then competing against others to win.

**GENESIS**
One of the Millennium Development Goal is to fight poverty. In our solution, we were inspired by the fact that poverty is a direct cause of most of the other toughest problems that faces the world. As a result, we designed NoBinbou which we hope that it will help in solving the poverty problem and therefore other problems.

**CHALLENGES**
We had different technical backgrounds. This made a barrier between us and caused some misunderstanding in some situations. However, we crossed these barriers powered with our team spirit and with the help of our mentor.

**FUTURE PLANS**
After the Finals, we are planning to launch NoBinbou to be used by donors and charity organizations. In fact, after our local finals, many charity organizations contacted us to know more about the project and we will cooperate with them more after the Finals.

**MORE INFORMATION**
www.nobinbou.org
TITLE OF PROJECT:  WICHI ASSISTANT  
(Woman and Child Assistant)

PROJECT OVERVIEW
The Millennium Development Goals were agreed upon by 189 nations around the world more than eight years ago. Among these goals, three concern health: reduce child mortality, improve maternal health, combat HIV/AIDS, malaria and other diseases. Already halfway to 2015, a lot more needs to be done to meet the Millennium Development Goals. For example 182,310 children lose their life each year in Angola and at the current pace these goals will not be achieved until 2165 according to World Health Organization. Our solution, Wichi Assistant, is a platform of monitoring of the pregnant woman and her child. Two aspects were developed, a portal web and a value-added service for mobile phones. Wichi Assistant will allow the doctor, on one hand, to have a private account where he will be able to consult the files of his patients, prescribe prescriptions, follow pregnancies and children, establish a calendar of consultation, and to request the opinion of other doctors via Internet. All this while respecting patient confidentiality and continuity in case of displacement or of mutilation. For the pregnant woman, attending Wichi will help to send symptoms by e-message, to consult their file and view the results of clinical examinations, to follow the evolution of her pregnancy, to benefit from advice and to have the list of medications prescribed according to the patient’s medical profile. Wichi Assistant will also allow to the general public to search for advice and information relating to malaria, tuberculosis, HIV, diabetes, and pregnancy. For NGOs involved in health, this program will allow them to view statistics and to send by SMS information relating to ongoing health campaigns, and to access all available information in the field of health.

TECHNOLOGY/SOFTWARE USED
• OS: Windows Vista
• IDE: Visual Studio 2008
• SQL Server 2008
• Visual GSM
• SMS Server Toolkit
• Silverlight
• Microsoft Expression

INSPIRATION
We are a team of four students fascinated by new technologies. We have heard about Imagine Cup for the first time from a friend of us and our former teammate Pape Ousmane, who is an MSP (Microsoft Student Partner). We found this exciting opportunity and we were encouraged by our teachers to participate in this contest. Programming is an area that particularly interests us because we are trained in that. Participating in Imagine Cup appealed to Team Ginov as a challenging Software design assignment because it is the same as the process that will drive our career: you start from the first idea to a fully working product ready for commercialization.

TEAM HISTORY
We are all friends from the same school and share the same desire for challenge so our team has been formed naturally.

TEAM EXPERIENCE
Imagine Cup is the first competition that the Ginov team has participated in, although everyone has a little experience in their studies.

HIGHLIGHTS
Our best experience in this competition was the regional finals we attended in Abidjan. That country was a great discovery for us, especially the Agitel students, who have been great to us.

GENESIS
Last year, Idrissa did his internship at SOS Medecin Senegal, and the experience he had there led us to reflect on the connection between medicine and computing to help patients. Seeing the importance of the objectives of the Millennium Development Goals related to health, and with the staggering numbers of children and mothers who lose their lives each year worldwide, the spark was born naturally. From there came the idea of setting up Wichi Assistant.

CHALLENGES
The first challenge was to tackle an area completely unknown to us: medicine. It was exciting to get out in the field and conduct surveys with Gynecologists and nurses. The second is that we registered a little late for Imagine Cup so we were in a rush most of the time. Finally, we had to learn some Microsoft tools quickly that we had discovered. It was very exciting and we thank all those who collaborated with us.

FUTURE PLANS
With Galsen Inov, we had created a concept called G-inov. The intention of this is to be the new young generation of innovators. This is why after that we will plan to use it for making a new kind of movement in order to solve real development matters in our country using technology. We also invite all persons in the same state of mind to join us making this world better.

MORE INFORMATION
http://g-inov.spaces.live.com/
**BrainWave Team**

Team Members:
- Veljko Dimovic
- Jelena Crgočlavac
- Vukasin Cirovic
- Arso Vukicevic

Mentor:
- Vladimir Milivojevic

**TITLE OF PROJECT:** People 2 People Economy

**PROJECT OVERVIEW**
Project People 2 People Economy provides students as well as employees with equal opportunities for gaining desirable education. The system is based on the exchange of various services between users and institutions (both universities and companies) in which both sides have multiple interests reflecting in the cooperation without money. Students from countries all around the world are able to enter the desirable universities, regardless of their financial situation or the place they are from. People 2 People Economy can be used by companies which search for additional development of their own employees as well as companies that offer such kind of education.

**TECHNOLOGY/SOFTWARE USED**
- Windows Azure
- Visual Studio 2008
- SQL Server 2008
- Virtual Earth
- Live Framework

**INSPIRATION**
We have all been actively programming with Microsoft technologies, and we see the Imagine Cup as a great opportunity to test our skills on a large-scale problem. We also think that creating a complex solution through team work is valuable for our future professional development.

**TEAM HISTORY**
Veljko and Vukasin have been friends for many years but also colleagues at the Faculty of Mechanical Engineering. Having come up with an interesting idea, they tried to find someone who will help them develop it. In the Centre for Career Development and Student Counseling they met Jelena volunteering. University professors suggested Arso as one of the most prominent students at the third year at the Faculty of Mechanical Engineering and that’s how the whole adventure started.

**TEAM EXPERIENCE**
The greatest experience we gained was while working on ASP.NET applications, data-mining and CRM tools which are widely used in education for system improving as well as in hydro-information systems.

**HIGHLIGHTS**
The best part of Imagine Cup competition was seeing our ideas turning into reality through team effort. We also gained valuable knowledge on new technologies and learned from each other while developing our solution.

**GENESIS**
Since we grew up in a politically and financially volatile environment, we are familiar with this issue: quality education is out of reach for most, due to effects of global financial crisis. With money being the main cause of this problem, we decided to look for possibilities of earning an education without it. Being inspired by Millennium Development Goal to provide equal education for everyone, we created the P2PEconomy system that could help solving this problem.

**CHALLENGES**
On the personal level, we had to find out how to work in a team and, at the same time, be equal individuals creating the unique idea. The main technological challenge was to assemble emerging technologies into a working solution, since learning resources and community support for some technologies are relatively scarce.

**FUTURE PLANS**
Based on our project we plan to launch a new business in social economy, which will be based on SQL Server 2008, Windows Azure and new .NET technologies.

**MORE INFORMATION**
http://p2peconomy.cloudapp.net
Y3K
Team Members:
Shawky Hanana
Neveen Mouthasseb
Ahmad Bostami
Osama Alkoky
Mentor:
Alaa Khanjar

TITLE OF PROJECT: Maternal Health Monitoring System

PROJECT OVERVIEW
The idea is to have a tracking device connected to a pregnant woman. This device senses the baby’s heart pulses and activities, and sends all this information to a device (PDA, Laptop or wrist device) which are connected together and which uses Microsoft technology to communicate. The software will gather medical information and assemble a medical history for the mother through her pregnancy period. The software will have the intelligence to alert the mother if anything has gone wrong and the baby is in danger. It could also call an ambulance directly. Also, a doctor online will be able to scan and monitor the mother from his office and contact her regarding any activity.

TECHNOLOGY/SOFTWARE USED
- .NET Framework 3.5
- LINQ (Language Integrated Query)
- WPF
- Silverlight 2
- Visual Studio Team System
- Mobile Device
- Microsoft SQL Server 2005

INSPIRATION
Thousands of fetus and maternal deaths occur around the world, and during the last 15 years no essential efforts has been made to avoid that. Fetus and mother mortalities have many causes like disease, improper care and tracking, and others. Through our research and interviews it was obvious that a good number of these deaths can be avoided by tracking pregnant mothers and supervising them through their pregnancy period. Software is a powerful tool to solve these problems.

TEAM EXPERIENCE
We participated in various programming contests.

HIGHLIGHTS
Coming up with the solution and trying to tackle each problem

GENESIS
We got inspired by the Millennium Development Goals that are designed to improve maternal health. We want to give babies another chance to live.

CHALLENGES
The main two problems were 1) the noise - if you can believe it, the sound of internal organs creates noise and 2) connecting our hardware with the computer software.

FUTURE PLANS
From a professional point-of-view, we loved this project and we truly believe the idea is functional. Hopefully we can market this idea for the benefit of the world.

TEAM HISTORY
We study at the same university.
I'm A PC

Team Members:
Cheong Kah Meng
Shen Yizhe
Joel Yang Zhenbin
Tan Chun Siong

TITLE OF PROJECT: Vermis

PROJECT OVERVIEW
Over the past 40 years, approximately 30% of the world’s cropland has become unproductive because of soil erosion and degradation. Every year, almost 2 million hectares of rain-fed and irrigated agricultural lands are lost to production due to severe land degradation. The use of chemicals such as fertilizers, pesticides and herbicides has been identified as the key factor of causing serious soil degradation in addition to water pollution. The effect of land degradation decreases the wealth and economical development of nations. As land becomes less productive, food security is compromised and competition for resources increases, hence famine and potential conflict are likely to surface. Turning crop waste into organic fertilizer is the key to salvaging this situation. The fruit of a corn crop only takes up 20% in mass of the whole plant while the stem, leaves and roots makes up the rest of the 80%. A special species of earthworms is able to turn plant parts or other waste into nutrient rich compost which improve plant growth, improve water holding quality of the soil and improve soil texture for aeration. In addition, this compost repairs the soil, balances the pH and stimulates growth of beneficial bacteria and fungi. As a result, crops grown on “vermicompost” germinate easier thanks to presence of plant growth hormones and suffer lesser from weed and pest infestation. Our system “Vermis” enables a low cost, self sustainable and closed loop model of vermicomposting in a large scale which was not previously possible. A specific range of pH, humidity and temperature is required for the worms to thrive. Vermis will monitor the surrounding elements with hardware and biological sensors to ensure the optimum condition for composting during grinding, precomposting of crop waste and harvesting of compost. Taking a step further, “Vermis” will forecast the productivity of organic fertilizers produced via vermicomposting and advice on necessary actions to take.

TECHNOLOGY/SOFTWARE USED
- ASP.NET
- Phidgets
- .NET Framework
- JQuery
- Windows Mobile
- Javascript
- Virtual Earth
- .NET Compact Framework
- SQL Server 2008
- Earthworms (Yes, real earthworms!)

INSPIRATION
We heard about the Microsoft Imagine Cup back in 2007 via the Microsoft Student Partners Program. After watching some of the day-to-day coverage of the world finals in Korea and France on television, our excitement for this competition grew. The Software Design was the most exciting category as there was no telling where, what or how our idea would end up. We felt that this was the category which promotes out-of-the-box thinking when it comes to ideas.

TEAM HISTORY
Yizhe, Mickey and Chun Siong met each other thru the Microsoft Student Partners Program in Singapore in October 2006. Yizhe introduced Joel to Chun Siong and Kah Meng in November 2008 during a vacation trip to the United States.

TEAM EXPERIENCE
We have experience with various technologies such as .NET, PHP and Python in various school projects, internships and freelance work. We regularly compete in local programming competitions such as CodeExtreme Apps and Popfly Design Competition.

HIGHLIGHTS
The steamboat dinner we had in Cameron Highlands, discussing on how to solve the problems that the farmers faced was most memorable.

GENESIS
During a field trip to Cameron Highlands in Malaysia, we witnessed the challenges that farmers faced and the effects of soil degradation. The idea of turning crop waste into fertilizers came about during a discussion at dinner later that night. Realizing some foods such as corn makes up only a small part of the plant, we researched how to turn crop waste into something that can contribute back to the land.

CHALLENGES
Time. How we wished that we had more than 24 hours in a day. We were so cramped up for time that hours before the local finals, we were still frantically coding trying to improve our software solution and polishing up our presentation.

FUTURE PLANS
In Singapore, there are grants and funds provided by government agencies that help prototype a project and start up a company. After the competition, we plan to apply funds to hire a farming expert to further finalize the prototype into a working product. With the working product, we will conduct a trial test on a commercial farm. Once it is commercial ready, we will raise funds from Venture Capitalists to turn it into a business venture.

MORE INFORMATION
www.teamimimapc.wordpress.com
TITLE OF PROJECT: Aid AutoMagically (A2M)

PROJECT OVERVIEW
Our project aims at helping the others, as designated by Millennium Goals, but not directly. While putting a technology at work in the least developed parts of the world should help locally, a fact surfaced, after consulting with UNICEF (United Nations Children’s Fund) and individuals who have experienced from the most problematic areas of the world, that this process doesn’t always work due to various problems - energy and operating skills being an example. Also, only great systematic changes could make prolonged and sustainable improvement. And people are behind everything, so in order to make such a change, the thinking of people who can help has to be changed. The A2M (Aid AutoMagically) system does so by motivating people to learn about others problems, educating them about these problems and also providing them with a means to help, at least financially for now. It is comprised of two main parts that complement each other to offer a complete and sustainable solution. The first part, called WOWI (World of Web Information), educates the people who have the means to help the other, less fortunate ones, so that they recognize the most serious problems and are aware of organizations and groups that struggle to solve them. In par with WOWI works the second part, called Rounder. Rounder allows people to donate money and hereby help any humanitarian organization while they are paying by credit or debit card for their regular shopping. The means to help the other, less fortunate ones, so that they recognize the most serious problems and are aware of organizations and groups that struggle to solve them. In par with WOWI works the second part, called Rounder. Rounder allows people to donate money and hereby help any humanitarian organization while they are paying by credit or debit card for their regular shopping. By pressing one button on a point of sale terminal, the sum is then transferred to the organization of users choice.

TEAM EXPERIENCE
Our idea generating phase took two months during the autumn of 2008. We talked to organizations like Red Cross, United Nations and UNICEF, Greenspeace, on both formal and informal levels. We sat down with the very people who are trying to solve the toughest problems of the world for their entire life, ranging from the director of Slovak UNICEF to volunteers working directly with children in Africa or here in Europe. During these months, we learned that the only way our project can be usable in real life and not only as some showcase high-tech toy, is to focus on the people in developed countries that have the combined resources and potential to resolve all the most serious problems in the world. This way we believe we tackle almost all Millennium Development Goals. We developed countries that have the combined resources and potential to resolve all the most serious problems in the world. This way we believe we tackle almost all Millennium Development Goals.

HIGHLIGHTS
The biggest sense of fulfillment is caused by the representatives of various humanitarian organizations that collaborated on the project and supported us with data and insider information. One of the most remarkable moments happened during our national round of the Imagine Cup, right after our presentation of the project. There were the representatives of over 40 non-profit organizations and most of them rushed to us handing over their business cards and sympathies.

FUTURE PLANS
We already have some offers for cooperation on the realization of this project and we would like to exploit these to make our project not only a one-time competition entry, but a real system helping people. Also some humanitarian organizations including UNICEF expressed support to a future development and deployment of our project.

TECHNOLOGY/SOFTWARE USED
- LINQ
- Open Computer Vision Libraries
- Microsoft Silverlight
- AXA
- Microsoft Expression Toolkit
- Matlab
- Windows Presentation Foundation
- XAML Browser Application
- ASP.NET
- Visual Studio 2008 Team Foundation
- Microsoft Visio
- Adobe Photoshop
VideoBlade

Team Members:
Nejc Ilc
Domen Grabec
Jernej Goricki
Matjaz Horvat

Mentor:
Dr. Robert Rozman

**TITLE OF PROJECT:** VideoBlade

**PROJECT OVERVIEW**

VideoBlade is a system that automatically extracts important information from any video content published on the internet. Using modern technologies like speech recognition, advanced search algorithms and web crawlers, we can reveal information in a video file and consequently make it search engine-friendly. The primary goal is to educate people by simplifying the process of finding information in videos.

**TECHNOLOGY/SOFTWARE USED**

- Visual Studio 2008
- Expression Blend
- ASP.NET
- Silverlight
- SQL Server 2008
- Javascript
- JAVA

**INSPIRATION**

We all share a common goal of making the world a better place and a great passion for technology. We get very excited when we achieve something when combining those two. Software design is the most important category of the Imagine Cup. Keen competition in this category and our great passion for technology were the biggest motivators for us to enter this event.

**TEAM HISTORY**

We all come from the Faculty of computer and information science in Ljubljana. We are also very good friends.

**TEAM EXPERIENCE**

Some members of our team were also members of last year’s Software Design winning team that represented our country in Paris.

**HIGHLIGHTS**

The best part was the adrenaline rush just before our presentation at the regional competition and of course the moment our team was announced as winners.

**GENESIS**

After reading and analyzing all the MDGs especially according to our country perspective, we decided our project was inspired by universal primary education goal. We all know that the internet is a great source of information but sometimes that information is hidden and it takes considerable time and luck to find it.

**CHALLENGES**

The biggest problem was the lack of time. We are all students with school obligations and involved in many after-school activities. We managed to organize our free time and invest more and more energy into the Imagine Cup competition and in the end it was worth it.

**FUTURE PLANS**

We are very eager to launch a business out of this project and we hope that our free browser plug-in will attract a big number of users so that we can start selling our payable services.
TITLE OF PROJECT: iSign

PROJECT OVERVIEW
A digital phrase-book that translates simple phrases from South African Sign Language to English, and English back to South African Sign Language.

TECHNOLOGY/SOFTWARE USED
- Visual Basic .NET
- Visual C++
- Java 2 Mobile Edition
- IrfanView
- Blender
- OpenCV
- Hidden Markov Models, Skin Recognition, Face Detection, Motion Detection.

INSPIRATION
God.

TEAM HISTORY
We met in our first year of varsity. We became good friends all through our undergraduate studies. We both successfully completed our honors degree cum laude. We are currently completing our masters' degree together.

TEAM EXPERIENCE
We have had an amazing experience to date. We have learned and grown in a variety of aspects and have taken our initial idea to new heights.

HIGHLIGHTS
The Presentations to the judges, the Awards night and the announcement of the winner of the Software Design category (we won!) were all highlights to date.

GENESIS
The idea for iSign was an offspring of our supervisors Mr. James Connan research group called SASL, which stands for South African Sign Language. The group aims to develop a full translation system for the deaf community. iSign was developed as the first known prototype in South Africa. There are over 1 million deaf people in South Africa and the majority are illiterate, a need exists to integrate them into society at large. iSign aspires to create a communication channel between the deaf and hearing communities as well as provide long distance communication between deaf users. This not only helps South Africans but the world at large. Sign language is a language of its own and it differs from country to country. iSign is capable of translating between different sign languages.

CHALLENGES
- Develop a gesture recognition system that requires no expensive hardware such as data gloves and motion detection devices.
- Develop a 3D humanoid avatar that would have sufficient detail and graphical appeal but still be able to run on a mobile device.
- Integrate different technologies/programming languages to work as one system.

FUTURE PLANS
We plan to provide this service on cell phones which will make it accessible to everyone who needs it.

MORE INFORMATION
http://www.coe.uwc.ac.za/index.php?option=com_content&task=view&id=19&Itemid=34
Team Members:
Pedro Valero Lara  
Gonzalo Rubio Torrente  
Luis Cañamares Ramos  
Juan Ignacio del Castillo Waters

Mentor:
Elena Navarro Martinez

TITLE OF PROJECT:  aPadYt

PROJECT OVERVIEW
Our proposal intends to address one challenge, “achieve universal primary education”. Some estimates place the proportion of children suffering from some form of learning disability at 10-20%. That means tens of thousands of children. It is a known fact that in most cases they go undiagnosed, and thus untreated. The reason for this is the lack of specialists in schools, since every treatment requires professional diagnosis, and then a tailored educational plan that may last months. In order to help these children, we created APADYT. This project is a set of applications that support the work of educational psychologists. It allows them to organize several therapies simultaneously, even providing therapy from home. This makes report writing easier and establishes a direct line of communication between the doctor and the parents. Thus, the doctor can help provide advice without arranging a physical meeting every time.

TECHNOLOGY/SOFTWARE USED
- SQL Server 2008
- Windows Communication Foundation (WCF)
- Windows Presentation Foundation
- XNA
- Visual Studio 2008
- Expression Studio
- Windows 7 Multi-touch SDK
- .NET Framework 3.5
- Windows Azure
- ADO.NET
- Windows Mobile 6.0

INSPIRATION
For us, the Imagine Cup Competition represents how new technologies can be used in a new point of view. We have no need to look for our own profit and want to improve the society that we live in, and Imagine Cup gives us the opportunity to bring new ideas and try to solve real problems. Also, we are IT students and thought that the Software Design competition is the closest to our profile.

TEAM HISTORY
We have been friends since the beginning of our university life. Though we have worked together on some other projects, this one was special because of its magnitude.

TEAM EXPERIENCE
We have worked together on some projects during our studies, but not as big as this one. This has been a great opportunity. We have all learned a lot along the way.

HIGHLIGHTS
The national finals were indeed an awesome experience. It has also been gratifying working together and seeing our ideas come together and become a reality.

GENESIS
When we saw that the Imagine Cup theme was the Millennium Development Goals, though all of them are very important, the goal: “achieve universal primary education,” stood out. We wanted to take it a step further because it can be the foundation to create solutions which then aid in achieving the rest of the goals. Centered in education, we wanted to find a part of the population that could have access to the new technologies. Inside that big group, we thought about children with special education needs (dyslexics, attention deficit disorder, etc). These children can be found in every corner of the world. In these cases, it’s well known that in primary education centers, the qualified personnel to treat these problems can be a limited and insufficient resource. We believe that technologies can help to alleviate these situations. Finally, we wanted to make a realistic project, which could be used in any school and didn’t depend on anything in terms of infrastructure.

CHALLENGES
The documentation process was the most challenging and it was essential to know the issues. For that we needed to speak to specialists in the educational psychology to look for advice. We had to read about educational difficulties and keep in touch with these specialists for checking our results and helping us improve our application.

FUTURE PLANS
We would like to build a small company and let our application be known and used around the world. We think that it could help many people improve their life quality. Our project is realistic and it can and should be used in every school.

MORE INFORMATION
http://apadyt.blogspot.com
Mahee

Team Members:
Jayasooriya Mudiyanelage Akila
Givantha Jayasooriya
Chanakya Chathura Jayasinghe
Waduge Lakkana Malaka Perera
Udalamatta Kankanamge Dunith
Dhanushka

Mentor:
Dr. Koliya Pulasinghe

TITLE OF PROJECT: MISEEFA (Minimum Sufficient Equal hEalthcare For All)

PROJECT OVERVIEW
MISEEFA (Minimum Sufficient Equal hEalthcare For All) is an approach to uniformly improve the healthcare around the globe. The system provides a general healthcare solution focusing on total healthcare in the areas that are under served. The system revolves around a unique, low cost, mobile hardware device called the “Medical Chair” and a rich set of applications that ensures a better user experience when consuming the services of the chair. The data gathered during a “channeling session” is handled intelligently to improve the health level of the community.

TECHNOLOGY/SOFTWARE USED
- Visual Studio Professional
- Microsoft Visual Studio 2008
- .NET 3.5
- WPF
- AJAX
- ASP.NET
- Windows MultiPoint 1.1
- Windows Speech API (SAPI 5.3)
- SQL Server 2005

INSPIRATION
We thought we had a good combination of members to compete on the world level and furthermore, we thought about the experience we would get that could help us to develop our career as developers.

TEAM HISTORY
We are in the same batch in the university.

TEAM EXPERIENCE
Akila Jayasooriya has already competed in the Imagine Cup 2007 and an all-island algorithmic robotic competition. The others have some work experience in different software firms as part-time workers.

HIGHLIGHTS
The announcement of the 1st runner up at the local finals. Once the 1st runner-up was announced, our friends screamed in joy and we were in air in no time as our friends lifted us. What a moment that was...

GENESIS
In previous Imagine Cup competitions the concentration was on education (2007) and environmental sustainability (2008). Therefore, we thought not to address those areas. Furthermore, we had a good solution for the general goal called “Health”. Therefore, we have decided to specialize the general solution towards maternal health since we have found out that in every minute a mother dies due to complications during pregnancy.

CHALLENGES
When it comes to technological challenges we have had minor challenges as all our members were sharp and technologically sound. We’ve had several personal challenges as we’ve had to postpone our final year end semester exams due to clashes of the local finals with the exams.

FUTURE PLANS
Our first step would be obtaining the patent for the product, if possible. Then we will add some additional software to enhance the system and will deploy the product in real world applications.
Th**e best part was when we received the award in Sweden. =)**

**GENESIS**
We have been developing our Multi-Touch technology for over two years and had already planned to make a Virtual Whiteboard as a Masters thesis. Our inspiration was to make a truly useful, collaborative and inspiring platform based on the Multi-Touch technology and the Natural User Interface paradigm.

**CHALLENGES**
At Chalmers we have been using Linux and recently we changed our software platform to the .NET platform. This was challenging in the beginning.

**FUTURE PLANS**
We have already started a company, TouchTech. This allows us to continue working on our Multi-Touch solutions. Many companies have already shown interest for the Virtual Whiteboard. In the future when Multi-Touch hardware becomes cheaper we want to provide the application for use in education.

**MORE INFORMATION**
http://www.touchtech.se/
http://www.fjeld.ch/
Tech-Volunteers

Team Members:
Ting-Yu Wang
Zih-Ci Lin
Wei-Yen Lin
Shin-Neng Wang
Mentor:
Prof. Phone Lin

TITLE OF PROJECT: TVC: Trusted Volunteer Community System

PROJECT OVERVIEW
The TVC system is a social community system with Matching and Feedback mechanisms on mobile networks. With the TVC system, the volunteer can provide real-time assistance and services to others needing help (we call these “HelpMes”) by referencing the information on the TVC Web site or by being notified by the mobile device. When the HelpMes need help, they send the request to the TVC system, and the TVC system responds to them by selecting the volunteer (who can provide trustworthily help to them immediately and efficiently).

The TVC system carries the concept of social community network in the Internet into the face-to-face real world. The TVC system is a complete and mutually trusted platform. With the TVC system it will no longer be a difficult task to help people. Society will gradually be filled with kind people. The wall of distrust will be broken by the TVC system. Everyone can easily become a “Tech-Volunteer.”

TECHNOLOGY/SOFTWARE USED
- .NET Framework 3.5
- Visual Studio Team System 2008
- Windows Mobile SDK v6
- Silverlight 2.0
- Expression Suite
- .NET Compact Framework 3.5
- XML Web Service
- Windows Live ID SDK
- Virtual Earth v6 API
- SMS Server Toolkit

INSPIRATION
Our enthusiasm to solve the world's toughest problems and the possibility of visiting Egypt inspired us to enter the Imagine Cup. It's really a great opportunity to learn the process of identifying a serious problem, proposing an innovative solution, implementing the solution, and demonstrating our creation to others. The Software Design competition integrates each of these steps very well. Therefore, we decided that Software Design was the best choice for us to realize our idea.

TEAM HISTORY
All team members are from the same lab at National Taiwan University. We are all interested in the topic and want to create an innovative solution to the toughest problems the world faces today. After using our knowledge and creativity, we hope to make contributions to society as a whole.

TEAM EXPERIENCE
Two members of our team attended the Software Design competition of Imagine Cup 2008, which will help us a lot. With that experience, we can develop our solution and improve it with more solid advice. We can also learn to precisely describe and promote our ideas.

HIGHLIGHTS
In the process of preparing for the competition, we learned how to cooperate with our teammates. It felt great to come up with ideas after brainstorming. At the local competition, we competed with teams from different schools, all with creative ideas and excellent presentations. We also exchanged our ideas with other competitors at that time. This gave us a lot of experience and broadened our point of view. Finally, we won't forget how excited and honored we were when we won the local competition in Taiwan.

GENESIS
The United Nations has identified some of the hardest challenges in the world today in its Millennium Development Goals. This year, the Imagine Cup uses these ambitious challenges as a guiding light to inspire change all over the world. Most of these challenges focus on how to help disadvantaged people. There are a lot of disadvantaged groups who need help in their ordinary lives, but their voices cannot be heard. In our society, a group of volunteers exists who help others without feedback. They are willing to contribute their effort to the society. They not only help the disadvantaged groups but also help you and me. However, people are sometimes restricted by many factors such as fear, so they cannot take action like volunteers do to demonstrate their compassion, kindness and benevolence to the world. Imagine if peoples' benevolence became real actions anywhere and anytime for people who need help. You and I are no longer strangers, but volunteers. We are living in a wonderful world. Based on this inspiration, in this project, we developed the Trusted Volunteer Community (TVC) system to tie you and me to a Big Volunteer Group to help people needing assistance anywhere and at any time.

CHALLENGES
While developing our system, the biggest problem that we encountered was the real demand by volunteers and the disadvantaged people. If we can understand what they need, the system can become meaningful, helpful, and practical for both volunteers and disadvantaged people. We visited many experts for their professional advice. We participated in volunteer service to understand in depth what the people who need help want. Through these efforts, we developed the TVC system.

FUTURE PLANS
After the worldwide finals, we will continue understanding the needs of the disadvantaged people in society and make our system more and more complete. Furthermore, we will consider launching a new business as the social enterprise. It's still a long road for us to go.

MORE INFORMATION
http://pcs.csie.ntu.edu.tw/
TITLE OF PROJECT: Meddy "be good buddy, be good health"

PROJECT OVERVIEW
Meddy enables those who are sick to receive treatments and advice from a professional doctor in a timely manner through multimedia streaming technologies of the PC. Meddy also provides a quick information lookup on a lot of common diseases and/or conditions by matching a user-provided list of symptoms against a medical database. Provided information includes diseases and conditions, symptoms, drugs and supplements, healthy living and first aid.

INSPIRATION
We are inspired by our desires to better ourselves and to put our classroom skills to real world tests. Imagine Cup is just the place where we can do just that.

TEAM HISTORY
We are friends studying at the school and with the same faculty.

TEAM EXPERIENCE
We create websites and applications as freelancers on our free time.

HIGHLIGHTS
The announcements that FINALLY our team had won our local Imagine Cup 2009 contest. This is our third attempt.

GENESIS
Even with the current state of technological advances, there are still a lot of people in this world that lack access to even the simplest medical treatments. So we tried to view the world from their point of view and came up with a solution so that when they needed a doctor, a doctor they should get. When they needed medicine, medicine they should get (and get to them as fast as possible, too). Our software tries to narrow the gap between those with the medical resources and those in need.

CHALLENGES
In an attempt to solve as many of the UN's Millennium Development Goals as we possibly could, we had to integrate solutions from different areas together into one cohesive package, which has proven to be both the toughest technical and personal challenge at the same time.

FUTURE PLANS
We hope Meddy will be a software that is useful in theory and also in real world design and implementation. Our team plan is to confer with organizations looking for collaborations and allow for different requirements for each of the different regions, so that our application can reach as many users as possible.

MORE INFORMATION
http://2nitedesign.com/
T.B.C.R.

Team Members:
Bassem Triki Mohamed
Chafik Bakkey Mohamed
Taher Jouida
Raouia Ben Charrada

Mentor:
Naoufel Kraiem

TITLE OF PROJECT:  Extended Power Economizer

PROJECT OVERVIEW
This project is about saving energy using the Extended Power Economizer, which allows the unused pixels in a screen to be deactivated.

TECHNOLOGY/SOFTWARE USED
• .NET Framework 2.0
• Visual Studio 2008
• C#
• .NET

INSPIRATION
We are members of Microsoft Club in ISI Tunisia and are fascinated about Microsoft technologies. We choose the Software Design competition because we are software design engineers

TEAM HISTORY
We first met in 2004 when we entered ISI Tunisia. We have studied together ever since and are all software design engineers.

TEAM EXPERIENCE
We had many different projects during our study in ISI Tunisia, but this is the first time we’ve participate in the Imagine Cup.

HIGHLIGHTS
Until now the best part was when we were chosen as Tunisia’s representative in the Imagine Cup Finals in Egypt.

GENESIS
Our solution realizes an important gain which can affect 27% of economized energy and also about one million dollars per year for a little part of little enterprises. That is what made our team come up with our submission.

CHALLENGES
We had to face all the ISI teams to pass to the Tunisia Finals and then all the other Tunisian teams from throughout the whole country. The technological challenges we faced dealt with screen manipulation with C#.NET.

FUTURE PLANS
We are planning to launch a new business after the Worldwide Finals in Cairo, especially since our product can ensure important economic gain for many types of enterprises.

MORE INFORMATION
Title of Project: CogoStuff

PROJECT OVERVIEW
CogoStuff is a system that consists of sub social groups which are based on cultural items or belongings. All those sub societies help people learn about other cultures while having the opportunity to showcase their own. It is a place where you can learn about something you had never heard of, and at the same time meet new people and share their culture and feelings.

TECHNOLOGY/SOFTWARE USED
- .NET Framework 3.5
- C#
- Microsoft Silverlight 3.0 Beta
- Microsoft Visual Studio 2008
- Microsoft Expression Blend 2-3
- Microsoft Expression Encoder
- Microsoft SQL Server 2008
- Deep Zoom
- Microsoft Virtual Earth
- CTP Mobile SDK
- Silverlight
- Toolkits
- DirectX Pixel Shader
- SDK
- LINQ
- Microsoft Live SDK

INSPIRATION
This project was an idea in our heads since we started the college and met each other. I guess we were looking for the spark that would start everything, then one day we heard about Imagine Cup and joined a conference about it. We exclaimed, "yes that’s it!" then it all started. Software Design seemed to be the most suitable category for our project so it wasn’t hard to decide.

TEAM HISTORY
None! That’s the best part of it! We hadn’t used any of the Microsoft’s technologies for developers before. We saw Visual Studio for the first time when we decided to start the project. So we learnt C#, Silverlight, Visual Studio, Expression Blend and SQL Server in this period and at the same time we tried to develop our project. We had considerable knowledge and creativity in algorithms and we put that to use that in our project. Our goal was to be innovative and to do something that was never done before.

TEAM EXPERIENCE
As we are from the same university, we have experience working on different projects, both software and hardware. We have developed projects like human face editor, air port simulation system, messenger which extracts emotions from sentences and generates emoticons, robot for plowing, etc.

HIGHLIGHTS
Turkey finals... Without a doubt that was one of the greatest times of our lives. We were so excited that we didn’t really believe that we were selected to be in Cairo for a short time! Everything aside the whole process and the experiences we have shared are unique.

CHALLENGES
First of all to work in such a project as a team requires considerable skill in teamwork. This was our first serious effort but we managed to put everything together and work efficiently. We learned how to use our time effectively and to plan. Also we had no idea which technologies and tools that we were going to use in the project so we started digging MSDN and developer blogs. That was hard work but it was worth it. Needless to say we had hours and hours of coding and design sessions, sleepless nights and cups of coffees but they were all worth it.

FUTURE PLANS
Exactly. We had the idea of this project before we heard about Imagine Cup so we definitely want to use this opportunity as a huge leap forward and launch this project. We are living in a world where people can create web projects that effect the whole world. We believe CogoStuff would be one of them and soon we all will be visiting it daily.

MORE INFORMATION
www.cogostuff.com
www.mertunan.blogspot.com
www.umutkarakulak.blogspot.com
www.alkimsenkan.blogspot.com
www.devblog.cogostuff.com
### TECHNOLOGY/SOFTWARE USED
- .NET Framework 3.5 (ASP.NET WebForms, LINQ, ASP.NET AJAX, WCF)
- .NET Compact Framework 3.5 (WinForms)
- Silverlight 2.0
- Windows Live Services
- Microsoft SQL Server 2008
- Microsoft SQL Server Compact 2005
- Microsoft Sync Framework
- Windows Live Services

### INSPIRATION
We have participated in Imagine Cup before, and once we discovered that one of the Millennium Development Goals and a theme for Imagine Cup is Maternal Health, we could not resist entering the competition once again. Fertility rate and maternal care are huge problems in Ukraine - it is enough to mention that the natural population in Ukraine is decreasing at the highest rate in the whole world. Software Design is something we are competent in and besides it fits well with the idea of a global system.

### TEAM HISTORY
We met at Kharkiv National Radiotechnical University which is a largest academic IT hub of our city where thousands of students work on hundreds of projects and the spirit of enthusiasm and innovation is everywhere. I cannot put it better as to say that we loved each other from the first sight: 5 minutes after we first met to discuss the possibility of cooperating on a project we were already drilling into the details of features and technical implementation.

### TEAM EXPERIENCE
We won the Ukrainian Final Imagine Cup, Software Design category in 2008 with a mobile-based multi-purpose reporting system. Most of us have some experience in real-life projects: Alexander and Eugene worked part-time as .NET developers at a large enterprise and Andrei is a project manager at an IT outsourcing company.

### HIGHLIGHTS
The most surprising and pleasant part of the project so far was the tremendous amount of support we get from almost everywhere. The idea of caring about mothers and pregnant women seems to be important to everyone: from dozens of doctors we interviewed and hardware vendors we cooperate with to fellow students and even our competitors in the Ukrainian finals who contributed several great ideas to the project.

### GENESIS
The idea of caring about maternal health (5th UN MDG) came to us quite naturally: our mentor had become a father of a wonderful baby boy before the project started; Alexander has a few OBGYN doctors in his family and the rest of us give thoughts about becoming parents in the near future. After talking to the head of a maternal hospital in Kharkiv we first decided to develop a health monitoring device but the idea grew larger and later we decided to submit it to Imagine Cup.

### CHALLENGES
The biggest challenge was to build a universal system for pregnant women all over the world. There are different rules, regulations and practices of this field in each and every country and it is really tough to come up with common solutions. Besides that, we faced usual amount of technical troubles like customizing WCF services in CF.NET and Silverlight Beta issues, but we always managed to find a workaround.

### FUTURE PLANS
iMommy Project is a startup and we have been working on its code base for about half a year. Imagine Cup is a great opportunity to showcase our idea to the public but it is not the final goal. We are planning to work on the project by ourselves for a few more months and then seek investment to bring the product to production level. We are working in cooperation with MaxLab, a leading wide-range hardware development company in Kharkiv, Ukraine. They are developing medical monitoring devices that are going to be a part of iMommy system and can be sold separately as well.

### MORE INFORMATION
http://www.imommyproject.com/
United Kingdom

TKCL

Team Members:
Iulian Nitescu
Christian Brüggemann

TITLE OF PROJECT: Pioneer

PROJECT OVERVIEW
Pioneer helps combat congestion in large metropolitan areas by routing cars to reduce overall congestion. It also helps in the planning of infrastructure with the aim of congestion reduction.

TECHNOLOGY/SOFTWARE USED
• .NET 3.5 SP1
• Visual Studio 2008 Professional
• Silverlight 2.0
• Expression Blend 2.0
• Expression Design 2.0
• SQL Server 2008
• .NET Compact Framework 3.5
• Virtual Earth

INSPIRATION
First, it inspired us because it gave us the chance to learn new Microsoft technology. Second, we like competing in a challenging environment. We decided to compete in the Software Design competition because both of us study computer science and our skills are best suited for that competition.

TEAM HISTORY
We met through our course.

TEAM EXPERIENCE
Apart from the fact that both of us study computer science, we enjoyed programming even before university and took place in several other programming competitions.

HIGHLIGHTS
Working with enthusiastic people from Microsoft trying to help us make the most of our entry is one of the best experiences of the Imagine Cup. Also, the final event at Microsoft Research in Cambridge was a very interesting and beneficial event.

GENESIS
The goal of environmental sustainability inspired our solution. There is a lot of modern research going into pervasive computing systems which includes helping the environment. Living in London, we realized how serious pollution in cities is and thought about how to reduce it. Therefore we settled on reducing congestion, because this is the most significant contributor to city pollution.

CHALLENGES
There have been two major challenges: first, we had much to learn about using all the new technologies - for instance, using Virtual Earth and Silverlight was completely new for us. Second, we had to manage our time between university and Imagine Cup and at the end get a working solution. But what will be the biggest challenge is the heat in Cairo!

FUTURE PLANS
We do plan to turn this idea into a business, if we succeed in Cairo. However, we both are in third year of university and need to finish our masters first.
My Mouse Games

Team Members:
James Dickinson
Mark Dickinson
Luke Dickinson

Mentor:
Dr. David McDonald

TITLE OF PROJECT:  MultiPointWEB

PROJECT OVERVIEW
Our solution combines the powers of MultiPoint, Silverlight, and the Internet to allow every child to participate in learning by providing web based mini games where multiple students can share one computer. Teachers can also find and share lesson data to customize their classrooms.

TECHNOLOGY/SOFTWARE USED
• Silverlight Popfly Block
• Games Interoperability (MultiPoint SDK/Silverlight/JavaScript)
• ASP.NET
• SQL Server
• .NET Framework 3.0
• Use of a Mobile device
• MultiPoint SDK
• XML Web Service

INSPIRATION
We saw MultiPoint SDK in the Software Design competition, sharing a single computer. We also have had to share a computer growing up because we come from a family with 13 children.

TEAM HISTORY
We are all brothers.

TEAM EXPERIENCE
We are all hobby developers with varying levels of experience. Jimmy has a Minor in Computer Science and is working towards a Computer Information Systems Master. He has also worked off and on as a programmer for last 3 years. Mark is in his 2nd year of Computer Science and Luke is in a High school programming class.

HIGHLIGHTS
Winning the US Imagine Cup.

GENESIS
At the core of our solution is MultiPoint SDK, and we saw some exciting possibilities using that and our other passions, games and internet. Millennium Development Goals—ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.

CHALLENGES
We have different skill sets and levels from high school to graduate level. Also we live 3,000 miles apart (Jimmy is in Georgia, while Mark and Luke are in Oregon).

FUTURE PLANS
We hope to see our project become self sustainable and continue to help classrooms around the world when we move on to other projects.

MORE INFORMATION
http://mymousegames.com
UNET-MiCiudad

Team Members:
Juan Sánchez
Laura Guerrero
Blas Hernández
Gerardo Herrera
Mentor: Marcel Molina

TITLE OF PROJECT: **Mi Ciudad**

PROJECT OVERVIEW
My City (Mi Ciudad) is an interactive system that tries to educate, entertain and create conscience about our environment. To do this, the application challenges users to build and maintain a city with real features and problems; the user decides how to improve the citizens' quality of live while minimizing damage to the environment. Through this application we seek to create an impact on people, inspiring them to link the problems shown in the program with the real problems present in their communities. The fundamental goal is to have the users apply the solutions they create in the game to their lives.

TECHNOLOGY/SOFTWARE USED
• Microsoft Visual Studio 2008
• Microsoft SQL Server 2008
• Microsoft Expression Studio 2
• Microsoft IIS 7

INSPIRATION
The biggest inspiration was from our professors, tutors and advisors of the project, who helped us focus our ideas from the beginning. We live in a small city of approximately 60,000 people and our university has almost 10,000 students from all over the region. We don't want our town to suffer negative environmental issues. We were thinking how our knowledge could help San Cristobal to have a sustainable environment and at the same time influence in lives around the world. That was when the My City project was born. A system that simulates the problems we see all days in our cities and allows us to solve them.

TEAM HISTORY
We met in the University (UNET), where we are studying Informatic Engineering. We share an advisor at the University, and he has worked with us on several subjects. Gerardo, Juan and Blas started their university studies at the same time in the beginning of 2005, and Laura started her university studies at the end of the same year. Besides being classmates, we are also good friends, and this was very important for the success of the team.

TEAM EXPERIENCE
From the very first day at the University, the Informatics Engineering students get involved with programming, and the difficulty gets greater each year. The team members are in our senior years, so you could say that we have all the knowledge we need to face any challenge.

HIGHLIGHTS
Winning the national competition was, without doubt, an unforgettable experience for each one of us. But it was even more important to see the recognition for our hard work, the congratulations from our partners and the pride of the University. We are very proud of the strong reputation of our field of studies and our country, and it is gratifying to see how the efforts are recompensed in such a special way. Without ignoring the competition we will have in Egypt, we believe we are already winners.

GENESIS
Ensuring environmental sustainability is the Millennium Goal that inspired us. We see how the environment gets deteriorated as time goes on, and that governmental policies aren't sufficient to reverse the ecosystem destruction. These are things that require us to think about solutions. But the truth is that we alone do not possess the resources to solve the problems. Our project is intended to find a way to identify for people in a given place where they can apply measures to solve local problems without harming the environment.

CHALLENGES
The greatest personal challenge has been to devote all our free time to the development of our idea, putting aside all personal interests to integrate a team where each one is a fundamental piece. The principal technological challenge was working with new computing tools like Microsoft Expression Studio 2 and new technologies like AJAX and Web Services. But with online help, the assistance of our advisers and excellent tutor, our doubts and troubles were solved.

FUTURE PLANS
As a team, we want the project to continue and to reach a lot of people. If that requires the creation of a company, a foundation or an organization, we will deal with that challenge as a team. We want the project to teach and demonstrate to all people in the world that technological tools today are available to guarantee a better future.

MORE INFORMATION
http://miciudad.unet.edu.ve
**TITLE OF PROJECT:** The Health Care Supporting System For Children With Mental Problems

**PROJECT OVERVIEW**
This project is a system designed for four groups: diseased individuals, their families, their physicians, and the community. The system is a hardware device used to receive brain signals which are input to the software for analysis and processing. In the case of patients with mental illness, the system will be linked to a database to give a warning when an unusual phenomenon appears on the physician’s mobile handsets. By using handheld devices, the doctor can monitor the situation of patients accurately with imaged brain waves without standing beside the patients as previously required. For families of patients, the system has a module to help families easily track and manage information without specialized medical knowledge. In addition, the hardware devices can also be used as a support tool to control electronic devices through thoughts such as: turning on and off electric lights, and TV. The system has a portal to help the community be aware of health problems as well as statistics on the disease related to the nervous system.

**TECHNOLOGY/SOFTWARE USED**
- .NET Framework 3.5
- ASP.NET
- Embedded System
- LINQ
- SQL Server 2005
- Visual Studio 2008
- WCF (Window Communication Foundation)
- WPF (Window Presentation Foundation)
- Silverlight
- .NET Compact Framework

**INSPIRATION**
Ever since we were freshman at the Hanoi University of Technology (HUT), we have had a huge passion for Microsoft technologies. We have also had a lot of experience in programming with Microsoft Visual C++ and C# and using Visual Studio, SQL server 2000, SQL server 2005, SQL server 2008 and so on. We have known about the Imagine Cup for many years. We knew the Imagine Cup has been an interesting technology competition for youth like us. In addition, we are majors at HUT in software design and we have many achievements in this field. Therefore, we decided to choose the Software Design invitational.

**TEAM HISTORY**
We have been participating into Vietnam Liveclub where we discuss Microsoft’s technologies and other experiences. We knew each other through this and found a mutual passion for technology especially the Imagine Cup. We told our lecturer and were supported to join this wonderful competition.

**TEAM EXPERIENCE**
Most of us are students in the Software Engineering Department, so we had fundamental knowledge of software design. Moreover, one of our members was leader of the team which won the Vietnamese local contest in 2008. Before participating into this competition, we worked on many projects with department faculty.

**HIGHLIGHTS**
The best part of the Imagine Cup competition is the module on thought control devices. Using this technology will help disabled people perform some everyday living tasks such as turning on or off power, television... without requiring movement.

**GENESIS**
The question in our minds that kept coming up when we first discussed our software design project was, “what is the most suitable and best idea for us in this topic of this year?” We visited a hospital and saw a handicapped boy walking on his mother’s hands. This scene inspired us to pursue the project: “The health care support system for children with mental problems.”

**CHALLENGES**
During the project, we had faced many challenges such as the lack of medical data, the lack of financial support, the lack of time and the lack of medical knowledge. The most difficult challenge we had was the biological knowledge related to human brain signals. Because all of us are IT students, we had to work very hard to solve every problem that was not familiar to us.

**FUTURE PLANS**
After the World Final round in Egypt, we are going to invest more time for this project to pursue our dream: bring hope and a brighter future for disable people.

**MORE INFORMATION**
http://mimas.com.vn
We are pleased to introduce the Finalist teams and the one Winner in the following five special Award Opportunities present at the 2009 Worldwide Finals:

- Interoperability Award
- H.E. Mrs. Suzanne Mubarak Special Award
- Tablet Accessibility Award
- Unlimited Potential Design for Development Award
- Unlimited Potential MultiPoint Education Award Winner

These Awards recognize the teams who excelled in specialized areas. The Award competitions were open to all teams worldwide regardless of whether they participated in or won a local Software Design semi-final.

**Interoperability Award**

The Interoperability Award is sponsored by the Microsoft Interoperability Strategy Team in the Developer and Platform Evangelism organization. The award is designed to recognize the software application that best leverages out-of-the-box Microsoft technologies and blends them with other technologies to connect people, data, or diverse systems in a new way. The ability to build technical bridges and blend technologies from different vendors, including free and open source software, has great value in the industry. The experience the teams gain by participating in this Award will help students and their peers build important technical skills that are highly valued in the job market.

**Interoperability by Design**

Connecting people, data, and diverse systems
Proativa Team

Team Members:
- Amirtom Chagas
- Flávio Almeida
- Joao Paulo Oliveira Santos
- Lucas Mello

Mentor:
Professor Santos at Universidade Federal de Pernambuco

TITLE OF PROJECT: ProLearning

PROJECT OVERVIEW
ProLearning is designed to maximize the experience of distance learning. It’s composed by an immersive virtual reality environment, where students exchange experiences and study together. This environment makes it easier than the interaction between tutor and pupils, so teachers can give proper feedback to students. ProLearning also offers a social network application, stimulating socialization and interaction of students. ProLearning has a Mobile module, providing a personalized and automatically updated schedule for the student, indicating and alerting them on the proper times the activities need to be done by the student on his/her distance learning courses. Optionally, the student is able to see the status of their friends in some particular activity, and activate a VoIP call to get some help. Template SMS messages can also be sent in this module to friends and teachers.

INSPIRATION
Imagine Cup is a competition that adds immeasurable value to student teams, instigating one to study new technologies and especially get “out of our box”, studying and learning more about the world most difficult problems. UFPE students generally place well in the Imagine Cup, and we were very inspired by their past examples. Our wish was to continue this trend. This motivated us to work overnight, studying and developing a better solution. This way, we got very encouraged to create ideas and products that have the potential to bring great benefits to the world.

TEAM HISTORY
We have studied Computer Science together since September 2005. Since then, we became friends and have been forming groups for academic works. In 2007, members of our team got the best score on Microsoft’s S2B in Brazil. A very interesting point, primordial for our success is the differences between us. Each member has deep knowledge about distinct areas of interest of computation. As a consequence, projects created by our team have already been presented on Brazilian Microsoft Innovation Centers meeting in 2008, and we have already been finalists of other competitions sponsored by other companies, like Mentez (http://www.mentez.com). Actually we are starting a technology business, and Recife’s Microsoft Innovation Center has invited us to use its infrastructure to develop our projects using Microsoft technology.

TEAM EXPERIENCE
We have been developing projects using the OpenSocial API for some time. This technology was developed mainly by Google, and adapts perfectly to the concept of cloud computing. Using it, we can develop applications that run inside social networks, as Orkut, MySpace and H5. We have our own framework to facilitate in the development of OpenSocial applications using ASP.NET, and already use it on commercial projects for our business. We also have developed projects interoperating with both Google Maps API and Microsoft's Virtual Earth API. It's generally required on the projects we develop: the use of third-party technology or web services. So integrating projects to previously unknown APIs or services is not hard for us. Finally, we always try to follow W3C standards while building our web applications, trying to minimize the problems caused by the use of different browsers.

HIGHLIGHTS
Creating and maturating the ideas behind a new product is always fascinating for us. While developing our Imagine Cup project, we always get faced with problems that require much imagination and some time to let the ideas take their final form. This process, which involves interviewing specialists, acting directly with possible users, trying and evaluating processes and products is very motivating, and finally brings us all great growth as we continue to create and innovate.

GENESIS
Our team believes that by solving the education problem, we create a base for solving several other hard problems our world is facing nowadays. Specifically, we believe that the solution of most of the Millennium Development Goals can be reached by educating people properly around the world. A well educated individual has great knowledge of the effects of his actions on the world, and also is conscious of his rights and duties. Following this belief, we developed a robust and extensible project that solves the main problems of this niche.

CHALLENGES
One of the greatest challenges we faced on ProLearning’s development happened on the project planning stage. We tried to talk and interview the most influential specialists on education. It was very difficult to find some free time on their schedules, as they’re always very busy or traveling. In the end, we managed to get the interviews we wanted, and with the valuable information provided, we started the long planning on our project, elaborating a product that really could add value to our target audience. The most challenging technical difficulty faced was interoperating with Second Life, since its protocols are very detailed, and any misunderstanding or little programming error can cause a great collateral effect on the application.

FUTURE PLANS
Our team intends to study the possibility of launching this project in the market. To achieve this, we will make the necessary adjustments to submit the project to government financial subvention programs, Microsoft SOL (program which our business has signed up) or even finding capital investors. This way, we will transform our Imagine Cup project into a commercial product.
ECRAM

Team Members:
Mohammed Y. Eshbeata
Laith Dawahir
Wassim Shehadeh

Mentor:
Dr. Ashraf M. A. Ahmad

TITLE OF PROJECT: ECRAM: Elder and Children Remote Application For Mobile

PROJECT OVERVIEW
This project is designated to help elders and children through remote mobile application. It sums a lot of different technologies to achieve the proposed mission. Given the variety among the platforms of EC (Elder and Children) and Monitor, ECRAM is designed to handle all the varieties. For example, a monitor can use his mobile to access the EC mobile as he is helping the EC for sending SMS or retrieving an outlook address book entry. In some cases, monitor can also use a webpage to login and check if there is a request from his EC. Then, via open standard web pages connected to certain php and apache server, user will be able to take charge on the EC mobile as in Mobile version. Moreover, ECRAM provides a Desktop application to perform all the function needed to help EC out. The entire parties for ECRAM are connected through Web Services to guarantee the Interoperability in the system to achieve the desired results. Interoperability is not an additive value in our system, in the contrary it is a core value to make ECRAM true and functioning in right manner.

TECHNOLOGY/SOFTWARE USED
- SQL SERVER 2008
- C#.NET
- Windows Mobile Sdk 6.0
- MS IIS 6.0
- Web Services
- ASP.NET
- Active Sync 4.5

INSPIRATION
We decided to help the world in any way we can, so we chose the Imagine Cup as our start. We chose the Interoperability Award because our project was perfectly aligned.
Fteams

Team Members:
Tomasz Ciejka
Grzegorz Glonek
Jacek Pintera
Krzysztof Szokal-Egird

Mentor: Jarosław Koszuk

TITLE OF PROJECT: eduko

PROJECT OVERVIEW
Eduko is a system that strives to ensure easy and universal education in the less developed parts of the world. New technologies and cheap ways of sending information, like SMS or MMS, enable teachers to reach those pupils for whom education was an unavailable privilege. Our virtual board system gives teachers an opportunity to interact with pupils who are far away. The only boundary is their imagination.

TECHNOLOGY/SOFTWARE USED
- Visual Studio 2008
- Microsoft Blend 2
- Windows Communication Foundation
- Windows Presentation Foundation
- SQL Server 2008
- Silverlight
- ASP.NET
- Windows Live
- .NET Framework 3.5.1
- Compact Framework 3.5

INSPIRATION
We've won the Interoperability Award in the Polish Imagine Cup Finals in Software Design competition, so we wanted to compete with foreign teams which have also developed interop projects.

TEAM HISTORY
We are friends from one university...

TEAM EXPERIENCE
We had no experience with Interoperability Award before.

HIGHLIGHTS
A highlight has been the possibility that we may be finding a solution for the Millennium Development Goal of Universal Education.

GENESIS
Our solution was inspired by Millennium Development Goal of Universal Education.

CHALLENGES
Our biggest challenge was designing our mms/sms based communication layer to integrate the whole system. Communication with Nintendo Wii Remote controller and using it as an IR camera proved to be quite demanding as well. Attempting to get .Net, Java and Java ME to work together was another technical problem that we solved during the developing time.

FUTURE PLANS
We are planning to launch our own business based on that project and on a project developed for the Imagine Cup 2008.
The 2009 Imagine Cup enjoys the kind patronage of H.E. Mrs. Suzanne Mubarak, the first lady of Egypt, through the Cyber Peace Initiative. Mrs. Mubarak is graciously sponsoring this special Award competition.

The H.E. Mrs. Suzanne Mubarak Special Award is designed to highlight Software Design projects that best intersect the following: the Imagine Cup 2009 theme “Imagine a world where technology helps solve the toughest problems facing us today”, the Millennium Development Goals, the Suzanne Mubarak Women’s International Peace Movement (SMWIPM), and the Cyber Peach Initiative (CPI) objectives. This award represented an additional opportunity and incentive for the following finalists to use their innovation to change the world.

“We believe the force of reason can, and should overcome the reasoning of force.”
– Mrs. Suzanne Mubarak
**Big Buddy**

Team Members:
Aisha Mohamed Abdul-Aziz  
Marwa Ali Al-Shafey  
Mohamed Mostafa Azab  
Mentor:  
Ahmed Abousafy

**TITLE OF PROJECT:** InternLearn

**PROJECT OVERVIEW**

Many schools in developing countries suffer from lack of resources, under-qualified teachers, and overly-crowded classes. These factors definitely reflect on the students' motivation and explain the relatively low interest in education. Learning difficulties are yet another problem that is usually overlooked. Children with learning difficulties, particularly in developing countries, do not receive the required training and support they need to excel. These children simply require a different way of teaching. To accommodate their needs, the teacher must be well-trained to use different methods and tools, to know the strengths and weaknesses of each student and to work with the child accordingly. However, this is often difficult to achieve in developing countries where classrooms tend to be very large in size, and teachers are not well-resourced.

The solution is to develop software technology to assist primary-level students with learning difficulties in education. The students must have an easy access to the software all the time; at school and at home. The main objective of this technology is to grab the child’s attention and keep him focused and concentrating. To interact with the software, the student simply moves his finger in front of a web cam to write, draw, and solve exercises. In addition, the child may use a mouse, a stylus, a smart pad, a tablet PC pen, or any other input device. The software provides a set of training courses to teach the child basic mathematics, linguistics, and logic thinking through images and videos.

**TECHNOLOGY/SOFTWARE USED**

- .NET 3.5, .NET 3.5 SP1, .NET 4.0 beta1  
- Entity Framework  
- SQL Server 2008  
- ASP.NET for the website of the application  
- Visual studio 2008 & 2010  
- Expression Design2, Blend2, Web2  
- DirectX SDK  
- WPF  
- SQL Server Compact Edition  
- XML Web Service  
- Team Foundation Server 2008 SP1

**INSPIRATION**

Multi-touch walls were inspired by a kids love to draw on anything unusual (e.g. wall, desk)

**TEAM HISTORY**

We were the Second Place Winner of the local Software Design competition in Egypt for 2009.

**TEAM EXPERIENCE**

We worked on different projects during our study at the German university in Cairo and also during our summer internships.

**HIGHLIGHTS**

Highlights have been the Egypt local Finals in April 2009. The Next World Finals in Egypt that take place in Egypt in 2007.

**GENESIS**

We were inspired by the Second Millennium Development Goal that states: "Achieve universal primary education.

**CHALLENGES**

A lot of challenges faced us from the design and development process through the testing phase and visiting schools. One of the problems we faced during the development is standardizing the camera type as different lens from different camera vendors led to variant capturing. We also found challenges in finding an idea for a marker to be available everywhere.

**FUTURE PLANS**

Our plans include finalizing different editions of the project and then to start a spin-off company from our University.
Team Members:
- Julien Dollon
- Olivier Courtois
- Bertrand Vergnault
- Mauricio Diaz-Orlich
Mentor: Yann Lautredou

**TITLE OF PROJECT:** WikiChildProtect

**PROJECT OVERVIEW**
The project is to gather a community of parents around a parental control software. By being free and easy to use, parents from all over the world can protect not only their children but all children.

**TECHNOLOGY/SOFTWARE USED**
- WPF
- Silverlight 3
- SharePoint
- Azure
- C++/C#
- JavaScript

**INSPIRATION**
We already had the idea of making the web safer for children and our school being very implicated in the Imagine Cup we submitted our project. We decided to enter the H.E. Suzanne Mubarak Special competition because it meets our projects goals.

**TEAM HISTORY**
We are all from the same school, and met through extra scholar activities such as participation in school events. After a while, we created the Dotnet-France community a French portal designed to help developers wanting to pass Microsoft Certifications.

**TEAM EXPERIENCE**
None

**HIGHLIGHTS**
All of it really! Microsoft did an incredible job to make it a lifetime experience, all the people we met who helped us improve our submission have made it a really great learning experience.

**GENESIS**
We came with the idea since one of our members faced it while volunteering in an association that aims to bring internet to children in hospital. The main problem was to block access to blacklisted sites and existing parental suites were either not really easy to set up or easy to cheat. We were inspired by the child health millennium goal.

**CHALLENGES**
The biggest problem was to work on Microsoft Beta technologies such as Azure, forcing us to adapt our solution very often and very quickly.

**FUTURE PLANS**
Not really a new business because we want our software solution to be available to as many as possible and cost is often an issue for parents wanting to get a parental control on their computer. We thought of a self sustained based on partnerships with children websites and advertising.

**MORE INFORMATION**
www.dotnet-france.com
TITLE OF PROJECT: Trafstopper

PROJECT OVERVIEW
Trafstopper is a new innovative approach to solve human trafficking in the world collaboratively.

TECHNOLOGY/SOFTWARE USED
- SMS Server
- Live Framework
- Facebook
- WPF

INSPIRATION
Human trafficking is a real problem that we face today and there is currently no system that can stop it. By choosing the H.E. Mrs. Suzanne Munarak Special Award competition, we hope to publish our project that it can really help the world to solve this problem.

TEAM HISTORY
The team was originally formed in October 2008. At that time, the team combination was quite different. We originally had a member named Ahmad Nasikun who had to go to Korea for a scholarship so we replaced him with Ninan Kara. This was the right choice and the team competed in the Indonesian software design local Semi-finals. We then entered the H.E. Mrs. Suzanne Munarak Special Award. But there is something that remains important for our team in every competition: spirit.

TEAM EXPERIENCE
The team consists of 4 students: Ferro Ferizka is the creative specialist at Microsoft Innovation Center in Gadjah Mada University. Giovanni Yoko is the developer specialist and his coding is never in doubt. Ninan Kara is the youngest among us. She is very diligent and passionate. Kinanti is the only medical student on our team. We added her to the team, because her knowledge in social fields is very useful.

HIGHLIGHTS
The H.E. Mrs. Suzanne Munarak Special Award is a door that will help open the eyes of the world to the fact that human trafficking can be solved collaboratively. This is our stage so we can promote our idea to the world.

CHALLENGES
The challenge is not on the development phase, but on the idea construction. At first it is difficult to decide what idea should be developed since we have discovered so many problems in our country. After construction of the idea, another difficult thing was the society interviews since are all so busy with our lectures.

FUTURE PLANS
In the future, our team wants policies and government that can stop the human trafficking problem by using our project. We believe that our project is really helpful for policies and government.
TITLE OF PROJECT: TraMuBraTion—Translate Music to Braille notaTion

PROJECT OVERVIEW
We have created TraMuBraTion (Translate Music to Braille Notation), an integrated tool that supports blind and visually impaired children in education through sounds and music. Our system supports learning the Braille notation—a difficult but necessary part of blind people’s life. Learning the Braille notation with TraMuBraTion consists of special tasks, which help to accustom blind children to Braille cells. With our system blind and sighted children can share their passion to music.

TECHNOLOGY/SOFTWARE USED
• .NET Framework 3.5
• .NET Compact Framework 3.5
• Microsoft SQL Server 2005
• LinQ Technology
• WCF and WPF technologies
• Self-developed recognising and filtering algorithms
• Self-created special rack
• MusicXML
• MIDI formats
• Braille monitor and braille printer

INSPIRATION
The inspiration came from our friend Darek, who plays the piano. He has a blind teacher and Darek was not able to share new scores with his teacher. We began to investigate this problem and found out that the access to scores for blind people is limited and what’s more important: learning Braille is quite difficult for a child.

TEAM HISTORY
Michał Białecki, Małgorzata Domarśka and Michał Wasilewicz are friends for a few years. Jacek Szymczak joined the team quite recently because of his great engineering skills. Paweł Wawrzyniak, our mentor, liked the idea of helping blind children and led the team.

TEAM EXPERIENCE
We are students that do like to challenge difficult problems. Our experience is based on studies and hard work.

HIGHLIGHTS
The best part of Imagine Cup was not the competition, but a moment, when we saw happy children in the School for Blind Children in Owinska. They really liked TraMuBraTion and had fun using it.

GENESIS
The idea is very simple and came almost immediately after we discovered Darek’s problem (mentioned before). We thought to ourselves: Not only can we solve Darek’s difficult situation, but also we can help other children achieve primary education. Our solution is dedicated to children who are blind or visually impaired as well as to the sighted ones.

CHALLENGES
There are no score recognition programs that can be used by blind children and thus creating one was a big challenge. We developed the whole system on our own, including advanced recognition and score translation algorithms.

FUTURE PLANS
We want to still improve our solution, because there are a lot of people TraMuBraTion can help. We hope to come up with a commercial version next year.

MORE INFORMATION
http://kamuflage.studentlive.pl/
Special Child

Team Members:
Sandy Callahan
Shreyasi Dutta
Tomica Seals
Joshua Thacker

Mentor:
Jeff Washburn

TITLE OF PROJECT:  A Parent’s Hope, A Child’s Future...

PROJECT OVERVIEW
We developed an application based on a relatively simple concept; gather information about children who are waiting to be adopted, details about the kind of child a pre-qualified adoptive parent is seeking to adopt, search those two lists and produce matches. These matches are then available to an adoption professional to review for applicability according to the participating countries’ laws and regulations and that agency’s policies and procedures. The idea is not a new one. Companies such as Match.com have already met with success using a similar concept. The explosion of the World Wide Web is evidence that individuals and businesses alike are hungry for the availability of easily accessible information. Where our application differs from all others in existence is that it brings together private, public and international agencies from around the world by providing a mechanism through which they can share data and match children in their system with pre-qualified adoptive parents in any country while still remaining custodians of their data.

TECHNOLOGY/SOFTWARE USED
• XML Web Service
• Microsoft .NET Framework 3.5
• Professional Visual Studio 2008
• SQL Server 2008
• ASP.NET 2.0

INSPIRATION
We became convinced that something must be done to better the adoption process after hearing of negative experiences and researching statistics about the foster care/orphanage system. If our application is successful, we have the chance to deeply touch children’s lives. I can’t think of anything more rewarding than the opportunity to give a needy child a chance.

TEAM HISTORY
We are all Master’s of Management Information Systems (MIS) students at the University of Arkansas at Little Rock (UALR) and have taken 1 to 2 classes together. Each of us excels in a different area involved in this competition that has really made this project a collaborative effort.

TEAM EXPERIENCE
Joshua Thacker, Sandy Callahan, Shreyasi Dutta, and Tomica Seals have collaborated to produce Special Child. Each member has a unique talent and skill set that has contributed to a great product. Currently, all members are based in Little Rock - Arkansas’ capital city - at UALR where Special Child is being developed.

HIGHLIGHTS
Imagine Cup has given us the opportunity to take a simple idea and turn it into an application to provide a solution to a significant problem thus making a positive difference in the lives of children. Due to our determination and dedicated belief in solving the issues that come along with child welfare, we were able to open the eyes of our audience and instill the belief of making a positive difference in the lives of children around the world. Our team prevailed with a third place win in the United States Imagine Cup 2009 SDI competition.

GENESIS
We first chose the topic of adoption which led us to focusing on the Millennium Goals that addressed child health and global partnership.

CHALLENGES
It is easy to design a successful application for a small geographical location. However, we will face challenging legal, technological and cultural issues as we implement our application globally.

FUTURE PLANS
At the very least, we hope to open up the eyes of the community to how dire the process of adoption is in its current state. Initially, we intend to make our application available to private and public agencies in the United States and a few select international agencies that agree to work with us as beta test sites. We will continue to seek interaction with and feedback from members of the United Nations and international organizations to expand the applicability of our application to nations around the globe. We are hopeful that our design will be adopted to encourage nations to partner together to promote child health and wellbeing by quickly identifying matches between adoptive families and children across borders.
Tablet Accessibility Award

We believe that an excellent education is a basic right, and that technology can not only accelerate insight and impact, but also create richer and more immersive learning experiences. Often though, these benefits are not available to those that have physical or cognitive disabilities. This competition focuses on the use of Tablet technology as a means to explore ways to expand the learning potential of technology for those that require improved accessibility.

Accessible applications must help overcome many kinds of challenges, including but not limited to vision, dexterity, learning, hearing, language, communication, and age and aging-related difficulties. Successful participants will have used their imagination, personal inspiration, various external resources and their own technical prowess to develop a solution using Tablet (ink and touch) technologies to achieve breakthrough learning for someone with a temporary or permanent disability.

Submissions were evaluated based on applicability to one or more specific learning scenarios and one or more disabilities; creative use of Tablet technologies; and the overall brilliance and creativity of the team and their solution.

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Team Members:
Pedro Henrique Borges de Almeida
Ricardo Edgard Caveffo
Mentor:
Rodolfo Jardim de Azevedo

TITLE OF PROJECT: Tablet PC Accessibility Toolkit

PROJECT OVERVIEW
Our entry enhances Classroom Presenter by introducing several accessibility features. We handle a large set of disabilities, providing a means for detecting a student’s impairments and providing solutions for them. Our target is the design of a universal solution that can be applied to relatively large classes of students at all levels. This allows students with disabilities to watch a lecture together with other students.

TECHNOLOGY/SOFTWARE USED
- .NET framework
- DirectX
- Windows Media Encoder
- Microsoft Speech Magnification API FFMPEG
- Microsoft Visual Studio
- GIMP SoundForge
- Windows XP and Vista

INSPIRATION
Imagine Cup has great visibility and attracts brilliant students from all over the world. We thought that if our proposal was accepted as one of the finalists then we can be sure that it’s going in the right way. The competition’s proposal is also very interesting, as we can apply our solution to real world problems, possibly helping people to achieve in their learning process. We choose the Tablet Accessibility Award because it’s our expertise area. We have been working with Tablet PCs since 2002. We felt that it was a good opportunity to see how our proposal compares against other ones.

TEAM EXPERIENCE
We worked in human factors in the Human-Computer Interaction discipline during our graduation.

HIGHLIGHTS
So far the best part was the finalist announcement!

GENESIS
During the human factors in Human-Computer Interaction course, Pedro and Ricardo had the opportunity to study several proposals to overcome student’s disabilities, especially in their learning process. We tried to figure out how we could tackle all these problems in a universal way, generating a tool that could be used by any student, of any level. Based on the literature results that active learning environments, empowered by Tablet PCs are proving to be a excellent way of improving student’s learning. We applied our ideas by introducing several accessibility features into the Classroom Presenter. Clearly we were inspired by the United Nations Millennium Goal of Universal Education.

CHALLENGES
We both worked on the proposal in our spare time, which reduced our capacity to implement a state of the art solution. Our mentor was very important in the process: his ideas helped us by making us focus in on the right problems. Technologically we had the problem of quickly learning several new technologies, since our proposal used a lot of existing work and different libraries. Some of them were very well documented, with examples and clear usage descriptions. Some of them were poorly documented and hardened the development process.

FUTURE PLANS
Ricardo has begun work on his doctorate. Pedro, along with 2 computer engineers, is opening a company that will focus their development in Tablet PC tools. We are going to make this project open source and free. We plan to make the source code available to anyone who finds it useful.

MORE INFORMATION
http://www.ic.unicamp.br/~rodolfo/tabletpc/
Auratech

Team Members:
Ryan Gentner
Casey Williams
Mentor:
Michael Buckley

TITLE OF PROJECT:  Mirage

PROJECT OVERVIEW
Mirage provides the end-user with the ability to create effective learning tools geared towards teaching physically and mentally challenged individuals. Our goal is to make designing such learning methods a relatively easy task, given an intuitive user interface. Although our product's main focus is to target such (challenged) individuals, Mirage can be used to accommodate the needs of any person, at any age. Provided these characteristics, Mirage allows teachers to focus their efforts on "what" to each, rather than "how" to teach.

TECHNOLOGY/SOFTWARE USED
• Visual Studio 2008
• .NET Framework 3.5
• Adobe Creative Suite CS4

TEAM HISTORY
Our team is comprised of classmates who met while enrolled in a Hardware-Software systems course at the University at Buffalo.

GENESIS
Regarding the Millennium Development Goals, we sought to contribute to goal 2, which is to "Achieve universal primary education.” Education is the basis for a successful life, and this fact alone plays a role towards accomplishing the other “Goals” as well. Not all individuals are perceptive to a single means of being taught a given subject or concept. With this in mind, two things need to be in place in order to effectively educate anyone: a teaching method which appeals to that given person and a purpose for teaching that person such material. One of the fundamental objectives of Mirage is to provide the ability to adapt a lesson to the interests of the end-user. Given the "interest" factor, learning becomes enjoyable and effective. Education takes many forms, justifying the need to make our software very "open ended"; That is, the only true limitation in using it is the amount of creativity possessed by the end-user.

CHALLENGES
Our initial task was very open-ended, causing us to invest a significant amount of time deliberating about design and an overall goal. Each team member had different ideas regarding the path we needed to take to accomplish certain goals, and a consensus needed to be in place before we actually began development.

FUTURE PLANS
As of now, we see practical improvements that could be made to our software to facilitate usability. Our ultimate goal is to have end-users with special needs benefit by making use of our product.

MORE INFORMATION
http://auratech.mine.nu
Design for Development Award

The Design for Development Award, sponsored by Microsoft Unlimited Potential, challenges students to create a software solution that is accessible to users in under-served communities. To meet the unique challenges of providing relevant technology access, projects are required to leverage the SMS and voice capabilities present in basic mobile phones. By engaging with potential end-users, the finalist teams distinguish themselves in their ability to design a software solution relevant to the lives of the 5 billion people around the world who live on less than $8 USD a day.

Each of our Finalist teams demonstrates excellence in the following areas:

• User-Centered Design
• Feasibility
• Impact and Originality
• Mobile Innovation
Our solution focuses on the children pneumonia diagnosis in less developing areas such rural areas in China. In these areas, the main obstacle of the disease diagnosis is the inconvenience of the traffic and lack of experienced experts. As a result, an easy access to the experts seems to be rather urgent. Actually, only a stethoscope can help experienced doctors diagnose whether the child is with pneumonia or not. Then what device can play a role to collect the lung sound and send it to remote experts? What’s more, the device must be both cheap and easy to take because of the special end users. Taking all these factors into consideration, we find that a mobile or a cell phone can supply all the demands above. We convert the common stethoscope into an electronic one whose core is the mobile or cell phone. The remote experts will make a diagnosis according to the lung sound comparing the lung sound to the lung noise of a healthy person, and make subsequent treatment recommendations via an online application. The name CoDoc has two meanings: Cooperate with Doctors: just like we mentioned before, CoDoc is a good assistant for the rural doctors, which can help them with a more accurate diagnosis. CoDoc sounds like “call doc”, and this is a proper summarize to our project in usage level—A call or a request to a doctor, then the doctor will give you a help in time.
TITLE OF PROJECT: LaTansa

PROJECT OVERVIEW
LaTansa is SMS-based reminder system which is aimed to help Tuberculosis patients to administer their treatments. It is completed with LaTansa SMS Info, LaTansa SMS Center and LaTansa Website to give more information and knowledge about TB, not only for patients, but also for the general public.

TECHNOLOGY/SOFTWARE USED
• .NET Framework 3.5
• Microsoft Visual Studio 2008
• Microsoft SMS Server Toolkit
• Microsoft Silverlight 2.0
• Microsoft Office Communication Server 2007
• Microsoft Office Professional 2007
• Windows Server 2008
• SQL Server 2008
• Microsoft Expression Blend 2.0
• Microsoft Visual Studio Tools for Office
• Microsoft Virtual Earth SDK
• Microsoft Popfly Block

INSPIRATION
All of us have a big dream to always help another people. See the reality, there are so many problems facing us today: poverty, starvation, poor education, child and mother mortality, sickness, etc. We saw the Imagine Cup as one way for us to build our dream by implementing science and knowledge combined with proper technology. Hopefully, this technology will bring about a better world. As we know, Indonesia is one of the developing countries, so it is fair for us to choose the Design for Development Award. Furthermore, by living in this developing country, we should have more information and get closer to the facts, so that we can implement technologies with the best solution based on real evidence.

TEAM HISTORY
Three of us have known each other since senior high school. We were met at a competition event, Honda Best Student 2005. Two of us also received the same scholarship from Beastudi Etos, Dompet Dhuafa Republika.

TEAM EXPERIENCE
With all members of team, we hadn’t competed for this kind of competition before. But, for individual action in other organizations, pedjoeng’s members have been joined with other charity and development programs.

HIGHLIGHTS
I think the best part is when we go to TB patient’s home to engage with them and brief their treatment problems and help come up some solutions, test them and return to get feedback from them on the solutions.

GENESIS
We saw that health is still one of the biggest challenges for the world today. There’re so many deaths caused by disease. TB is the number one infectious disease killer worldwide. Realizing that Indonesia has the third highest number of TB cases, we were inspired to solve this problem by using proper technology. That’s why we choose 6th point of MDG, to combine health science with technology and give the best solutions for TB problems.

CHALLENGES
First, it’s a big challenge for us to learn some new Microsoft technologies and then choose the best to use in our solutions. Then, we had technical challenges when tried to use the SMS Server Toolkit.

FUTURE PLANS
For the future, we want to continue this project development and implement our project to the real world. For starters, we will implement this solutions in our lovely country, Indonesia.

MORE INFORMATION
Official Pedjoeng Blog: www.pedjoeang.co.cc
Official LaTansa Website: coming soon (www.latansa.org)
Title of Project: Virtual Health Connect (VHC)

Project Overview
Virtual Health Connect (VHC) keeps track of children’s immunization schedules automatically and sends SMS reminders to parents before a scheduled vaccination is due. Thus, parents will be reminded to bring their children to clinics for a vaccination on time, resulting in a decrease in the number of defaulters. In line with United Nation’s Millennium Development Goals (MDGs), VHC targets to reduce under-five child mortality rate by increasing global immunization coverage. Hospitals or clinics can get rid of the inefficient immunization card/book system as all vaccination records are stored electronically in our Web servers. Best of all, vaccination records can be retrieved by healthcare providers and individuals worldwide in times of need (registering for school or traveling into endemic-prone countries) via our Web site or SMS. The novelty of VHC lies in its ability to automate the sending vaccination date reminders to parents as well as easy retrieval of vaccination records, news on free vaccination campaigns and immunization educational contents via SMS. Multi-lingual SMS texts will also be implemented to reach out to communities from different racial background.

Technology/Software Used
- Microsoft .NET 3.5 Framework SP 1
- Microsoft Silverlight 2.0
- Parallel Language Integrated Query (PLINQ)
- Task Parallel Library (TPL)
- Microsoft SQL Server 2008
- Windows Communication Foundation (WCF)
- Virtual Earth
- Google Health
- ASP.NET

Inspiration
Our source of inspiration stemmed from the Arabian Proverb: “He who has health has hope; he who has hope has everything”. We were inspired to help the “bottom-billion” not to be left out from being protected by immunizations.

Team History
Four of us are friends from the same faculty sharing the same vision and passion to develop real-life solutions using technology. We attended the same courses together during our first year in university and loved to hang out at McDonald’s to brainstorm and discuss about our next big ideas. It was Imagine Cup that has brought us together officially as a team. Our team was named Cosmic as we believed that our combined forces possessed the power to rock the world!

Team Experience
The team had gone through numerous leaps and bounds ever since our first Imagine Cup experience in 2008. Being the champions in our country and representing Malaysia in Paris had opened our eyes to the endless possibilities on how technology could save the environment. Although we did not win in the Worldwide Finals last year, our Imagine Cup spirit had motivated us to take up the challenge to solve the world’s toughest problems this year. We learned how to compliment each other’s strengths and weaknesses and had a lot of fun working together as a team.

Highlights
The idea of VHC was born in August 2008 right after we returned from Paris. We worked on it as our final year project in university. Based on our previous experience, we discovered a whole new meaning to software development. It was not just about writing lines and lines of codes; rather it was more about creating a human solution touching communities and making a difference in people’s lives. We competed in the software design local finals with nine other strong contenders from various varsities in Malaysia but only managed to be the first runner-up. We were surprised and truly humbled to be given a second chance to compete in the Design for Development Award in Cairo, Egypt.

Genesis
We are motivated to solve the Millennium Development Goal 4, which is to reduce child mortality because we strongly believe that life is very precious, especially for our children, who are the future world leaders of tomorrow. Team Cosmic is dedicated to save lives! From the World Health Organization (WHO), we were shocked to learn that 1.4 million of deaths among children under 5 years worldwide were caused by vaccine-preventable diseases. In our home country, Malaysia, annual children under 5 deaths amounted up to 6,105 and most of these cases were caused exposure to infectious diseases. These sad facts had ignited a flame within us to prevent unnecessary deaths caused by such diseases via our solution, Virtual Health Connect (VHC).

Challenges
Carrying out user research was the toughest challenge we had to face throughout the entire project. In fact, system development turned out to be easier than we initially expected compared to the extensive research work done. To implement a health system, we must obtain permission and ethical clearance to pilot our project at a government clinic, mostly serving rural folks who earned less than USD 8.00 a day. As patients’ health records were confidential, the state health officers were very stringent in granting permission for us to collect patients’ health data and to interact with visitors of the clinic. We had to undergo tedious permission letter correspondences and agreements before our request was approved. These challenges had taught us to be creative problem solvers.

Future Plans
We plan to bring VHC up to the next level as a non-profit organization. To support our NGO technological startup, we plan to apply for local funding. After we have established ourselves as an NGO, we can then apply for international funding and grants to support our effort in reducing child mortality via VHC. Also, the Malaysia Multimedia Development Corporation has expressed interest to make VHC a part of their Government 2.0 project. Our aim is to implement a nationwide immunization monitoring system and work with established hardware and infrastructure providers to reach out to all rural areas, thus helping Malaysia achieve 100% immunization coverage. We will definitely continue on with our effort to touch other people’s lives using technology.

More Information
http://team-cosmic.blogspot.com/
TITLE OF PROJECT: GreenEve2Peace

PROJECT OVERVIEW
Rice is the staple food in South East Asia. To ensure the steady supply of rice, we need to help farmers by taking into consideration the multiple factors that affect crop production. Muda Agricultural Development Authority (MADA) is a government agency in Malaysia who is responsible for improving the socio-economic well being of large portion of the rural population and increasing the rice yield for national requirements. Currently, most of the tasks being carried out by MADA are done manually through letter, poster and portable speaker. Through the use of technology, GreenEve2Peace can assist MADA in helping the farmer community in Malaysia to solve their problems that will affect their farming activities. We utilize the simple text messaging services on cell phone. Our solution is low cost and easily accessible to the farmers.

TECHNOLOGY/SOFTWARE USED
- SQL Server 2008
- Window Presentation Foundation (WPF) Technology
- Silverlight 2.0 Technology
- Simple Mobile Phone as GSM Modem

INSPIRATION
We first heard about the Imagine Cup Software Design competition from our course mates, who were Software Design worldwide finalists in 2008. The valuable experience they gained during this competition was inspiring. For that reason we tailored our final year project to be inline with this year Imagine Cup’s theme. In addition, our mentor encouraged us to participate in Malaysia’s Imagine Cup 2009. We hope to share and gain experiences and broaden our knowledge by participating in the Imagine Cup competition.

TEAM HISTORY
Our team is known as the Capricorn team and we are students from the School of Computer Sciences, Universiti Sains Malaysia (USM), Malaysia.

GENESIS
Decision making has always been a major headache for farmers, especially during the process of paddy seeding, fertilizing or harvesting seasons due to unpredictable weather. Farmers are confused with the weather forecast information from television, radio, and newspaper. Most of the times the information reached the farmers quite late which will greatly affects their farming activities. GreenEve2Peace is collaborating with MADA in helping the farmer community to make the right decision by providing them the correct and up to date broadcast weather information and recommend time table of farming activities. We hope to achieve the UN Millennium Development Goal: 1. Goal #1: Eradicate extreme hunger and poverty and 2. Goal #7: Ensure environmental sustainability.

CHALLENGES
We face challenges in understanding paddy planting process from MADA and farmer community in Malaysia. We have had to conduct interviews to understand their problems faced during farming activities. We need to consider the cost of the technologies used to deploy our solution so that it is affordable to the farmers.

FUTURE PLANS
We wish to obtain a grant from government to implement our solution within six months time. We will be working closely with MADA to implement the system stage by stage. In addition, we will also be extending our solution to include other agriculture sectors like livestock (chicken, duck and pig) and fishery. We would like to extend it to our neighboring countries once we have successfully implemented the system in Malaysia.

MORE INFORMATION
http://team-capricorn.blogspot.com
http://www.cs.usm.my/announcements/Imagine_09.php
E-Farmer

Team Members:
Acellam Guy
Okori Ivan Nape
Joseph Kaizzi Kasolo
Kibet Seth Kigen

Mentor:
Narcis T Rwangoga

TITLE OF PROJECT:  A Parent’s Hope, A Child’s Future...

PROJECT OVERVIEW

E-Farmer is an innovative solution that allows for farmers and traders to buy and sell crops through an SMS based auctioning system. In addition to the agricultural e-marketplace, the e-Farmer system allows for farmers to query weather forecasts, query for market information, and seek expert advice on day-to-day agricultural questions via SMS. E-Farmer has support for several local languages and is financially sustainable.

INSPIRATION

The Design for Development Award addresses issues that appeal to people in underserved communities who experience numerous problems and highlights how technology can help improve their way of life. This directly applies to the situation in Uganda where over 70% of the population earns under $8 a day. The number of mobile phone users in Africa and in Uganda particularly has greatly increased. Statistics suggest that there is at least a single phone for each household in Uganda. The award required that the solution be used on a simple mobile phone (i.e. one that supports voice and SMS only), which was quite convenient for us.

TEAM HISTORY

We are all doing undergraduate degrees in Computer Science at Makerere University in Uganda.

MORE INFORMATION

http://mulimi.blogspot.com/

FUTURE PLANS

We intend on furthering this project to completion. We plan on seeing it through to full scale implementation. Starting up an NGO or a company is on our minds. However, we are open to partnerships with either existing NGOs or government ministries that show interest. Additional functionality will be added in due course. This includes: Interactive Voice Response (IVR) capability and SMS based crop disease identification and monitoring.
The MultiPoint Education Award, sponsored by Microsoft Unlimited Potential, challenges students to develop an interactive and collaborative educational application for children ages 4–15. All solutions are based on the Microsoft MultiPoint Software Developer Kit, an innovative new technology that enables up to 25 mice to be used simultaneously on a single computer.

Our winner demonstrates the highest level of excellence in the following areas:

- User-Centered Design
- Feasibility
- Impact and Originality
- Innovation with MultiPoint
TITLE OF PROJECT: DISHA—DISease and Health Awareness

PROJECT OVERVIEW
DISHA (DISease and Health Awareness) is a collaborative multiplayer educational game which aims to teach children about all aspects of Malaria including the spread, symptoms and prevention of the disease. Built on the Microsoft MultiPoint SDK, this game allows children to navigate and play a series of story based games simultaneously through the use of different color mouse cursors.

TECHNOLOGY/SOFTWARE USED
• Microsoft Visual Studio 2008
• .NET Framework 3.5
• MultiPoint SDK
• Microsoft Expression Blend

INSPIRATION
For the last three years, we have watched our seniors take part in the Imagine Cup and then on to great places in their careers. Our initial push towards participating in Imagine Cup was a desire to be a part of something which gives us a sense of great achievement. And to be part of something which helps us carve out our futures. It gradually became more about playing a role in creating a positive change in society through our efforts. This led to the germination of our idea.

TEAM HISTORY
We were friends before the Imagine Cup, studying in the same group for the last three years. Our diverse areas of expertise, made us realize that we would form a perfect team for the Imagine Cup. Consequently, one chilly night in December we had our first team meeting, which sealed our fates for the next six months.

TEAM EXPERIENCE
All of us have been familiar with the ongoing efforts in the space of ICTD; while one of our teammates has interned at Microsoft Research Labs, India, working on designing the first of its kind CAL solution for children in developing regions using MultiPoint.

HIGHLIGHTS
Before the MultiPoint Education Award, we had participated in the Software Design category. We were second runner up at the Software Design National Finals. The atmosphere at the venue was great and there were research and industry stalwarts who appreciated our demonstration; additionally, it was the first time we were presenting on such a big stage. It was a memorable experience.

GENESIS
In a developing country like India, one of the primary reasons for the abundance of health maladies which are otherwise entirely preventable and curable, is the lack of awareness. Since an education framework in form of schools already existed, we decided to build an application for children in underserved areas which helps to spread health and disease information. The Millennium Development Goal of Universal Education fit right into the center of this. One of the clauses in the goal description says that “The quality of education is as important as enrollment”. We realized how true this fact was, especially in a developing region like ours and this was what guided our project.

CHALLENGES
The biggest challenge was balancing our collegial responsibilities with the project. We had tough time management issues and some really tough compromises to make. Technologically, designing a user friendly GUI for our application which is best suited for children was the biggest challenge.

FUTURE PLANS
After the Worldwide Finals, we will deploy our project DISHA extensively in various primary level schools in rural and semi-urban India with the help of NGOs working in the field. We will try to widen the scope of our project by localizing it in various regional languages and including other health ailments as well. We intend to collaborate with the Universal Education programs of the government to reach the masses so as to benefit the maximum population through our product.
Embedded Development

Embedded devices are becoming smarter, more powerful, and woven seamlessly into the fabric of our everyday lives. In the Embedded Development competition, we challenged teams to unleash their creativity in an effort to change the world into a better place.

Embedded Development finalists went beyond the PC desktop and worked in both hardware and software to build an embedded solution using Windows Embedded CE 6.0 R2 and a provided embedded board. They created their own embedded devices using the Millennium Development Goals as their critical launching pad. The fantastic and innovative designs and solutions featured here include original and crucial functionality and yes, they do aim to solve some of the world’s toughest problems.
TITLE OF PROJECT:  MC2L—Mobile Collaborative Laboratory for Learning

PROJECT OVERVIEW
The MC2l is a device that integrates a camera, a projector and an eBox-4300. Where children, with modifiers, can interact with the interface that is displayed by the projector. Our solution aims to help children achieve the level of basic education with quality through lesson more interesting.

TECHNOLOGY/SOFTWARE USED

INSPIRATION
After the success of the Imagine Cup 2008, with a Brazilian winner (in the game dev category), we got excited about the opportunity to also participate in this competition. In the laboratory where we work, there were people who participated in the Imagine Cup in past years. The theme of Imagine Cup and the desire to work with new technologies were also crucial inspiration. Our idea finally inspired us to participate, because we love it.

TEAM HISTORY
We are all students of Sao Paulo State University (UNESP) and we also work in the same lab.

TEAM EXPERIENCE
Two members had experience with Embedded Development. Pedro already programmed for PDAs using the Windows platform (Windows Mobile). Thiago had already experienced programming for Windows CE in non E-box devices.

HIGHLIGHTS
Our team work, the use of new technologies, new hardware, use of embedded technologies and the final result that surprised us – these have been the highlights.

GENESIS
We were doing a brainstorm about how a solution could resolve all of the Millennium Development Goals. After we thought that many goals are not solved by a condition or attitude of the government, or put to the world to solve. Even today there are many technologies and processes that could solve the problems. For example, hunger, everyone knows how to resolve this problem, but sometimes the government doesn’t make it their interest to solve it. Thinking also how we could better use technology to solve the goals, we believed the solution was in education. Education can affect the quality of all of the other goals. After several meetings we designed the MC2L—collaborative mobile laboratory for learning, a kind of digital blackboard.

CHALLENGES
We faced many technological challenges with Embedded programming, programming for Windows CE, DirectShow, Windows API, image processing, driver and Windows CE Personal. We also dealt with problems such as planning (chronogramming, division of tasks), teamwork and use of time.

FUTURE PLANS
We want to continue the project. We plan to send the idea and the project to others competitions and events. If we can gain support we will continue improving and trying to turn our idea into a product.

MORE INFORMATION
Laboratory Info: http://www.ltia.fc.unesp.br/ltia2006/index.html
Cheops Interface (our partner): http://www.youtube.com/watch?v=P7j3YzUQ3yk
TITLE OF PROJECT: Project Grow

PROJECT OVERVIEW
Project Grow’s primary objective is to facilitate and automate as much of the greenhouse growing process for its user. This will work to alleviate hunger and help bring an end to poverty. Grow is an autonomous structure which will regulate the various conditions necessary for the growth of user specified plants. A multitude of sensors will be used by the embedded device to monitor the conditions inside and outside the greenhouse. Depending on the measured values, the embedded device can determine the best course of actions in order to maintain an optimum growing environment.

TECHNOLOGY/SOFTWARE USED
- Microsoft Windows CE 6.0 R2
- Microsoft Office 2007
- Microsoft Office Online
- Microsoft Expression Design/Webpage
- PPT-PLEX Add-on Powerpoint

INSPIRATION
Each member on team Bamboo & Papyrus wanted to apply their skills in engineering and technology in helping people live a better life. Microsoft’s Imagine Cup offered us the opportunity to apply what we have learned and provided the resources to increase our knowledge in Microsoft technologies. Our research alerted us of the great concern for the developing nations’ people. With the population growing at record rates and no sustainable solution in place that is both immediate and economically justifiable, the current status cannot be corrected or reversed with the given resources or plans in place.

TEAM HISTORY
William proposed in creating a team for the Imagine Cup 2009 challenge and sought his long time friend and partner in robotic projects, Sherwin, for advice. This brief introduction sparked both members’ interests and created an engaging environment on both sides. The set out to find team members to build and implement a solution for this year’s challenge. Soon Wei and James were on board.

TEAM EXPERIENCE
Initially, Team Bamboo & Papyrus did not have a great deal of experience with Embedded Development. However, what we did have was general programming experience as well as the mindset to drive us to learn and understand more. Every member within the team had different aspects and traits that they could bring to the team.

HIGHLIGHTS
The best part of the Imagine Cup competition to date has been the realization of the importance of human life and how fragile it really is. While researching on the essential nutrients and minerals that would sustain a living organism, we were reminded how similar our current infrastructure and modern day society are to the human life system. The body’s management system and the elements that sustain life can be related to how our current metropolises are designed. We were reminded again of the basic necessities of a living organism and how our own systems will fail instantly if those essential requirements were not satisfied. This realization solidified our team’s intention and motivations in helping others live a beautiful life.

GENESIS
The logical thinking was as follows: when one analyses these severe problems, they slowly lead to the creation of an endless spiral of cause and effect. Many of the problems the MDGs attempts to solve are closely related to each other, each affected by the next. This sort of outlook might imply that there is no solution because one cannot be solved without solving the others. However, today’s developed world had to start from a state similar to the state of today’s emerging economies. Thus, there exists a solution and it can be found by looking at history. Project Grow would be the agricultural solution to help developing nation advance towards becoming a member of the developed world.

CHALLENGES
On the personal front, the greatest challenge for all team members was the juggling of school work and Project Grow. On the technical front, the development of the prototype was definitely a bumpy ride. We encountered many road blocks along the way. Some could be cleared, while others required an alternative route. Despite the difficult challenges we faced, Team Bamboo & Papyrus thanks Microsoft for this learning and growing opportunity.

FUTURE PLANS
Team Bamboo & Papyrus is in the process of planning and creating business venture partnerships that would work alongside government initiative projects to fight and end world poverty and hungry. The team hopes to travel to developing nations and conduct more in dept research that would provide better feasible market entry schemes to deliver Project Grow to the people.

MORE INFORMATION
http://www.bamboo-papyrus.com
http://www.endpoverty2015.org/
http://www.fao.org/
**TITLE OF PROJECT:** iSee—Networked Learning System for the Blind

**PROJECT OVERVIEW**

A low-cost embedded solution is proposed to help over 3.7 million blind people all over the world with their accessibility to Internet information and education, which enables them to reach large amount of digital reading materials, read online RSS news, and even chat with online friends using Braille directly. Nowadays, the blind people, especially those in developing countries, are facing serious problems in their education. The scarcity of Braille printings as reading materials, limited source of information, and lack of affordable and effective accessibility technologies, has isolated their life from the world, and hampered their development of not only knowledge, but also psyche. The whole system is developed based on the special reading and writing habits of the visual impaired people. A novel Human Computer Interface (HCI) device is originally designed, including refreshable Braille display, assistant keyboard, and speech synthesizer and innovative handwritten Braille recognition module, which enables the blind users to “read” displayed Braille texts like reading Braille printings, “listen” to synthesized speech like listening to people, and “write” Braille directly like writing on paper daily.

**TECHNOLOGY/SOFTWARE USED**

**Technology Used:**
- Text to Speech
- Braille display
- Data Access Object Designing Mode
- Web Service
- C/S Architecture
- Code Refactoring

**Software Used:**
- Solidworks 2007
- Protei DXP
- SSTEasyAP11F
- Microsoft Visual Studio .NET 2005
- Serial-Port Test Tool
- Electromagnetic Lever Actuator-based
- Touch Screen
- ASP.NET
- Object-Oriented Programming
- UDP Communication
- Factory Pattern
- Autocad 2006
- Keil uVision3
- Platform Builder
- SQL Server 2005
- IIS 5.1.

**TEAM HISTORY**

All of us are members of the Electrical and Electronics Innovation Center of Science & Technology (EEICST) of Huazhong University of Science and Technology, which is built for students to spontaneously engage extracurricular practices. We have been studying there for three years together. Four of us have different specialties, such as hardware design, software design and project management. Besides, we all have enthusiasm in realizing the system, which was just an idea before.

**TEAM EXPERIENCE**

Before Imagine Cup, each team member has experienced many embedded projects and competitions. Biao Mao has developed a Distribute Temperature Detection System with embedded solution and has successfully applied National College Student Innovation Project Funds. Hao Peng has developed an Intelligent Home Cleaning Assistant, an Intelligent Temperature Control and Water-saving Water Heater System and won the Best Technology Award in Actions Semiconductor Embedded Development Contest. Xuan Zhang has participated in the project of “Middle-Size Autonomous Soccer Robot”, and the project of “Autonomous Swine Raising System”, and had won Best Innovation Award in Actions Semiconductor Embedded Development Contest. Xiudong Tang was also a team member of the research group on “Middle-Size Autonomous Soccer Robot”.

**HIGHLIGHTS**

Imagine Cup is really cool. It not only provides us chances to visit the most beautiful cities in the world, and meet friends from different cultures and nations, but also enables us to learn from the most brilliant minds from all over the world, then get ourselves improved in abilities and confidence, and ultimately turn our imagination into useful solutions for practical problems.

**GENESIS**

Millennium Development Goals emphasize the importance of Universal Primary Education (UPE) for everyone. However, according to our survey, we found the primary education is not well performed for a social vulnerable group -- the blind. As engineers, we think we can help the vulnerable groups with technologies. The visiting to school for the blind increased our responsibility and determination to develop some technology to help them. Later, we came up two novel strategies for the Human Computer Intercommunication for the blind with considering their daily reading and writing habits.

**CHALLENGES**

Since our team consists of 3 members in China, and 1 member in USA, the division of labor and task, daily communication and team management requires special effort. So far, in spite of the location distance and time difference, we have a great team work. Everyone is doing the owe job well. Since, we had formal meetings every week, we are actually learning from each other. Technically, the main problem is the bi-directional coding for the transformation between the Braille and normal characteristics. Because words may have the same pronunciation while having not the same meaning, which makes errors when coding and decoding, translation should be done in context. This problem has been solved using special algorithm. Secondly, we also had some problems in the development of the Braille Display, including how to save the space and power consumption, how to improve the robustness of the display. We had been making improvement during the development. After fail and try and making four generations of this display, we finally made the display meet our requirement well.

**FUTURE PLANS**

Yes, several senior schoolmates who have also participated in Imagine Cup are working with us to set up a company, to produce and sell educational robots and other auxiliary devices.

**INSPIRATION**

After visiting the Wuhan School for the Blind, we found lives in the dark world are really hard. More advanced technology is supposed to be available to help these people. However, what we saw in that relevant market only provides products of low performance cost ratio, and all existing instruments are PC peripherals, which calls for extra investment of computers. As engineers, we thought it is our responsibility to help them with this, developing a low-cost embedded auxiliary instrument for them. Later, we thought out novel ideas and fulfilled two patents, and we found that the Imagine Cup provide us a great opportunity not only in realizing our system with low-cost embedded solution, but also attracting more attention of the world to the blind people.
MedBox

Team Members:
Osama Ragab Ahmed
Maher Mohammed Ragai
Ahmed Osama Baker

Mentor:
Dr. Mohammed Osama

TITLE OF PROJECT: MedBox

PROJECT OVERVIEW
The project is simply a new solution for hospitals that targets several problems that they face every day at hospitals as a result of unexpected mistakes from staff members, malfunctioning medical equipment and also from late alarm systems.

TECHNOLOGY/SOFTWARE USED
Technology Used:
• E-Box Unit
• TRF7960 RFID R/W
• National Instruments Data Acquisition (DAQ)
• 65Mhz Analog to Digital Converter (ADC)
• RFID Tag

Software Used:
• Microsoft Windows Embedded CE 6.0 R2
• Microsoft Windows BizTalk Server
• NI lab view

INSPIRATION
The inspiration was originally a result of our enthusiasm to apply what we have learned on a real life solution and to test our ability in development as young engineers. We choose Embedded Development because we are interested in embedded systems and also the idea of the project involves a part for everyone on the team.

TEAM HISTORY
Team members have been colleagues at the same university and friends for about four years.

TEAM EXPERIENCE
Our experience with embedded development has been driven through courses, trainings, and some small projects that we worked on during our university studies.

HIGHLIGHTS
The best part was when we were shooting our five-minute video presentation, as it took us four hours to shoot, and to edit the final video.

GENESIS
The best part was when we were shooting our five-minute video presentation, as it took us four hours to shoot, and to edit the final video.

CHALLENGES
Personal challenges were many. We had to work on the project, study for our university work, and study for our technical courses. About technical challenges, we had some of them, as we have a little of experience in choosing the most suitable technologies. It took us some time to determine the technologies that best suited our MedBox – in order to make it a state-of-the-art project.

FUTURE PLANS
It might be possible to meet some industry leaders who can fund our project and help us make it reality.
**TITLE OF PROJECT:** S.W.E.E.T (Smart Wheelchair with Embedded Electronic Technology)

**PROJECT OVERVIEW**
The SWEET system can be mounted on existing electrical wheelchairs to enhance safety and comfort, therefore helping the integration of disabled people in urban environment. The system includes an embedded computer running Windows CE 6.0 with a GPS/GSM module and dedicated software. It also includes a mechanical and electronic climbing system enabling the wheelchair to clear obstacles (like a sidewalk, door step, etc.).

**TECHNOLOGY/SOFTWARE USED**
- Electronic board with dsPIC microcontroller
- eBox with Windows CE 6.0
- GPS/GSM module
- C/C++ and C# development
- Mechanical development including: jack, spring, clamps etc

**INSPIRATION**
We study Windows CE at school and we knew about the Imagine Cup competition, our studies include embedded systems and electronics, this is why we choose Embedded Development.

**TEAM HISTORY**
We are all students at ESIEA, Paris a Top French engineering school specializing in Information Technology and Electronics.

**TEAM EXPERIENCE**
We didn’t have much experience in Embedded Development before the competition. We followed a Windows CE course a few weeks before engaging. We really liked facing this great challenge.

**HIGHLIGHTS**
For now, the best part of the competition was the French finals in Paris. It was very exciting to be selected for the Worldwide Finals!

**GENESIS**
We were in contact with disabled people organizations and we noticed that urban areas still have many places not accessible to a standard electronic wheelchair. Existing solutions are sophisticated and expensive. We decided to take on the challenge of working on an affordable solution. A better integration for disabled people inspired our solution.

**CHALLENGES**
A difficult part in our project was the mechanical system because we are not specialized in mechanics. We also had to face the integration of an embedded computer in a existing wheelchair.

**FUTURE PLANS**
After the finals in Cairo we still have one year left in school before we get our engineering degrees. We plan to use this period to enhance our development and make field tests with disabled people organizations in France.

**MORE INFORMATION**
http://www.youtube.com/watch?v=4uMKOfGp_U
http://www.youtube.com/watch?v=H13xtmogj2k
TITLE OF PROJECT: DOST

PROJECT OVERVIEW
The solution being proposed DOST means "Friend" and it connects needed people to concerned people, organizations and government which contribute in global partnership without disturbing their regular schedule. The system consists of kiosks designed to cater the grants, information and assistance to the needed people. User centric design enabled kiosks provides fear less, secured, easy to use and interactive environment. Kiosks are customized to serve the regional requirements. All kiosks connected to web centric control centers to deliver the services. The concern bodies and organizations can monitor the transparency in the system. It connects the voice of needed people directly to the concern bodies and organizations to prevent corruption. It spread the spirit through local FM and SMS channels.

TECHNOLOGY/SOFTWARE USED
- Visual Studio 2005
- .NET Compact Framework 2.0
- DirectX
- SQL Server 2005 Developer Edition
- Photoshop
- Ebox 4300
- Visual Basic .NET

INSPIRATION
The Imagine Cup is the world’s premier technology competition. It is a platform for young technologists to showcase their ideas and solutions to a world stage. We were inspired when we attended a video presentation of the 2008 World finals and due to our mentor, Mr. Sanjay Bansal, who tirelessly mentored and guided us through the competition. Our original idea DOST could only be practically implemented through development of an embedded device so we choose the embedded development invitational.

TEAM HISTORY
Neha is a student from PDM college of engineering and Aman from Himalaya Public School. We both met at our mentor’s institute on some public occasion. As we both are from science background, so our interests focus obviously on technology which resulted in the composition of our team.

TEAM EXPERIENCE
Neha is novice to embedded development while Aman had developed many projects at school level and won many prizes.

HIGHLIGHTS
The long brainstorming sessions and the difficult process we went through extracting the best ideas has made us curious to achieve our goal. So far, the best part of the Imagine Cup has been the period of discussing ideas, arguing, working together and dealing with the new technologies and software.

GENESIS
This is our mentor’s idea. He works with many social organizations. He has 20 years of rich experience in the field of technology. When he is working for some social organization to impart education to poor, the idea to develop a versatile system to address many social problems came to his mind. He started developing a team of young innovative people and team IT WIZKIDS formed. We replaced our weekends and public holidays with time dedicated to make our dream project into a realistic model. We were inspired by the Millennium Development Goals: to eradicate extreme poverty and hunger, achieve universal primary education, promote gender equality and empower women, reduce child mortality, improve maternal health, combating HIV/AIDS, malaria, and other diseases and develop a global partnership for development.

CHALLENGES
Preparing for school exams along with this competition led to us sometimes having to choose one of them, we generally opted for Imagine Cup. Originally we were four members, after Round 1, two of member left without information. Our timeline got messed up. We rescheduled everything from top to bottom and finally we are able to make it.

FUTURE PLANS
We hope the Imagine Cup will serve as a springboard for us to commercialize our idea and solution. So while we plan to further our education after the competition, we hope to be able to do so while developing our idea further and attracting interest from commercial companies and investors.
Embedded Development

Pendekar Asyik

Team Members:
Ahmad Fauzi
Catur Apriono
Harry Nofrianz Prakasa
Ayudha Nandi Pradipta

Mentors:
Dr. Ir. Dodi Sudiana
M. Eng

TITLE OF PROJECT: Bahari

PROJECT OVERVIEW
We built a device to determine a location of fishing ground (location for catching fish). It will help poor fishermen to increase their income.

TECHNOLOGY/SOFTWARE USED
- Visual Studio 2005
- Windows CE 5.0
- Joomla 1.5.10
- Wampp, PHP, HTML

INSPIRATION
It's a great competition and we chose embedded development because is very interesting. It has a strong relationship with what each of us are currently studying.

TEAM HISTORY
We are student of Electrical Engineering University of Indonesia. We all have the same interests to help to develop our local fishermen community.

TEAM EXPERIENCE
We have developed our project through our work in university courses. For example: working on a microcontroller in a washing machine, traffic light projects, and video surveillance projects.

HIGHLIGHTS
A highlight has been receiving software development and embedded hardware for FREE. Besides that, we have had the chance to compete with some of the other best students in the world through the Imagine Cup 2009.

GENESIS
Our team inspiration is based on the fact that many people in Indonesia are still living well under the poverty line (based on the World Bank standard). Our solution helps to solve the first goal of the Millennium Development Goals: to eradicate extreme hunger and poverty.

CHALLENGES
A challenge has been adapting to new embedded technology environments like Visual Studio and Windows CE.

FUTURE PLANS
We plan to startup a new business as a consulting firm. Our focus will indeed be to serve the fishing technology and especially Indonesian fishermen.

MORE INFORMATION
http://www.noaa.gov
http://modis.gsfc.nasa.gov/
http://www.markroland.com/engineering/APT/
http://www.codeproject.com
TITLE OF PROJECT: The Electronic Maternal and Child Health Handbook

PROJECT OVERVIEW
The improvement of maternal health and the reduction of mortality rates for children under the age of five have been identified as current Millennium Development Goals. In order to achieve these critical Millennium Development Goals, we have developed an Electronic Maternal and Child Health Handbook. We suggest that this device be distributed in countries where maternal and under-five mortality rates are high.

TECHNOLOGY/SOFTWARE USED
• Windows Embedded CE 6.0
• .NET Compact Framework 3.5
• SQL Server Compact 3.5
• DirectX

INSPIRATION
We had been interested in the Embedded Development competition for some time.

TEAM HISTORY
We belong to the same laboratory.

TEAM EXPERIENCE
Nothing. This is first time.

HIGHLIGHTS
We don’t know. Perhaps the best is yet to come.

GENESIS
When we took a look at the Millennium Development Goals we thought that the embedded device can work to save children around the world.

CHALLENGES
Challenges we had included: calibration of the touch panel, capturing the image from the webcam, using DirectX, SQL CE and .NET Compact Framework.

FUTURE PLANS
We have no definite plan.
Wafree

Team Members:
Yoonji Shin
Kibum Kim
Youngbu Park

Mentor:
Sinsang Yu

TITLE OF PROJECT:  Sinsang Yu

PROJECT OVERVIEW
Our goal is to end world hunger by helping the people affected by famine to become self-sufficient for food by breeding insects (especially Coleoptera Lucanidae) in each household as substitute food. Instead of grain farming, insect-farming is a great option for areas where there's not much fertile land, water, nor manpower, and we have compared 176 insects and found that Coleoptera Lucanidae is the best insect to raise as a substitute food. However, insect breeding is not an easy task because insects are sensitive for sudden climatic changes, and insect raising requires skills and knowledge. No studies have been done, however, in captive breeding of large numbers of Lucanidae in Africa. Therefore, we have created an automatized embedded system that allow users with no experience in breeding Lucanidae or using computers to easily raise Lucanidae for food.

TECHNOLOGY/SOFTWARE USED
• XML Web service
• Microsoft SQL Server 2008
• Windows Server 2008
• IIS 7.0
• .NET Framework 3.5
• Silverlight
• Virtual Earth
• ASP.NET 2.0
• Windows CE 6.0

INSPIRATION
Our project started at the Imagine Cup 2006. The theme of the competition was “health” and our first version of solution won 1st place in high school division. After the competition, judges from Microsoft Imagine Cup gave us the courage to continue this project and the advice to enhance the solution. We have continued to develop our solution and we have received help and encouragement from so many people around the world. The solution we will present at the Worldwide Finals in Cairo is our fourth version and it was so natural to enter Imagine Cup again. Four years ago, the competition itself was the goal of the project. But by participating in Imagine Cup 2009, solving world hunger and giving true freedom for food for all is now our utmost mission. Also, we chose the Embedded Development competition because we believe a fully automatized embedded system will allow users with no experience in computer to raise Coleoptera Lucanidae for food.

TEAM HISTORY
Yoonji and Kibum first met at a software engineering academy, and Youngbu joined the team later. It’s quite interesting that all three of us go to different schools and lives in different regions of Korea. Our team members and mentor first met at “Shin-Do-Rim” subway station and discussed solutions for world hunger and started to work as a team.

TEAM EXPERIENCE
Yoonji focused on studying mathematics and algorithm, and Kibum majored in computer science and focused on studying Software Development. Both of them had only minimal experience in developing embedded systems. Youngbu had many previous experiences with Embedded Development. He majored in electronic engineering and has been active in the Robotics club and other clubs related to Embedded Development.

HIGHLIGHTS
Two years ago at an international competition, a judge gave Yoonji the name of Dr. Neese, a physician in Gabon. When she explained the project, he recruited other volunteers and raised Lucanidae in Africa. Three months later, he called. Excitedly, he shared that missionaries had baked cookies with Lucanidae for the children in Gabon and told her that the children loved the Lucanidae cookies and the first batch was gone before they set the basket on the table. Little kids’ smiles of satisfaction was payment enough for our thousands of hours of work and enough reason to continue this project.

GENESIS
We aim to solve the world hunger. We want to guarantee true freedom for food for all and we dream a world where no one has to worry if they will have food for tomorrow. To achieve this, we figured that we have to help the starving people to be self-sufficient for food.

CHALLENGES
After finding out that cell phones are more widely used than telephones (ground lines) in many areas of Africa, we decided to use cell phones to communicate between E-Box and the main server if there is no internet connection. To make this possible even for old and reused cell phones with only basic functions, we used the hands free port of cell phones and used Dual-tone multi-frequency (DTMF) signaling. This technology was new to us and even though it was quite challenging, we loved the opportunity to explore it.

FUTURE PLANS
The solution we will present at the Worldwide Finals in Cairo, Egypt, is not our final solution for this problem but one of the series of solutions we have developed and will be developing to solve this problem. At the Worldwide Finals in Egypt, we want to listen to feedback and advice not only from the judges but also from peer engineers from all around the world, and develop a better solution for this problem.

MORE INFORMATION
www.wafree.pe.kr
TITLE OF PROJECT: Hygea

PROJECT OVERVIEW
We are creating a telemedicine device for everyone - with three initial applications. This system will include electrotherapy for the treatment of several diseases, an electromyograph (EMG) and an electrocardiograph (ECG) for the analysis of the therapy performance and health state. The application will include a chat window for the patient and/or nurse in one place to see the medical specialist in other place.

TECHNOLOGY/SOFTWARE USED
• Ebox-4300
• Myoelectric and Heart Signal Acquisition Circuit Cards
• Electrical stimulation circuit (designed & implemented by us)
• Visual Studio 2005
• Windows CE 6.0

INSPIRATION
The main objective of the project is to help as many people as we can by providing quality medical attention. We entered this prestigious competition to corroborate the project's viability and potential in an international environment. We've chosen this competition since we believe that based on the technical requirements, an embedded solution is the proper approach.

TEAM HISTORY
We met at school. We found out we are all a bunch of geeks who spend part of their vacations trying to make a change.

TEAM EXPERIENCE
A previous version of the system was built using microcontrollers in order to achieve real time processing. To achieve this objective we merged higher level software.

HIGHLIGHTS
A highlight was discovering that indeed our project is internationally valuable.

GENESIS
We're trying to solve the sixth Millennium Development Goal: Combat HIV/AIDS, malaria and other diseases. We've been involved in medical-engineering projects for two years now, and there are a lot of inequalities we've seen in this area. Medical devices and medicine can be expensive and a lot of people die due the lack of opportune medical attention. We're trying to cooperate in this goal with an alternative treatment for AIDS and diseases which require pain management.

CHALLENGES
Besides the time scheduling, one of the hardest things was to translate the medical information and parameters to engineering concepts that we could understand. Besides, the convergence of technologies is really hard in an embedded system due the variety of sw/hw technologies used. Synchronizing and coupling the different systems as part of one whole solution is also a challenging task.

FUTURE PLANS
Yes, we'll try to make this project a real world solution. First we must solve all the technological issues, and then think about the business model that best fits for the patients and for us.

MORE INFORMATION
Ivan Figueroa's personal blog:   http://lamofaacerba.blogspot.com
Juan Pablo's Enterprise:   http://www.teporingo.com/
**Kréjzi Dzepetto**

**Team Members:**
- Jakub Barszczewski
- Radosław Brandt

**Mentor:**
- Dr. Janusz Pochmara

**TITLE OF PROJECT:** EcoSocket

**PROJECT OVERVIEW**

EcoSocket is an automated system designed to measure electrical energy usage in many household points and visualize the results. It helps in educating people of where they waste energy and how much it costs.

**TECHNOLOGY/SOFTWARE USED**

**Technology Used:**
- EcoSocket sensor containing an ATmega32 Microcontroller, ADE7755 Energy Measurement IC, Real-Time Clock Unit and 433MHz Transmitter

**Software Used:**
- Windows CE
- .NET Framework 2.0 Compact
- SQL Server
- Padarn Web Server

**INSPIRATION**

We were inspired by many organizations that try to show people how they can help save the environment every day. We think that our project will show people that saving energy is one of the most important ways to help our planet.

**TEAM HISTORY**

We are students of Poznan University of Technology, in Poland. We are also members of S.K.I.M. study circle, which concentrates on microcontroller engineering. It's our second time taking part in the Imagine Cup. Our first time, in 2008, we advanced to the 2nd round, with the same team squad members.

**TEAM EXPERIENCE**

We made a metronome for helping in autistic children therapy, and created a system which controls traffic lights using a PLC controller.

**HIGHLIGHTS**

One highlight was definitely the Imagine Cup 2008 Embedded Development competition. We advanced to Round 2 then as well.

**GENESIS**

We noticed that both our electrical bills and energy use were on the rise. We decided to take the steps to save energy, but we do not know where we are wasting the largest amounts of energy. That fact has inspired us to create a system that shows it in an approachable form.

**CHALLENGES**

We had not worked with radio transmission before, so we had to learn everything about it from scratch. Also making three different platforms (PC, e-Box, Microcontroller) cooperate was kind of a challenge for us.

**FUTURE PLANS**

We want to graduate from a university and also improve our EcoSocket, and start to work on new projects.
TITLE OF PROJECT: Intelligent Wireless Distributed System for Power Consumption Monitoring and Analysis

PROJECT OVERVIEW
This project addresses the problem of energy wastes through irresponsible usage of computers or mobile devices, as well as wastes encouraged by companies or firms that do not implement any kind of power awareness plans. It is meant to help increase the power usage efficiency in the locations it is installed, by completing an extensive survey of power usage patterns over a short period, and then presenting clear expressive power consumption results of the monitored location, together with recommendations of action plans that would save energy if applied.

TECHNOLOGY/SOFTWARE USED
• Windows Embedded CE 6.0
• Windows Communication Foundation
• ASP.NET MVC
• XBee Networking

INSPIRATION
Last year’s experience at Imagine Cup made us eager to try harder this year. We chose embedded development from all the competitions, because this domain interests us the most.

TEAM HISTORY
All members are students at the same faculty and share the same interests in embedded development.

TEAM EXPERIENCE
We had the experience of participating in Imagine Cup 2008, where we made it through to the semi-finals. Plus, each member developed other projects that involved or consisted of embedded development elements.

HIGHLIGHTS
Seeing our skills and knowledge put to practice. The satisfaction of seeing good results after all the effort we put into the solution. Receiving the e-Box was a highlight as well.

GENESIS
The solution addresses the seventh Millennium Development Goal proposed by UN, namely target 7A which concentrates on implementing environment sustainability principles and reversing the loss of natural resources. By limiting the waste of energy in household, industrial and commercial users, we believe a step towards lower carbon emissions is taken. Also this limiting allows for a more efficient power usage, even if the consume of electrical energy world-wide does not decreases, at least more is accomplished using the same amount of energy.

CHALLENGES
Learning to use new technologies correctly and efficiently were challenges.

FUTURE PLANS
We plan to use the gathered experience in completing other projects. We could launch a business based on our solution, if the opportunity presents itself.
PROJECT OVERVIEW

It is clear that the home entertainment industry is experiencing a significant growth in the number of consumer devices. While the shift towards mobility for personal entertainment devices is becoming the big trend, home media infrastructure remains fixed. So we have two major problems here: wires (fixed media infrastructure) and multiple media sources (mobile PCs, media players, smart phones, and so on). Our goal is to fill this gap by providing an easy-to-use product that will allow users to easily play media content from mobile devices using the fixed home infrastructure peripherals. Based on the estimate that about 1,000,000 customers worldwide are already using alternative hardware solutions for making the audio infrastructure wireless, we believe that our product will become more scalable and, therefore, widely distributed solution. Our idea is to attach each pair or set of speakers to a device, that receives an audio signal from a PC via local wireless network. Each device receives the sound from one or several PCs, performs stream encoding into correct format and audio mixing if necessary and then streams it away to the speakers. This absolutely eliminates undesirable wires and solves the problem of using one set of speakers for multiple devices. No plugging/unplugging actions are required. Each set of speakers is equally accessible by every computer in the wireless network. The feature our usability research test participants liked the most was “following sound”. With this feature turned on the sound is following the user’s portable device thus always streaming to the speakers located most close to the user.

TECHNOLOGY/SOFTWARE USED

- Windows Audio Session API
- WaveForm API
- .NET Framework 3.5
- Microsoft Windows Embedded CE 6.0 R2
- Microsoft Visual Studio 2008
- Microsoft DirectShow
- .NET CompactShow 3.5
- Microsoft Remote Tools
- Microsoft Platform Builder 6.0
- 32feet.NET

INSPIRATION

Yaroslav always had a problem when listening to music from his laptop computer while sitting on the sofa via speakers on the desk. Once he tripped over the cable that was connecting speakers and laptop, making the speakers to fall down from the table and crash. That’s how the idea of wireless sound appeared. Soon after, we discussed means to solve the problem and came to the idea of attaching an embedded device to speakers.

TEAM HISTORY

We’ve met each other in classes at the University. Our shared interest to IT brought us to work on several projects together, with very productive results.

HIGHLIGHTS

We experienced most satisfaction with our work on May, 6th at 5 AM when the sound started to follow our Bluetooth devices from eBox to Windows Mobile-based device.

GENESIS

Today, we are working not at our desks, but in work environments. With a mobility gained by computing devices during the last decades, we are no longer tied into a “desktop” computer paradigm. Our project is aimed to help to develop and secure a technological background for the new generation of personal ecosystems of interconnected computing devices fitting transparently into home or office, work or entertainment environments. Some may call this “ubiquitous computing”.

CHALLENGES

1. Decreasing the sound playback latency. This problem could not be properly localized as nearly all of our modules were influencing latency, so we had to work on all levels.
2. Fighting Bluetooth signal noise. The Bluetooth signal strength is very unstable with lots of outliers. This is a menace to following sound (the initial volume changes were very rough and abrupt). We had to work hard to make it more or less smooth.
3. We had to unify the formats being played on eBox, for some formats could not be played. That was unexpected in the initial project vision. Unifying different audio types was not at all easy with high requirements to encoding latency.

FUTURE PLANS

As a matter of fact, we do. While solutions currently available on the market today require advanced IT professional skills for deployment and configuration, our product has a high market potential. According to our estimates, our solution will help millions of users all over the world.
TITLE OF PROJECT: Wireless Enabled Patient-Controlled Analgesia System

PROJECT OVERVIEW
The goals of our Imagine Cup entry are to enhance epidural analgesia safety and effectiveness while reducing the potential side effects, as well as, to make epidural analgesia more accessible to women by reducing the technical barriers for safe administration.

TECHNOLOGY/SOFTWARE USED
• Windows CE Embedded 6.0 R2
• .NET Compact Framework
• Windows Presentation Foundation
• Windows Communications Foundation
• Windows Workflow Foundation
• Microsoft SQL Server

INSPIRATION
We were inspired by the Millennium Development Goals and the opportunity offered by the Imagine Cup to benchmark our ideas against equally passionate young technologist around the world. Through the experience, we hope to be able to further improve and refine our solution.

TEAM HISTORY
We knew each other before the competition began.

TEAM EXPERIENCE
We didn't have much experience before, but Imagine Cup provides us opportunities to learn about embedded hardware, embedded software, and embedded technology.

HIGHLIGHTS
The best part of the competition has been working closely with each other, getting to know each other's strengths and weakness, bringing out the best of everyone in the team and also learning more about Microsoft technologies. The Imagine Cup experience has been a unique and life changing experience. We are sure that the friendships and camaraderie we have forged, the knowledge we have learned, will extend well after the competition is over.

GENESIS
We were inspired by the goals of the Imagine Cup to make a difference in people's lives. The Millennium Development Goal we sought to address was to Improve Maternal Health. We worked closely with Singapore's KK Women's and Children's Hospital to develop and refine our intelligent infusion pump project for epidural analgesia. Embedded technology potentially allows us to enhance the robustness and reliability of our system, whilst at the same time reduce cost. This will allow our solution to impact more people even more deeply. For this reason we chose to enter the Embedded Category of the competition.

CHALLENGES
The key technological challenges include deciphering the complex infusion pump communications and control protocols. In addition, as patient lives were at stake, we had to thoroughly debug and test to ensure the reliability and repeatability of our system. Fortunately, we were assisted by the excellent debugging and unit test tools built into Visual Studio and Visual Studio Team System.

FUTURE PLANS
We will further develop and refine our system in collaboration with KK Women's and Children's Hospital.

MORE INFORMATION
http://www.nyp.edu.sg/SEG/seg_industryservices_intelligent_patient.html
http://www3.interscience.wiley.com/journal/118618976/abstract?CRETRY=1&SRETRY=0
http://journals.lww.com/coanesthesiology/Abstract/2008/06000/Maintaining_labour_epidural_analgesia,_what_is_the.3.aspx
http://www.anesthesiaanalgesia.org/cgi/content/abstract/107/6/1968
SAS-EN
Team Members:
Sanjaya Ratnayake
Ruvindee Rupasinghe
Amila Sajayahan
Anuruddha Ranatunga
Mentor:
Professor Asoka S. Karunananda

TITLE OF PROJECT:  Self-Controlling Intelligent Plant

PROJECT OVERVIEW
One of the most severe problems faced by the human kind is hunger. Therefore the primary solution to solve this problem is increasing the food production. But in the world there are not enough lands for agriculture. So if we can find a soil less agriculture method we can tremendously increase food production. Hydroponics is a method of soil less agriculture. Thus SAS_EN combines the advanced information technology with agricultural technologies to enhance the food production as well as to enable a sustainable environment by making hydroponics plant growth more convenient for the user. SAS_EN controls the EC, pH levels of the hydroponic environment while keeping the other required parameters such as heat, light, ventilation in appropriate conditions. Furthermore, the user can view the conditions of the plantation through the web. Thus we have shown that the self controlling hydroponic environment is able to produce more food production with minimum interaction with the user.

TECHNOLOGY/SOFTWARE USED
• Windows Embedded CE
• C#.NET

TEAM EXPERIENCE
At the beginning we did not have any idea on developing the embedded systems with the e-box. But we have learned the embedded systems as a subject in our university. Therefore through the internet blogs and forums we were able to develop our system.

HIGHLIGHTS
Competing in our Embedded Development competition has been the best part.

GENESIS
We identified hunger as the most severe problem faced by mankind. Therefore we thought it would be helpful for the community to show how the technology can provide solutions to solving the hunger problem.

FUTURE PLANS
We are doing the project as research. Therefore we hope to do more research and improve the system.
SEEDS

Team Members:
Pei-Yun Lin
Chien-Ming Cheng
Kuan-Chung Ting
An-Shun Chang

Mentor:
Professor Shiao-Li Tsao

TITLE OF PROJECT: Solar Energy-based Embedded Distributed Server farm (SEEDS)

PROJECT OVERVIEW
Solar Energy-based Embedded Distributed Server farm (SEEDS) utilizes peer-to-peer technologies to construct a solar-powered server cluster and/or a solar-powered cache system for a server cluster. The proposed system significantly reduces the power consumption of IT servers without sacrificing the reliability and availability of the IT services.

TECHNOLOGY/SOFTWARE USED
We propose the pure solar-powered embedded system, called SEEDS node, to serve as the front-end cache for an IT server. The proposed system can reduce the workload and power consumption of the server without sacrificing its reliability. Moreover, SEEDS nodes in different geographical locations could link together using peer-to-peer technology and provide a more reliable cache system since the sun may cover and power part of the SEEDS nodes.

INSPIRATION
We are a group of students who are interested in embedded system research. We are seeking opportunities to solve challenging problems for human beings using computer technologies. The Microsoft Imagine Cup serves an excellent platform for us to exchange creative ideas and solutions, and also provides a great opportunity for us to demonstrate our ideas and contribute ourselves to the community and the world.

TEAM HISTORY
All of us are from the same research lab, i.e. the Broadband Radio Access Software and System Lab of Department of Computer Science, National Chiao Tung University, Taiwan. We have worked on the SEEDS project for more than 2 years. This project was also selected into top 200 teams in Microsoft Imagine Cup 2008.

TEAM EXPERIENCE
We have learned the embedded system development and technologies from graduate/undergraduate courses in our university and our own research projects in the lab.

HIGHLIGHTS
Solving challenging problems and contributing ourselves to the community and world have been the highlights. We also have learned a lot from our passionate discussions and team work.

GENESIS
The Millennium Development Goal we target is “ensure environmental sustainability”. By using green power, our system could reduce power consumption of conventional IT service.

CHALLENGES
The project involves a number of non-computer technologies and issues such as solar power, battery control and management, etc. which are out of our domain knowledge. We learn a lot from this interdisciplinary project and embedded system integration. Also, our system requires a large scale analysis so that the real energy saving could be precisely evaluated. We have developed a simulator in order to evaluate the proposed idea and convince people.

FUTURE PLANS
We will keep improving the proposed SEEDS system after the Worldwide Finals. We are seeking for technology transfers and/or possible cooperation with embedded system companies. We have a plan to launch a new business of the proposed SEEDS solution for green IT services.

MORE INFORMATION
http://brass.cs.nctu.edu.tw/SEEDS
**AST**

Team Members:
Levni Can Özyürüyen
Filiz Bali
Mehmet Törün
Umut Erkal

**TITLE OF PROJECT:** Project ProFarming

**PROJECT OVERVIEW**
ProFarming is a precision farming project which upgrades thousands of currently working farming machines to an efficient state with a very low cost of ownership.

**TECHNOLOGY/SOFTWARE USED**
- Windows Embedded CE
- .NET Compact Framework
- Microsoft SQL Server CE
- GPS
- Text to Speech
- In-Circuit Debugging
- Microsoft Visual Studio
- MikroC Pro for PIC
- ISIS Proteus Professional
- SolidWorks
- PCB Wizard Pro

**INSPIRATION**
The theme of this year was a complete and perfect match with our project! So we applied to the competition. Since we are integrating hardware with software, the embedded development competition was the right choice.

**TEAM HISTORY**
We were sharing the same desk in our high school years. Then through our universities we became separated. But our minds... never!

**TEAM EXPERIENCE**
We were just wondering about what is embedded system!

**HIGHLIGHTS**
The opportunity of presenting our invention to the world has always been our best motivation.

**GENESIS**
With the inspiration of “reversing the loss of environmental resources”, we have imagined a more inhabitable place for our next generations. Then we worked together to make our dream a reality.

**CHALLENGES**
The only challenge we encountered was the time limitation, since we are located in different cities.

**FUTURE PLANS**
After completing the BETA phase, the Project ProFarming will be ready for mass producing. We will demonstrate the system on the fairs. This is just a beginning of our projects!
TITLE OF PROJECT: MOBILE e-HEALTH SYSTEM

PROJECT OVERVIEW
We would like to propose a Mobile e-Health System that allows for making good use of the newest technologies for health monitoring and sickness prediction, obtaining reliable vital parameters and patient location, saving that data to the patient’s permanent data record in database of medical center, and receiving remote medical consultation. The universality of this given system allows one to monitor several patients in real-time using e-Health modules connected with eBox (the server of our wireless system) simultaneously.

TECHNOLOGY/SOFTWARE USED
- Microsoft Windows Embedded CE 6.0 R2
- Multichannel VoIP technologies
- Speech API
- Wave API
- DirectShow Video capturing
- CEDB database
- ICDP eBox4300 computing device
- Stallmann Bluetooth modules
- Wi-Fi or 3G modules
- GPS
- ASP.NET
- Infra Red sensors for blood analyzing
- Series of medical sensors
- Embedded printers
- Analog Devices chips
- ASP.NET
- Silverlight
- Microsoft Visual Studio 2005
- ATMEL ARM7TDMI ARM Thumb Processor
- Windows Embedded CE 6.0 R2 Platform Builder
- MLX90614 Family Dual Zone Infra Red Thermometer
- Blocks of analog preprocessing of raw medical information

INSPIRATION
We chose the Embedded Development competition as the best opportunity for those who would like to reconcile their passion for electronics and software.

TEAM HISTORY
Our team consists of two students, two postgraduate students and a mentor. We are young, energetic, active people who are eager to explore new technology. We are from the Kharkiv National University of Radio Electronics. Our interests focus obviously on technology: computer science and electronics. We decided on becoming a team and being trailblazers with our ideas.

TEAM EXPERIENCE
Our team members had experience with embedded design in device development projects. Two of us were members of the previous top 6 teams selected for Imagine CUP 2008 Embedded Development finals. Makovetskyi Sergii has an extensive experience of building, debugging OS images, developing applications for Windows Embedded CE 6.0 and deploying them to ICDP eBox4300 and eBox2300, designing new hardware based on ARM and other firmware microcontrollers for commercial usage. Dudka Oleksandra has an experience in web technologies (.NET Framework, XML and other). Thus, our team is a great blend to handle the hardware and software aspects of the system.

HIGHLIGHTS
The best moment to date was when we saw our project prototype in work.

CHALLENGES
During one month we tried to run a webcam on Windows Embedded CE. We could not find UVC Web cam to support existing drivers. Only a cam licensed by Microsoft became the solution of our problem!

FUTURE PLANS
We hope the Imagine Cup will serve as a springboard for us to commercialize our ideas and solution. So while most of us plan to further our education after the competition, we hope to be able doing so while concomitantly developing our idea further and attracting interest from commercial companies and investors. We plan to improve the current working prototype and make it commercial product.

MORE INFORMATION
http://www.intellectronics.ho.ua/
TITLE OF PROJECT: InterHome

PROJECT OVERVIEW
InterHome is an energy saving intelligent home automation system designed to predict our behaviour and eradicate wasted energy within the home.

TECHNOLOGY/SOFTWARE USED
- SQL Server 2008
- ASMX Web Services
- Internet Information Services 7
- Silverlight
- .NET Framework 3.5
- .NET Compact Framework
- .NET Micro Framework 3.5
- Windows CE 6.0 R2
- Windows Mobile 6.1 Device Solutions
- Tahoe II ICOP eBox 4300

INSPIRATION
Our mentor, Johann showed us a video of the previous finals in Paris and introduced us to the concept. We decided that a home automation system would be an interesting and fun project to work on which also tied in with one of the Millennium Development Goals.

TEAM EXPERIENCE
Ellis is proficient in PHP/APACHE/MYSQL and has since been learning and adopting the various .NET platforms. Carol has worked with .NET platforms in the past and has a good understanding on the .NET Compact Framework.

HIGHLIGHTS
The highlight is indeed going to Cairo to compete!

GENESIS
Our idea is inspired by the Millennium Development Goal: Ensure Environmental Sustainability. The idea takes existing home automation to the next level by incorporating learning abilities into the system. By leveraging the rapid development cycle using Visual Studio, we intend to develop a simple and yet modular system that will enable ‘InterHome’ to be developed with the flexibility of incorporating new hardware devices. The system should be easy to use and transparently adapts to the user’s lifestyle while saving energy and indirectly helping to reduce the amount of carbon emitted by each household.

CHALLENGES
Challenges include: Integration of different .NET platforms and synchronization of data between different hardware/software devices, as well as foreseeable engagement with local councils and housing authorities.

FUTURE PLANS
We plan to continue an ongoing engagement with local councils and housing authorities and with home automation companies. We want to incorporate medical monitoring devices and incorporate the project for teaching .NET and electronics in higher education.

MORE INFORMATION
http://interhome.herts.ac.uk
TITLE OF PROJECT: ASHA

PROJECT OVERVIEW
The goal of this OSU team is to design a Reciprocative System for Health Automation (ASHA), which is an electronically assisted medicine vending machine for addressing the problems faced by people living in remote areas with little or no medical assistance.

TECHNOLOGY/SOFTWARE USED
• VC# and Embedded C on a customized Windows CE 6.0 operating system image

INSPIRATION
Coming from a developing nation like India, all the team members could immediately connect with the Millennium Development Goals and could understand the sense of urgency to achieve them. Imagine Cup provides students with one of a kind opportunity to actually channel and materialize their ideas into tangible products. Not only does the competition provide the students with the necessary resources to conceive their ideas, but it also provides training via entrepreneurship workshops and the like. The team members have had prior experience with working on projects with embedded systems. Moreover, for the problem ASHA is designed to address, the team needed the product to be stand alone, lightweight and one which could be installed easily at several locations and would be inexpensive with the necessary processor capabilities to perform major decisions (like diagnosis) and interface with several on board sensors. An embedded solution thus became an obvious choice to meet the specific needs of the product.

TEAM HISTORY
The team members have been fellow college students at Oklahoma State University for two years and have shared some of their coursework. When one of the team members read about the Microsoft Imagine Cup, he set about forming a team. The varied skill set of the team members fit well and formed an all round team for the competition. Three of the team members are Electrical majors; one is a Mechanical major and a Control Systems major.

TEAM EXPERIENCE
The team members have a varied set of experience in areas like programming (embedded C, VB, VC++, Matlab, Java), Mechatronics (microcontrollers, dsp processors, sensors, actuators) and signal processing (speech processing)

HIGHLIGHTS
The opportunity Microsoft provided us to attend the Software US Finals. We got to attend entrepreneurial workshops and got valuable suggestions and also got to understand the importance of the financial aspects of the venture. Also the sleepless nights we spent working as a team has helped us to come up with a better product and in turn improved our skill sets and temperament.

GENESIS
The team designed and built a prototype of the vending machine. Initially, the team created individual modules (like speech, RFID, motors and actuators etc.) These were built and tested. Later on these modules were integrated on a new Operating System image and tested for functionality. To combat HIV/AIDS, Malaria and other diseases was the Millennium Development Goal which inspired us to come up with this product. Our product ensures effective medicine distribution to under developed countries at subsidized rates.

CHALLENGES
Creating a new operating system from scratch without any prior experience was the biggest challenge. Being masters students, managing and dividing time between research, academics and the competition was also a challenge.

FUTURE PLANS
Our primary goal is to address the health care disparity in remote rural areas when compared to cities. We now have a prototype which has basic diagnostic capabilities. We intend to diversify the diagnostic capabilities first. Subsequently, we intend to carry out a pilot test on a village before we could start on our own venture and for this we intend to license our technology to vending machine manufacturers and in turn convince the pharmacy companies to buy them to start their own services, thus in turn benefiting all.

MORE INFORMATION
http://www.youtube.com/watch?v=6dlWauMeUC8
We put the Game Development teams to the ultimate test: create a game that is not only entertaining but also illustrates the Imagine Cup theme "Imagine a world where technology helps solve the toughest problems facing us today."

The finalist teams, profiled on the following pages, built their games from scratch using both Microsoft’s XNA Game Studio 3.0 and Visual Studio as their starting point. The Game Development competition was once again a terrific opportunity for learning and advancement towards an important step in these team’s budding careers either as game developers or as entrepreneurs in the game business.
NomNom Productions
Team Members:
Rob De Reycke
Jeroen Tavernier
Leslie Van den Broeck
Jerry Verhoeven
Mentor:
Mike Ptacek

TITLE OF PROJECT: Shift

PROJECT OVERVIEW
With Shift, we want to address a few of the millennium goals during the game without disturbing or frightening the player. Our main focus is poverty and hunger. Shift remains a fascinating puzzle game but in addition, the player will find a lot of references to the urgency of the millennium problems. Our main focus with Shift is to create awareness amongst players.

TECHNOLOGY/SOFTWARE USED
• Autodesk 3DS Max
• Visual Studio 2008 & XNA 3
• DPEngine (permitted by Timothy Vanherberghen)

INSPIRATION
We were able to participate in the Imagine Cup competition as part of our Integration module at the university. The cool thing about entering the Game Development invitational is competing on a worldwide scale in addition to getting good grades. The Game Development competition is moist closely related to our work as students of Digital Arts and Entertainment.

TEAM HISTORY
Jeroen and Jerry reside in the same building. Leslie, Jeroen and Jerry were classmates since the first year. NomNom was complete when Jeroen asked Rob to join the team and after an endless amount of laughter and crazy ideas, we started working on Shift.

TEAM EXPERIENCE
We are all second year Digital Arts and Entertainment students. None of us had any previous experiences with game development, but we all had interests in art and programming.

HIGHLIGHTS
Competing! Even among the three remaining teams at school. We also have enjoyed working hard to do better. Late night game development also has its charms. Moving on to the second round gave us a huge boost! The best part is getting to the finals though!

GENESIS
We spent quite some time brainstorming about what would be fun and still fit the profile of the Imagine Cup theme. We chose hunger and poverty as our Millennium Goal. We wanted to make players aware it is not easy to help large groups of people who are in need, but without putting too much emphasis on it. Players tend to shy away from too serious games. We chose a puzzle game to appeal to a larger audience.

CHALLENGES
The most gruesome challenge we all faced was to set our priorities, to lose sleep, to bear each other’s insanity, and most of all: to have the courage to keep going. On a technical level, we were challenged by a bigger project, a larger code base and a visual style that had to be appealing and uniform throughout the game.

FUTURE PLANS
If Shift gets good ratings, we will develop it some more, make additional levels and add some more game play elements. Then hopefully, we can publish it on XBox Live. We’re sure it will look good on our portfolio. A new business is a possibility. We’ll see.

MORE INFORMATION
http://www.shiftgame.net
TITLE OF PROJECT: Balanced

PROJECT OVERVIEW
Balanced: your chance to play god... Your goal is to help mankind, which keeps destroying the equilibrium of its own planet. It's time to build the unimaginable! Construct buildings like never seen before! Develop new technologies and use them to prevent possible disasters. And most important, by managing the four balance meters (food, energy, nature and health), you must keep the planet in equilibrium.

Natural disasters, like the ones we face today, have to be approached in an original and unique way. If you can manage all these factors in this RTS game and make the earth livable again, continent by continent, you'll save the planet for future generations. Balanced is about "edutainment" and awareness. Its aim is to educate players about the problems we are facing today, while encouraging outside the box thinking to solve them. The four indicators (food, energy, nature and health) will guide you along your path of helping the people of the planet you are playing on.

TECHNOLOGY/SOFTWARE USED
• Microsoft Visual Studio 2008
• Microsoft XNA Game Studio 3.0
• Microsoft Windows Vista
• Microsoft Xbox 360
• Bloom Postprocess
• Skinning Pipeline
• XML Particle System
• Autodesk 3D Studio Max 2008
• Adobe Photoshop CS3 / CS4

INSPIRATION
We chose to compete in the Game Development competition of the Imagine Cup because we intend to become game developers, and this competition will improve our skills.
LEVV It

Team Members:
Edgar Figueiredo Neto
Luciano Jose Firmo Junior
Victor Rafael Nascimento dos Santos
Vinacius Ottoni Borges de Figueiredo

Mentor:
Diogo Romero Burgos do Nascimento

TITLE OF PROJECT: Choice

PROJECT OVERVIEW
Choice is a game that brings together the better of two universes: the fun of arcade games and the challenge of strategy games. The result is a fun and addicting game that allows the player to change the world with teamwork and good decisions. It’s an exciting party game for four players, and the team members have already become addicted. We’ve been playing it a lot during our free time. Hopefully, by playing the game, people will realize, such as we did, that teamwork and smart choices can make a lot of difference to change the world outside of the screen as well.

TECHNOLOGY/SOFTWARE USED
• Visual Studio 2008
• XNA Game Studio 3.0

INSPIRATION
Being pro-active students, Imagine Cup is a part of our culture, and being on the worldwide finals has always been a dream for all of us. Though it’s a very challenging competition, we chose Game Development because it was the perfect excuse for doing what we love. We’re all passionate about games. This was the best way for us to combine work and fun.

TEAM HISTORY
The four of us come from four different universities. We were all members of the .NET Cells, and the group was formed in a .NET Cell reunion last year. Though from different institutions we all had one dream, and we’ve been working really hard to pursue it since.

TEAM EXPERIENCE
When the team was formed, Luciano had been studying XNA for quite a while and was working for a local game studio in Recife. Edgar was also studying XNA and was in the 2nd semester on his Masters degree on musical processing applied to games. Other than that, the team members had no further experience with games, besides playing them.

HIGHLIGHTS
A landmark for our team was participating in the National Microsoft XNA Game Development Competition: 'XNA Challenge' and then winning second place. We were working really hard, and the silver medal has made us analyze our team structure and the weak points of our game. From then on, we worked twice as hard and had practically no rest. We constantly reviewed all aspects of our project to make it worthy of the Worldwide Finals. A project that demands this kind of dedication is a unique opportunity to test your limits and grow both personally and professionally.

GENESIS
We didn’t want to limit our game to just one Millennium Development Goal. We wanted it to be fun as well as a tool for developing the players’ global consciousness about the problems our world faces today. To make a game with this vision to still be fun and addictive was a huge challenge in game design. We knew that we needed a target-audience for our game and that it needed to appeal to them. So we carried out a market research strategy with our target audience. This helped us get to know, for instance, what their favorite game genres are and what they liked most in our game. With that data in hand, we started the game design process trying to incorporate what we’ve learned throughout the research.

CHALLENGES
Game Design was, without a doubt, the most challenging aspect of our project. Challenging and entertaining the player while teaching them about our world’s problems is very difficult. To find this balance, we incorporated a lot of symbolism. This helps the player understand that teamwork and partnerships can help save the world without having to “explicitly think” about that while playing. Factors such as immersion and replay value were also considered and incorporated into game play.

FUTURE PLANS
We have definitely been thinking about opening our own game studio.

MORE INFORMATION
Edgar’s blog: http://edgarfigueiredo.wordpress.com
Victor’s online portfolio: http://www.victorafael.com
Sharp Games (Brazilian XNA Portal): http://www.sharpgames.net
**TITLE OF PROJECT:** Defile Of Eden

**PROJECT OVERVIEW**
In this multi-player game (bots coming soon!), two teams compete against each other in order to change the environment to their own style. One team, the "Defilers" represents the people who do not care about the environment, they try to change the landscape to be ugly and polluted. This occurs slowly over time as they start to win. They defile the land by destroying the Defenders and their trees, and by keeping their oil refineries healthy. The Defenders represent the people who care about the environment and must attempt to keep the land pure by protecting the earth from the Defilers. This is achieved by destroying the Defilers, their oil refineries and healing the trees. Each team has unique characteristics relevant to their team's role, and each has their own weapons and characteristics. The central goal of this game is to allow users to have fun while learning how they can improve the environment. Relevant environmental tips are displayed for each game and the game helps people see the consequences of their actions.

**TECHNOLOGY/SOFTWARE USED**
- C#
- .NET 3.5
- Visual Studio 2008
- XNA 3.0
- Microsoft Paint
- .NET Movie Maker FL Studio

**INSPIRATION**
We were inspired by the problems of today's society and what we could do to achieve change with the right tools and knowledge. We are driven to solve these "tough" problems. We chose Game Development as it allows us to tackle the world's toughest problems and to encourage learning while still providing an element of fun. Developing a game also allows us to demonstrate our skills and abilities.

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**TEAM HISTORY**
Bournemouth University Unix Group v2. We found we all had a passion for programming.

**TEAM EXPERIENCE**
We created a multi-player OpenGL game in C++ but because we had no 3D artists, we did not continue development.

**HIGHLIGHTS**
Getting 54 beta testers logged in and testing the multiplayer game was the highlight for us.

**GENESIS**
The Millennium Development Goal of sustainability inspired our work. Developing programming that demonstrates changing environments, including graphic weather effects demonstrate what can happen to the planet when balance is not kept.

**CHALLENGES**
Time management skills were our greatest challenges, especially prioritizing time to study for exams while still achieving development milestones.

**FUTURE PLANS**
We are confident that the skills obtained from this project will benefit us in the long term when we form a business (in which we are very interested).

**MORE INFORMATION**
http://www.sanguinelabs.co.uk (under construction)
New World Africa

GENESIS
Our first prototype was designed using a fair bit of caffeine and a big white board. We tried our hardest to combine as many of the millennium goals as we could into the same project. When we finished the prototype, we took a step back, took all the good ideas from it, and ran from there.

CHALLENGES
We were invited to Boston right in the middle of our finals in school, so it was very difficult for us to get a presentable prototype ready for that event while studying for and rescheduling our finals.

FUTURE PLANS
We hope to put our game out on Xbox Live, and we intend to continue the development of the underlying engine that we wrote for the project.

TEAM MEMBERS:
Nick Klingensmith
Danny Helms
Mentor:
Farhad Javidi

TECHNOLOGY/SOFTWARE USED
• C#/XNA
• Blender
• Adobe Photoshop CS4
• Visual Studio 2008

INSPIRATION
Our local Academic Evangelist, Cy Khormae, told us about the competition, and so we jumped at this great opportunity.

TEAM HISTORY
We were both in a couple of game programming classes together, and worked together on a team for the Global Game Jam.

TEAM EXPERIENCE
We both have been developing games since we were pretty young, and we recently attended classes in the Simulation and Game Development program at CPCC.

HIGHLIGHTS
We were invited to Boston for a different Imagine Cup competition. This was really an amazing event and gave us a lot of insight.
TITLE OF PROJECT: Alternex

PROJECT OVERVIEW
Alternex is a "hardcore educational" game about the development and deployment of alternative energy strategies. By modeling the systems behind energy policy, the game encodes its educational points in the game play while preserving the fun factor.

TECHNOLOGY/SOFTWARE USED
- Microsoft Visual
- C# Express 2008
- XNA Game Studio 3.0
- GNU Image Manipulation Program
- Audacity

INSPIRATION
I’ve always been interested in Game Development, and XNA had proven to be an easy and effective tool in my previous projects. When I heard about the Imagine Cup, it seemed like a great opportunity!

TEAM HISTORY
I am a team of one...

TEAM EXPERIENCE
I had made a few games and game prototypes using XNA before, and I’ve been informally studying game design for years. Still, Alternex is my biggest project yet.

HIGHLIGHTS
The initial stage of planning a game, describing its systems, getting a sense for the dynamics, is very fun for me. Alternex was made on a pretty difficult time limit, so the initial design phase was a hectic and exciting time.

GENESIS
I’ve read a lot about CO2 and greenhouse gas emissions, so when I saw that "a significant reduction" of CO2 emissions was one of the Millennium Development Goals, I knew what my game would focus on. I believe that technological development and research is critical to solving large-scale problems like this, so I made a game that focused on researching as well as deploying alternative energy solutions.

CHALLENGES
I found out about the Imagine Cup three weeks before the first Game Development deadline. I had to conceive, design, and build the game in just a few nights and weekends. Needless to say, it was thrilling to get to Round 2 after that!

FUTURE PLANS
I’ll be a professional game designer someday. For now, I’d be thrilled with an internship.

MORE INFORMATION
Everything about me and my games is available at emcneill.com. Enjoy!
The Robotics and Algorithm competition unified: the ingenuity needed for coding smart algorithms, the concept of having an autonomous agent in control of a simulated robot, and the animation of a 3D environment. Competitors navigated through 2 complex challenges and along the way proved their skills in a technology language required to create and test simulated Bots while implementing and applying the right algorithms to stay the course. They were indeed put to the test to use their analytical skills, savvy coding abilities, and Robotics’ technology as tools to prove they are indeed some of the sharpest student minds in technology.

These finalists have the skills and the crucial building blocks for working with Robots in a physical environment. We proudly introduce you to the Robotics & Algorithm finalists.
Argentina

Pablo Gauna

INSPIRATION
I find inspiration through travel

HIGHLIGHTS
The Imagine Cup 2008 Worldwide Finals in Paris, I enjoyed the 24 hours of the Algorithm competition. I enjoyed the fascinating sets of problems and the opportunity to meet really interesting people. And of course seeing Paris.

WORLDWIDE FINALS
I’m planning to stay in Egypt for some weeks, and travel around the country.

FUTURE PLANS
After travelling in Egypt, I’m coming back to Argentina to study for the university exams.

Canada

Byron Knoll

INSPIRATION
I chose to take part in the Robotics category because I have always been interested in Artificial Intelligence and robotics.

HIGHLIGHTS
Designing the AI module for the Mars Challenge mission.

WORLDWIDE FINALS
I look quite forward to the challenge of competing against the other finalists.

FUTURE PLANS
I plan to attend graduate school.

MORE INFORMATION
http://byronknoll.com
INSPIRATION
It is my second year participating in the Imagine Cup. Initially a story about a Chinese student Zhifeng Chen, who won the Imagine Cup 2007 IT Challenge inspired me. It is interesting and full of challenges. All of the people that I have worked with on Imagine Cup are amazing. I always learn so much from them. I love robots. I am really excited to be my robot’s teacher.

HIGHLIGHTS
The best part is learning from each other when the competition comes to an end.

WORLDWIDE FINALS
It would be great if we could take our robots home.

FUTURE PLANS
My future plans are to continue to improve.

MORE INFORMATION
http://fuminglin.spaces.live.com/

INSPIRATION
Three years ago I participated in the Project Hoshimi category. I did not really know what I was getting into. I just wanted to try something new. That was in South Korea and last year I managed to take part in the finals in France. It was an amazing experience and all the people I met during competition inspired me to continue this year as well. All of them were unbelievable and I just wanted to experience it all again and again. This year I chose Robotics & Algorithm competition, because it was created by merging key ideas of Project Hoshimi and the Algorithm competitions. For me it is above all an interesting challenge and a possibility to study new technologies and have some fun.

HIGHLIGHTS
The Mars Rover Challenge has been the highlight so far. It was a complex robot service with multiple sensors and activators. Creating such complex and coordinated strategy was really interesting and challenging, and it taught me a lot.

WORLDWIDE FINALS
I’m looking forward to meeting other participants and also to experience this fantastic atmosphere again.

FUTURE PLANS
This year is my last chance to take part as a competitor. After finals, I would like to stay in touch with the Imagine Cup in some way. Next year I would like to mentor a team or assist in the competition (Robotics & Algorithm) if possible.
Lukáš Perůtka

**INSPIRATION**
I like the idea of competition for all students around the world. Robots are our future.

**HIGHLIGHTS**
I most enjoyed seeing my rover completing the Mars mission.

**WORLDWIDE FINALS**
Pyramids, of course!

**FUTURE PLANS**
I plan on resting after the competition.

Pramuditha Aravinda

**INSPIRATION**
I heard about the Imagine Cup about two years back and I always enjoy entering competitions like these. This time I wanted to try something different than Software design. From childhood, things like Electronics, Computers and Robotics have my favorite subjects. Isaac Asimov’s stories in particular inspired me to create robotics. It’s really fun to build something that has intelligence.

**HIGHLIGHTS**
Coding the Mars Rover for the Endurance crater mission and watching it operate faithfully according to my instructions. My Robot does what I tell it to do! And of course I really enjoyed helping novice peer competitors from around the world.

**WORLDWIDE FINALS**
Actually I haven’t coded any robot of my own creation, which is ironic given that I have graduated from engineering school. Somehow I haven’t happened to take any Robotic subjects. So I’m really looking forward to play with a real robot in addition to writing code for it. Another thing I am looking forward to is finding out what happened to our Captain. Seems he has dropped out of the space craft while on the way to Mars. I also look forward to meeting and sharing ideas with the other competitors and hope it will be a great event.

**FUTURE PLANS**
I have few plans for some cool projects to build few lovely robot companions. :-) One useful thing for a robot to do would be to sit at my desk and remind me to drink my tea before it gets cold.

**MORE INFORMATION**
http://bitsbytesand42.blogspot.com/
The IT Challenge competition highlights the art and science of developing, deploying, and maintaining IT systems that are efficient, functional, robust, and secure. In most scenarios, IT professionals have a base set of tools and techniques, but still have to work through custom needs and configurations that require an intimate understanding of how all the pieces fit together. They also have to know how far the systems can be pushed before they might break. This means that every business, organization, university, and government agency requires IT professionals who are proficient in these skills and abilities. The finalists in this category have already demonstrated great proficiency in the science of networks, databases, and servers, and will be challenged in the final competition in their ability to analyze and make critical decisions in the implementation of these technologies.
Miklos Cari Sivila

INSPIRATION
This is the second year that I entered the Imagine Cup. I chose Information Technology because I am working on that area. However what really inspired me is to know where I am 'in the world': I mean this is really a good test for me to know where I am with my skills as well to I know ‘where in the world’ I am. Finally this is my last year that I can be a part of this competition, so this was really my last chance and my farewell to this competition.

HIGHLIGHTS
The best part of the Imagine Cup was to write the proposal for Round 2, because in my case was needed to test some of the configurations to see if that can solve the problem or not. It was very interesting to have all that technology running in a prototype. It is very different when you test the application for study rather than for something specific and see how it really can be solved.

WORLDWIDE FINALS
I really want to have the opportunity to show my knowledge and what I really can do it. I think that in the proposal it is not reflected what really I know and what I can do.

FUTURE PLANS
After the Worldwide Finals, (if I am in the top 3 or not), I will be encouraged to start studying more on those technologies and take the Microsoft exams on all those technologies. Right now, I am just involved in the Windows area but not in all of the applications. I want to know more, and teach later all of the technology I learn. I enjoy showing how something can be configured and how all applications really can solve big and small problems.

MORE INFORMATION
My blog: http://mikloscari.blogspot.com
Other blog: http://www.caryglobal.com/miklos
My old website: http://miklos.8m.net

Thiago Cabral Valverde

INSPIRATION
My main inspiration to enter Imagine Cup was the simple desire to learn new things and understand technologies around me better, while exchanging experiences with the best technology students in the world.

HIGHLIGHTS
Although I am pretty sure the best is yet to come, it has been delightful to test my abilities in the initial rounds, and, especially, to share knowledge and thoughts with fellow competitors via the forums.

WORLDWIDE FINALS
Other than the competition itself, obviously, there is a lot to look forward to. First of all, Egypt’s millenarian culture is extremely interesting. Also, it is thrilling to have the opportunity to meet my fellow competitors, some of the greatest technology students in the world, in person. This will definitely be a great exchange of ideas and experiences.

FUTURE PLANS
I intend to keep working towards a Computer Engineering degree, and then to pursue a career in computer technology, making a dent in the world in my way.

MORE INFORMATION
http://thiagocabral.com/
INSPIRATION
I have a dream to make a new giant like Microsoft and IBM born in China. On my way to that dream, I need to make myself stronger. Imagine Cup is the perfect stage for students, and we can compete against and with talented students from all around the world. That's why I take part in this competition. What interests me is to make a perfect architecture for organizations to improve their efficiencies while keep their data precious and theirs systems secure. So that is why I choose the Information Technology Challenge competition.

HIGHLIGHTS
The best part to date has been the time I spent preparing for the competition. I spent tons of time before Round 1 learning all about the Microsoft resources. It was really hard balancing the IT learning with my college courses. Fortunately I was able to do it and it paid off. I made the Worldwide Finals! Learning new things, constantly improving my skills and increasing my knowledge always make me happy.

WORLDWIDE FINALS
I look very forward to the IT Challenge championships. I look forward to seeing the talented works of the other competitors and teams. Tours around the city of Cairo, Egypt with the IT Challenge competitors and my friends will be interesting.

FUTURE PLANS
In my last year in college, I will keep on learning some other technologies beyond Microsoft for a more expended sight. Knowledge has no limit. Then I will spend several years working at a top IT company as a career before I start my own company.

MORE INFORMATION
http://blog.hustunique.com

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INSPIRATION
The IT Challenge competition is quite different than the other Imagine Cup competitions. I've built a solution using Microsoft’s latest technologies and products which has allowed me to deal with a large number of technologies and keep my knowledge up-to-date. Moreover, in the IT Challenge, the number of competitors who advance to the Finals is 10 from the 15,000 competitors registered for the competition. It is a great honor and dream to be representing my country, Egypt - at the Finals in Egypt.

HIGHLIGHTS
The best part is meeting the other students whom share my enthusiasm and passion for technology.

WORLDWIDE FINALS
I'm looking forward to competing in the 24 hour round at the Worldwide Finals.

FUTURE PLANS
It depends on the results of the final round. Getting the 1st place prize will only prevent me from competing next year. It will not stop my passion for the Imagine Cup and technology. If I don't have much luck in the Finals, I will start again. I will recognize my weak points, and make my knowledge stronger for the competition next year. Of course it's an honor just being in the competition to represent my country.

MORE INFORMATION
https://mvp.support.microsoft.com/profile/sherif.talaat
France

Sebastien Cubito

INSPIRATION
I have already participated in this competition last year, encouraged by my school. And it was a very good experience! Even if I didn’t pass the round 2 (I finished 13th with a score of 88%), I think it’s a good score for a first time in the Imagine Cup. I learned a lot of things during that IT Challenge. So I decided to sign up for the 2009 IT Challenge competition a second time, but this time with a goal: pass the round 2 and be in the finals in Cairo! Why IT Challenge? Simply because I don’t like programming, I like systems and networks and I want to do this in my future work. So IT Challenge is a good way to perfect my talents.

HIGHLIGHTS
For me, the best part of the competition is the round 2 of the IT Challenge (I didn’t make the round 3 last year). It teaches us to manage a project, manage our time, and search to find information by ourselves. In all my student life, I have learned more through the IT Challenge that I learned in school!

WORLDWIDE FINALS
I am looking forward to meeting people and sharing my passion with them, by discussing and exchanging ideas.

FUTURE PLANS
After the Worldwide Finals in Cairo, I will continue my studies. I plan to be a trainer in my school (SCT, SUPINFO Certified Trainer) to pass on my knowledge to others.

MORE INFORMATION
http://blog.hustunique.com
http://www.sebastien-cubito.com

Hungary

Roland Sárközi

INSPIRATION
Since I the first time I used a personal computer and Microsoft technologies, I knew I wanted to work as an IT consultant. This competition is a great opportunity to try things myself in the field and collect valuable experience.

HIGHLIGHTS
Everything. I have always loved Round 2, it is a great opportunity to plan a complex IT system and show it to the judges. It is an incredible feeling, that the jury has appreciated my proposal so I able to participate in the Worldwide Finals.

WORLDWIDE FINALS
I’m looking forward to the final round. This will be an unforgettable experience. The 24 hours will be a big challenge and I know quite eventful.

FUTURE PLANS
I will continue my experience and learning of Microsoft technologies and my work as an IT consultant.

MORE INFORMATION
http://home.sch.bme.hu/~csanas
Morocco

Es Skalli Mohamed Karim

INSPIRATION
I have known about the Imagine Cup competition since 2006. I participated with my school last year and I loved it. Now I am here to defend the colors of my country. I chose to participate in the competition IT, because I want to learn new things, new technologies, and how to have a good IT infrastructure.

HIGHLIGHTS
It’s the fact that it gives us the opportunity to get involved in solving problems that are real, with ideas, computer software, or even games that have a social message.

WORLDWIDE FINALS
I want to participate with my ideas in the resolution of the theme of this year, to better represent my country, and also to meet with other participants.

FUTURE PLANS
I am a person fascinated by new technologies, I like learning new things. That is why after the finals in Egypt, I will continue to discover all the new things in the domain of IT consulting.

Romania

Cosmin Ilie

INSPIRATION
I have always been a dreamer and Imagine Cup allows me to dream further. I chose the IT Challenge, simply because I met the right people at the right time. They guided me towards this competition by sharing stories, about the past finals in Japan and India. At that time I was not even close to the level of knowledge required by this competition but perseverance has its advantages. Another reason that drove me closer to this section and made it even more interesting, is that unlike other sections where you work as a team the IT Challenge is an individual competition, and in those 24 hours you can only depend on yourself, armed with your hard work and knowledge while trying to design, fix and react to very dynamic environments. You never know what the judges will throw at you so you just have to never give up, hope, do your best and see in the end if lady luck will smile.

HIGHLIGHTS
The 24 hour competitions from the previous two finals in Seoul and Paris. It is simply unbelievable how much these 24 hours can push you. Basically you are working nonstop, awaken from time to time by a flash shot by some photographer while you are struggling to get something done, wondering from time to time what the other competitors are doing and at the same time trying to remain positive, awake, with your mind clear so you can focus and keep working. As someone said before, the 24 hours competition is more that what you know, it is what you are.

WORLDWIDE FINALS
To win!

FUTURE PLANS
Relax, go on vacation.

MORE INFORMATION
http://portal.inea.uaic.ro/Pages/Default.aspx
http://www.flickr.com/photos/zilefericite
United Kingdom

Abdul Rauf Butt

INSPRIATION
The first and foremost inspiration for me was the name of Microsoft itself. Apart from this, I was inspired by Imagine Cup’s IT competition because it allows participants to enhance their skill set and learn new technologies while working on IT problems.

HIGHLIGHTS
For me, the best part of the competition is the round 2 of the IT Challenge (I didn’t make the round 3 last year). It teaches us to manage a project, manage our time, and search to find information by ourselves. In all my student life, I have learned more through the IT Challenge that I learned in school!

WORLDWIDE FINALS
I am looking forward to meeting people and sharing my passion with them, by discussing and exchanging ideas.

FUTURE PLANS
After the Worldwide Finals in Cairo, I will continue my studies. I plan to be a trainer in my school (SCT, SUPINFO Certified Trainer) to pass on my knowledge to others.

MORE INFORMATION
http://blog.hustunique.com
http://www.sebastien-cubirto.com

United States

Michael Burr

INSPRIATION
I have been competing in the Imagine Cup since Junior year of high school and I wanted to try again this year. This year I was especially driven by the support of my wife and grandmother. I chose the Information Technology competition because I work with a few Microsoft technologies in my work with the University of Colorado (though mainly from the development side) and I wanted to learn more about the current Microsoft technologies that I do not currently use and would have little exposure to otherwise.

HIGHLIGHTS
The best part of the competition to date was learning about some of the technologies that I do not actively work with like SharePoint and Office Communications Server. I have also enjoyed building a proposal from scratch and developing my ideas in a setting where a lot of the normal things that IT professionals do not necessarily apply.

WORLDWIDE FINALS
I’ve studied Egyptology since I was very young and I am looking forward to possibly seeing the Giza Plateau in person (even if it is only on the flight in or out of Cairo). I am also looking forward to having the possibility to win a prestigious worldwide competition in technology and having a chance to meet some of my fellow competitors in person.

FUTURE PLANS
After the Worldwide Finals in Cairo, I am planning to finish my Masters of Science in Accounting from the University of Colorado. After graduation, I plan to enroll in a graduate study program in computer science and applied mathematics with an emphasis on computational intelligence and mathematical statistics. I am currently planning on applying to University of Washington, Massachusetts Institute of Technology, and University of California, Berkeley. My long term goals are to improve upon existing AI systems used in finance and accounting and to work towards an intelligent cybernetic being similar to data from Star Trek.

MORE INFORMATION
http://rintintin.colorado.edu/~burrm/
Every single day, new information is made available to the world through the internet. Some of these interesting and even precious pieces of information can be difficult for people around the world to gain access to. The fact is: the internet has indeed made the life of a curious person endlessly entertaining. But...this is just the beginning! What happens when one starts strategically combining facts and data collected on the internet? Can you imagine the plethora of possibilities it offers all of us?

The MashUp competition challenged the students to use their imagination and creativity to organize and combine data and services available today on the internet, and create something useful that will help and improve the world in which we live. These finalists were indeed stellar creators. Using the Imagine Cup theme and the Millennium Development Goals as their starting point, they created new MashUps to help us all solve critical problems all over our great planet.
Virtual Dreams
Team Members:
Bruno Frana dos Reis
Roberto Sonnino
Mentor: Eduardo Sonnino

TITLE OF PROJECT: KnoWorld

PROJECT OVERVIEW
KnoWorld is a Popfly Block set that lets you mix world indicator data from Gapminder with events from many sources in different visualizations to analyze causes and consequences of the world’s problems. KnoWorld allows you to compare indicators visually and create new conclusions, empowering home users and teachers with easily-accessible world data and creating new visualization possibilities!

INSPIRATION
In our team, one member and the mentor had already experienced the Imagine Cup World Finals and, excited by the idea of the finals in Egypt, we decided to build a team. We chose the MashUp competition because we saw it as a great opportunity to innovate in new media in order to change our world. Besides, we saw Popfly as a simple yet powerful platform to express our ideas through a user-friendly interface.

TEAM HISTORY
Eduardo and Roberto, as brothers, have been working together in Imagine Cup projects since 2005. After Roberto went to France in a student exchange program he met Bruno, a student in the same program who shared his interests, and they quickly became friends and started working together.

TEAM EXPERIENCE
Before the competition, one of the members of the team had already played a little bit with Popfly, but none of them had extensive experience with it. However, both members were proficient in the basic technologies needed to build this project.

HIGHLIGHTS
Until now, the best part of the competition was raising adoption to our project and receiving praise by many people and even by teachers who perceived its potential.

GENESIS
After lots of brainstorming, we saw in Popfly a simple interface that could allow everyone to MashUp world indicators that relate to all 8 MDGs and analyze them in a new way. Once we had found the data sources and came up with some visualization ideas, we found out it had even more potential, especially in education.

CHALLENGES
Besides the physical distance between the team and its mentor (almost 10000 km), we had some difficulties with the lack of documentation in Popfly and some browser bugs. Also, we saw how hard it is to make an effective adoption campaign for a project.

FUTURE PLANS
After the competition, we plan to continue working in our project, to spread it and to raise adoption particularly among teachers. While the project is not very business-centric, we believe it creates great opportunities to empower educators and build awareness on the world’s issues.

MORE INFORMATION
http://virtualdreams.com.br/blog/2009/04/knoworld-know-your-world-to-transform-it/
http://www.youtube.com/watch?v=7SQPeq9_7c4&fmt=22
**TITLE OF PROJECT:** MashUp Corruption

**PROJECT OVERVIEW**
Awareness is the first step to proper action in our fight against the biggest millennium problem - poverty. Through this MashUp, we hope to enlighten the Filipinos on one of the root causes of poverty - corruption, especially in the government system. Opinions gathered from an online Filipino forum, pinoyExchange.com, will be spread via an application in a social networking site with the hopes of educating our countrymen on the issues of corruption and the opinions of others about it.

**TECHNOLOGY/SOFTWARE USED**
- Microsoft Popfly
- PHP

**INSPIRATION**
The MashUp competition sounded challenging and was something new to learn. We wanted to join Imagine Cup because in our school it’s not always that non-super genius people get invited to competitions. But our professor invited all of us to join so we thought of it as a chance we should grab.

**TEAM HISTORY**
We were blockmates at introAI and also groupmates. Our grouping didn’t work out so we got disbanded into two smaller groups. Janelle decided to give it a second chance, I guess.

**HIGHLIGHTS**
Most probably, being able to participate in a competition related to our field of study and, of course, entering the semi-finals. Overcoming our problem with working together came as a bonus.
TITLE OF PROJECT:  HospFinder

PROJECT OVERVIEW
HospFinder is a MashUp that allows us to search hospitals by many criterions, for example by name or location. We can obtain data like addresses, zip codes, phone numbers, information about emergency services and much more with just a few clicks. Moreover, HospFinder provides us with information on how well the hospitals care for all patients with certain medical conditions and gives the opportunity to compare them in these terms and in the terms of payments for various types of medical operations. Results are presented in a clear way, all hospitals are located on the map, so everybody can see hospital’s position. HospFinder is integrated with Yahoo!Traffic, therefore returns also have information about traffic jams, street repairs or incidents. It is very helpful in case we want to get to the hospital as fast as possible.

TECHNOLOGY/SOFTWARE USED
• Microsoft Popfly
• Visual Studio 2008
• Virtual Earth
• Yahoo!Traffic
• GeoNames
• JavaScript
• XML SQL

INSPIRATION
Imagine Cup is one of the most challenging technology competitions. It gives students the opportunity to open their minds and improve skills in the creation of some innovative solutions which will contribute to better life of the whole community. While Imagine Cup offers many categories, I wanted to gain experience in working with Web 2.0 applications, and that was the main factor why I have chosen MashUp competition.

TEAM HISTORY
I don’t remember exactly, but I have known myself for a really long time!

HIGHLIGHTS
My favorite part was the development of the MashUps - the entire process of putting the ideas into action and discovering the new ways of adaptation of the Block I have created during the first round.

GENESIS
Health is one of the most valuable things we can ever have. Therefore, I decided that medical care is what should be the main subject of my solution. Reduce child mortality, improve maternal health and combat HIV/AIDS, malaria, and other diseases - these three Millennium Development Goals inspired me to create my solution.

CHALLENGES
I had to face with many challenges while developing HospFinder, however, I think, that the most difficult problem to solve was time optimization of the HospFinder. Receiving data from the external sites and displaying them took too much time when many objects were returned. Work speed is the crucial factor for the user’s convenience, so increasing it was one of my priorities.

FUTURE PLANS
After Imagine Cup Finals I’m going for the internship to India. I plan also to improve HospFinder in order to add more features and start preparations for the IC 2010 in Poland. Own business with my project? I am thinking about it!

MORE INFORMATION
www.karolkaczmarek.com
TITLE OF PROJECT: Virtual Earth News (VENews)

PROJECT OVERVIEW
We hope to help everyone understand the environmental problems that we are facing on the earth. Many people think that pollutions and disasters only happen in certain countries, but in fact, they could happen everywhere. We hope to raise the awareness of earthlings on environmental issues happening in our surroundings.

TECHNOLOGY/SOFTWARE USED
- Microsoft Popfly
- Microsoft Visual Studio 2008

INSPIRATION
The theme for Imagine Cup 2009, "Imagine a world where technology helps solve the toughest problems facing us today," caught our attention. We want to make a difference, we want to make use of our knowledge to do something for our world. We believe that if everyone is willing to play a part, we could solve the world’s toughest problem. If somebody has to start the ball rolling, we would take the lead!

TEAM HISTORY
Kong Wen Bin and James Yeo were classmates where Mdm Kang was their lecturer.

TEAM EXPERIENCE
When PlanetKY compete in the Imagine Cup, we (including our mentor) have no experience in MashUp at all. However, we are skilled in other Microsoft applications such as Visual Studio & etc, thus we picked up the skills quickly. We learn the MashUp as we work on our VENews MashUp application.

HIGHLIGHTS
The best part has been when we were creating our own unique MashUp block, LocationIdentifier. It started out with lots of loopholes in the program, when we are not able to get accurate location as we expected. However, after weeks of research and testing, we have successfully enhanced it to reach the level of accuracy that we desired. It is great!

GENESIS
There are a lot of environmental issues happening in the world, but the exact location and magnitude of the issues are not readily available. Thus we want to raise the awareness in a worldwide sense, by breaking through the piecemeal reporting of news in a traditional manner and instead, make use of Microsoft Popfly application to create a unified & clear overview of specific environmental issues across the world. In raising the awareness, we aim to create general & widespread knowledge in environmental sustainability. This is done through the very user-friendly and easy depiction of real-time events that are happening around the world.

CHALLENGES
First of all, we do not know the best manner to utilize the Microsoft Popfly technology. Another challenge was to improve the performance of our MashUp application, VENews - we use real-time retrieval of RSS feeds, thus we had to think of ways to cut down the loading time to make it user-friendly. As not many people are exposed to the area of Microsoft Popfly MashUp application, when we are publicizing our MashUp application, VENews, we not only have to explain to them our idea, but we also need to build their interest in adopting Microsoft Popfly MashUp technology and teach them how to use our MashUp application.

FUTURE PLANS
We plan to further enhance VENews to make it country specific, so that it can filter not only according to environmental issues categories, it can also be filtered according to countries/continents categories. We have planned to further tie-up with environmental groups, such as National Environment Agency (NEA) in Singapore. We also have plans in setting up a Microsoft Popfly MashUp application creation company, because through working on VENews, we found out that Microsoft Popfly technology is actually very powerful yet very simple and easy to use. It is very user friendly and we believe that it would become popular quickly and become the trend of the internet world.

MORE INFORMATION
http://www.mit-nyp.net/planetky/
TITLE OF PROJECT: Hope for Poor—Sasrutha

PROJECT OVERVIEW
Microfinance is a simple approach that has helped very poor people around the world to alleviate their poverty through micro-credit. In this approach, very poor people, mostly women with traditional skills and entrepreneurial instincts, are given loans, other financial services, and support to initiate, establish, sustain, or expand very small, self-supporting businesses. A key to microfinance is the recycling of loan money thus multiplying the value of money in defeating global poverty. By this application Sasrutha, we try to smooth the activities of microfinance.

TECHNOLOGY/SOFTWARE USED
- www.popfly.com
- Popfly Explorer
- Microsoft Visual Studio 2008

INSPIRATION
As persons representing our country, Sri Lanka at the Microsoft World Finals 2008, in Software Design we realized the value of meeting competitors from many different countries and we were thrilled to be there. We chose MashUp competition because we wanted to experiment with this new MashUp technology.

TEAM HISTORY
We were great friends from the time we were schooling in the same school and now in the same university as undergraduates.

TEAM EXPERIENCE
We never had any previous experience on MashUp.

HIGHLIGHTS
Brainstorming of ideas and trash out of issues is by far the team’s favorite part. The many hours we spent on these two activities proved to be intellectually stimulating while giving extreme fun.

GENESIS
Recognition of the gravity of poverty especially in developing countries and success achieved by Grameen Banks System motivated us to develop this MashUp application as an initial step. This is in recognition of the two Millennium Development Goals: Alleviating Poverty and Empowerment of Women.

CHALLENGES
It has been a long journey of ups and downs which at the end turned out as a life time learning experience. Most challenging part was the coincidence of the competition deadlines with university projects, coordinating a faculty exhibition, and on top of everything faculty examinations.

FUTURE PLANS
First of all, we want to concentrate on our studies at the university and complete the degree successfully. As we have already had negotiations with a few microfinance institutions in Sri Lanka in using this MashUp in their web sites and we will be collaborating with them after the finals.

MORE INFORMATION
http://www.hopeforpoor.blogspot.com/
TITLE OF PROJECT: Millennium Development Goal Actors

PROJECT OVERVIEW
Our entry to Imagine Cup 2009 revolves around the application of sentiment analysis algorithms to content published on the Internet. We realized that sentiment analysis tools had the potential to make data more meaningful to people. That is, if we could place otherwise flat text into the context of human emotion, we could make stories richer to the users interacting with them. This had the potential to address the Millennium Development Goals (MDGs) because it could be used to inspire action by connecting users to the stories of people effecting change in the world. We built a Popfly block to enable others developers to leverage this value as well as three unique MashUps to demonstrate the Block's potential. Finally, we built a website that links these three MashUps, ultimately creating a cohesive experience dedicated to addressing the Millennium Development Goals.

TECHNOLOGY/SOFTWARE USED
- uclassify
- Daylife
- Alchemy API
- change.org RSS
- Java Servlets
- HTML/CSS
- Open Calais
- LingPipe
- Google News
- Twitter API
- PHP
- Java

INSPIRATION
We were inspired by the ability to apply knowledge we have learned throughout college to make an impact on the world. We saw the opportunity to apply our passions to a directed purpose. The MashUp competition allowed us to creatively engage available web tools to develop something meaningful, useful and inspirational.

TEAM HISTORY
We are both American students who coincidentally studied at Georgia Tech’s Lorraine campus in Metz, France during fall 2008. We both became actively involved in Georgia Tech Lorraine’s BDE (Bureau des Eleves = French Student Government) and became friends while planning events for students and immersing ourselves in the French culture. During a random evening in the computer lab, we both discovered our passions for challenges, technology, web development and using technology for positive change. Knowing Marc’s creative background with web design, Kathy mentioned the Imagine Cup. Thus began a journey of brainstorming, feature specification, learning, fun times and the unleashing of passions for technology and changing the world.

TEAM EXPERIENCE
We both had some experience with web development, but no experience with MashUps or Popfly.

HIGHLIGHTS
Definitely the best part has been learning about the Millennium Development Goals, learning about new tools and application, and discovering interesting ways to combine unrelated tools to produce something inspiring and enriching. Can’t forget how much we enjoy mastering challenges with MashUps through creative code, and seeing people all over the world unite under the same purpose of using technology to help the MDGs progress. There is a huge community of people online-bloggers, programmers, students—committed to using technology for good. It was inspiring to contribute to this community with our work for Imagine Cup.

GENESIS
If people are aware of inspirational service acts by others, then they may be inspired to act as well. One day, Marc excitedly proposed the idea of showing the world the heroes who are acting on the Millennium Development Goals. This initial idea developed into what is now MDG Actors- a tool where people and stories related to the MDGs are highlighted with ratings on positive and negative sentiments towards them. In order to show the versatility of our Popfly block which analyzes sentiments on a piece of text, we also present a “How does Twitter feel…” tool and a “Show me Spin…” tool. These tools further show how the world feels about a topic by analyzing Twitter Tweets. They also showcase the news stories related to specific MDG actors and indicate the positive or negative sentiments that those news stories express. The two latter tools not only allow users to find sentiments around people and events of the Millennium Development Goals, but are also fun for exploring sentiments around random topics and events. The inspiration for our submissions was all of the MDGs. We wanted to bring the latest stories, news and ideas related to the MDGs to all people to inspire change.

CHALLENGES
UI challenges with Popfly, deployment and adoption in short time frame. Javascript was the most time consuming part of development. We really pushed the boundaries of what was possible with Popfly, making our development process a bit more difficult. Balancing class work with Imagine Cup (since Imagine Cup was the more enticing of the two), and narrowing down broad ideas to something tangible and impacting (at one point we had a list of 50 ideas!).

FUTURE PLANS
Our MashUp is just the first step in highlighting the world’s heroes. While working on it, we became aware that we were building a platform for future content analysis. We would love to see it grow past what is shown at Imagine Cup.
Tell a story through pictures. In the Photography competition, students are challenged to communicate their story inspired by the Millennium Development Goals and the toughest problems facing us today. To qualify, the following teams captured still photos that draw an emotional response from the audience, provoke thought and create further discussion. By making this connection, the hope is that audiences will be more informed and emotionally compelled to take action.

Technology, as a tool to understand how to solve the big problems, opened the door for these competitors. Each team indeed took the challenge to present to each of us—what is at stake if we fail to act.
**TITLE OF PROJECT:** Pursuit of Life

**PROJECT OVERVIEW**
We believe that human beings with their minds are the best technology to be used worldwide. We present the problem of society that misuses the technology, and slowly converges towards a submissive position. We forget who invented what, and that humans should be the ones directing the technology flow, not the other way around. People used to be technological beings. People used to be technological individuals. Today, technology is a materialized obstacle. Technology is a pole set too high to leap over, and man has ceased to be the one to jump over it.

**TECHNOLOGY/SOFTWARE USED**
- Olympus E500
- Olympus E30
- Olympus ZD 14-54mm f2.8-3.5
- Olympus ZD 11-22mm f2.8-3.5
- Olympus ZD 35-100mm f2
- Olympus FL-50 flash unit

**INSPIRATION**
We were inspired by the broad theme set by Imagine Cup 2009. We found a lot of maneuvering space for creatively expressing our opinions on the problem through the lens of a camera. In our opinion, photography is a universal medium that can easily interpret a story in every corner of our planet.

**TEAM EXPERIENCE**
We are both experienced photographers. One of us is a professional photographer as well, and the other a photo enthusiast.

**HIGHLIGHTS**
Paris, and coming in third place last year!

**TEAM MEMBERS:**
- Martin Štokić
- Duje Nebojša Pandžić

**MORE INFORMATION**
maaxaam.deviantart.com
maax.pticica.com
The Xtroverts

Team Members:
Binoj Kaliyarthodi
Vishwanath Krishnan

PROJECT OVERVIEW
A project based on the life of street children from our neighborhood. They are happy in their little world. They are enjoying it. We just want to keep the smiles on their faces. We want to give them the opportunities to be self sufficient. And it's just the beginning...

TECHNOLOGY/SOFTWARE USED
• Adobe Photoshop
• Windows XP Microsoft Office
• Nikon D40X D-SLR
• Canon EOS1000D

INSPIRATION
What inspired us were the Imagine Cup theme, money, fame and glory.

TEAM HISTORY
We are from the same college and we are roommates.

TEAM EXPERIENCE
We had a two weeks module in photography as a part of our curriculum. It is also one of our passions. We have won awards in college competitions and we have been a part of photography exhibitions. We head the photography club in our college.

HIGHLIGHTS
We have had this opportunity to learn and understand the real problems of the world and create an awareness to find solutions for them. We have learned new technological innovations. And of course, this has helped us keep up our standards through competing with others in international scenarios.

GENESIS
We used to work with non-governmental organizations for child welfare and green design. For us being a designer is just not being creative but also learning to be a bit more sensible and sensitive to your surroundings and emotions. This is why we decided to take the lead and come up with this concept. Regarding the Millennium Goals, its just not one that was our inspiration. It was an accumulation of: eradicate extreme hunger and poverty, achieve universal primary education , reduce child mortality, and improve maternal health that were our inspirations.

CHALLENGES
We don't have that much professional education and knowledge in this field so that was definitely one challenge. We do not have a good slr camera and accessories, so it was a bit difficult to capture the real feel. We do however have good skills and creative sensibilities so that helps.

FUTURE PLANS
We are currently pursuing courses in Design. But we have realized the potential of Photography as an integral part of Design and expression. We will work to continue to make our photography work a prominent aspect in our Design submissions.

MORE INFORMATION
http://www.orkut.co.in/Main#Home.aspx?hl=en&tab=w0
http://www.flickr.com/photos/28173378@N05/
TITLE OF PROJECT: Remainder

PROJECT OVERVIEW
A project based on the life of street children from our neighborhood. They are happy in their little world. They are enjoying it. We just want to keep the smiles on their faces. We want to give them the opportunities to be self-sufficient. And it's just the beginning...

INSPIRATION
My inspiration comes from non-Japanese advertisements and from observing people's behavior and actions.

TEAM HISTORY
I came to know the Imagine Cup through a different competition where Imagine Cup had a special award.

TEAM EXPERIENCE
Nothing particular

HIGHLIGHTS
Nothing particular

GENESIS
After gazing at the heel of a piece of bread which I had cut off to make a sandwich.
I was inspired by the goal "Promote gender equality and empower women". My future dream is to become a designer. All the designers who are well known tend to be male, and I have been questioning such a fact. I learned a lot after researching the male-female divide and I felt resentment.

CHALLENGES
Determining the photogenic subject in order to get the message through.

FUTURE PLANS
I plan to become a world-class art director. I would like to make an advertisement for the good of mankind. I would like to encourage myself to participate in as many student competitions as possible.
**Zglad Team**

Team Members:
Ernest Płaskocinski
Leszek Rutka

Team Mentor:
Wojciech Pacholec

**TITLE OF PROJECT:** Reality

**PROJECT OVERVIEW**
We have 12 photos in our presentation; they show a theme of identifying problems and finding solutions.

**TECHNOLOGY/SOFTWARE USED**
- Fuji S9600
- Opteka Semi Fisheye
- Qtpsfgui 1.9.3
- GIMP 2.6.6

**INSPIRATION**
Our inspiration was a desire to solve the problems of our world. We chose photography because we like to take pictures and we want to show our vision of problems and how to repair them.

**TEAM HISTORY**
We have known each other from the beginning of our studies. We had a band called Zglad. We have good memories of our band so we called our team Zglad Team.

**TEAM EXPERIENCE**
We are amateur photographers and we are doing this for fun. So we do not have much experience.

**HIGHLIGHTS**
We believe a highlight has been measuring up with other teams.

**GENESIS**
We had an idea and we began to add additional items. Our solution was inspired by "eradicate extreme poverty and hunger.”

**CHALLENGES**
Our only concern was to think of the essay that went along with our submission.

**MORE INFORMATION**
http://www.pr.radom.pl/
Woolgathering
Team Members:
Lio Shilei
Lim Shi En Chessa

TITLE OF PROJECT:  Embracing the Green Technology

PROJECT OVERVIEW
Our photo essay reflects on the environmental impacts of our actions, the issue our group has identified as the toughest problem we face in the world today. We highlight the importance of using green technology to overcome the excessive reliance on fossil fuel by incorporating the use of renewable and alternative energy resources. Through this highly innovative technology, we are able to create a sustainable environment for everyone today and for the future generations to come.

TECHNOLOGY/SOFTWARE USED
• Nikon D80
• Nikon D70
• 18 - 135mm AF-S f/3.5-5.6G DX Zoom Lens
• 50mm f/1.8 AF Lens
• 18-70mm f/3.5-4.5G DX Zoom Lens
• Software(s): Adobe Photoshop CS 3
• Adobe Lightroom 2.3
• Microsoft Office 2007

INSPIRATION
Besides our passion for photography, we love taking on new challenges! The Microsoft Imagine Cup and its intriguingly unique theme focusing on the importance of technology definitely provide a good learning experience for us. So we decided to give it a go in the photography competition, and definitely hoping we are able to earn a top three placement this year.

TEAM HISTORY
We belong to the same class in our course of study. In addition, both of us share so many similar interests, namely the Japanese culture, staying up late watching a drama series and of course not forgetting about our undying passion for photography! It is destined that we are to be team mates!

TEAM EXPERIENCE
We were both photography enthusiasts even before we met. Later, our course of study allowed us to go deep into photography, touching on subjects we had never been able to learn during the pursuit of our field of interest by ourselves.

HIGHLIGHTS
Definitely getting into the finals! It’s not every day you are presented with such amazing opportunity to be able to meet people from all over the world.

GENESIS
Goal: Environmental Sustainability. Before this, both of us already had very strong beliefs in the importance of conserving our environment for the present and the future. With technology, it definitely helps to make our lives easier these days. Green technology has always been present in the environment to reduce the impacts of our actions. We had grown so accustomed to the technology in our lives, we had neglected its abilities and importance. This inspired us to create and deliver the message of emphasizing the importance of green technology in our world.

CHALLENGES
We had a tough time struggling with the tight deadline of only about a week for the submission. Besides this, we had to make time for our school assignments. Time management was just one of the issues we had to face. Coming up with ideas in such a short time span was really frustrating.

FUTURE PLANS
As students, ultimately we have to return to where we are - which is to finish our course of study in Visual Communication. Both of us have plans to venture into the photography business at a later time. So we really hope the experience we accumulate from this competition will bring us far in the industry. In addition, we would also like to propose a campaign with our project in Singapore to emphasize the use of technology to resolve the environmental issues we face today.

MORE INFORMATION
http://genocidekills.livejournal.com
**TITLE OF PROJECT:**  Beyond the Canvas

**TECHNOLOGY/SOFTWARE USED**
- Canon 5d with multiple lenses
- Adobe Photoshop CS4

**INSPIRATION**
The Millennium Development Goal that inspired our solution was Combating HIV/AIDS, malaria and other diseases. HIV/AIDS can be a difficult subject to address so we started thinking about what has been done to get people’s attention. Keith Haring’s art and involvement in AIDS research and awareness immediately came to mind. If we could use art like Keith Haring did, maybe we too could cause a reaction.

**TEAM HISTORY**
We are neighbors. I (Rachel) was walking up to school and, without even knowing me, Tara offered me a ride to school. On the way to school she learned that I was an artist, I learned that she was a photographer. I had a good eye for design, and a creative vision, and she could make ideas possible through her technical skills and creativity with a camera.

**TEAM EXPERIENCE**
We have enjoyed collaborating on ideas. It’s amazing what other people bring to the table. The more people sharing ideas, having to do creative problem solving, and working together with a common goal, the more everyone grows.

**HIGHLIGHTS**
Working on a team and with other people really broadens your mind and broadens the possibilities. It was such an awesome example of how the Millennium Goals will be addressed and solved. It will take a communal effort and the variety of ideas and power that every individual has to offer.

**GENESIS**
We came up with our submission by thinking of how these subjects have been interpreted and shown in the past. It is evident through the art of the world that family, man, woman, child, food, nature, earth, love, and life have always been innate subjects of human interest. But the contexts of these subjects have evolved over time through society’s feelings and the artistic medium. We wanted to continue the change and push it forward with our 21st century ideas and medium. We wanted to emphasize this evolution of thought by putting our modern ideas into the context of classic art.

**FUTURE PLANS**
Our goal was not to launch a business; we don’t have the prerequisites to start a business. Our goal was to plant ideas; we do have the knowledge and skills to communicate ideas that would inspire all sorts of people, businessmen, teachers, and students alike. We will continue to communicate and address the Millennium goals through our photography and art. Our plan will always be to make people aware, to start and participate in a chain reaction that changes someone’s life for the better.
We all love to go to the movies but some of us love to make movies! Filmmaking is a technical craft combined with the art of storytelling using moving images. Creating a short film presents the challenge of conveying a message in a brief period of time while also being visually stimulating. In this competition, the students were challenged to create an original short film and also demonstrate excellence in filmmaking at all levels from concept art to polished editing.

From concept and storyboard, to footage and editing, the Short Film finalists put it all together! Unique perspectives and creativity abounded in the process. The stories they brought to life have a strong purpose and meaning inspired by the Millennium Development Goals. Take a minute to learn more about each of these talented Short Film finalists.
A Casa Amarela

Team Members:
Claudia Daher Pitta
Talita Albuquerque Hayata

TITLE OF PROJECT: Working Our Way Out

PROJECT OVERVIEW
Our animation tells the story of a young man descended from a long line of farmers who have cultivated the same land for decades. He and his neighbors face an unexpected threat when a factory is built in their valley, and they all have to learn how to stay together and work their way out.

TECHNOLOGY/SOFTWARE USED
• Traditional animation table
• DigiCel Flipbook
• Adobe Photoshop
• Adobe After Effects

INSPIRATION
Our faculty colleagues won the Seoul finals in 2007, they spread the word. We found it a very different and interesting competition. We formed a team in 2008, with some good ideas for the competition. The Short Film category was most suitable, as we are constantly studying animation techniques.

TEAM HISTORY
We are both in the same design courses at the university. Claudia has been an animation addict since day one, and Talita started studying with Claudia after checking out some of her best work.

TEAM EXPERIENCE
We produced a two minute 3d animation in 2008 that was very well received and won some accolades. We were eager to try to integrate some old-school techniques that included beautiful watercolor scenes and very simple sketches.

HIGHLIGHTS
The best part was the excitement we and everybody who helped us had about our project; from discussing the competition theme to solving technical problems in a very light and positive mood.

GENESIS
We tried to figure out what it is that impedes us from achieving a higher state of being. Some obstacles included: inertia, fear of disapproval, and lack of information. All the Millennium Development Goals are interconnected, so we started with education but ended up talking about sustainability, improving child and maternal health, the end of hunger... all this through sincere partnership and trust.

CHALLENGES
We don't live in the same city, so an internet connection was a great help (when it worked), but also delayed us a great deal (when it didn't work). We're not experts at editing software or masters of the 2d management process either. Finishing the video file and bringing all the scenes together were challenges. Time was short too, as we aren't professional animators and have other jobs, and this is our graduate project year.

FUTURE PLANS
Yes, we plan to make A Casa Amarela an experimental short film animation studio. We've been trying to assemble the necessary hardware and to find the right partners, so we can continue to produce beautiful and meaningful animation.

MORE INFORMATION
http://studioamarela.wordpress.com/
TITLE OF PROJECT: One Degree of Separation

PROJECT OVERVIEW
Dee, the humanoid robot is the protagonist of the film. Dee is short for DX-168. It is also short for “didi” which means elder sister in India. Though many people in the village rely on Dee to solve a lot of their problems, there are some who are suspicious of her. They cannot relate to an android no matter how much Dee looks like them. The idea of humanizing technology is the theme of this movie through Dee’s character, as well as the natural human inability to immediately accept change. Researchers today seek to humanize technology. They want the interface between man and machine to be as intuitive as possible. The ultimate aim is to convert human-computer interaction into human-human interaction. “One Degree of Separation” denotes how technology can shrink the world and enhance our knowledge base. This film envisions ways technology can help solve the problems of education and child health.

TECHNOLOGY/SOFTWARE USED
- Nikon D80
- Sony DCR-2100 camera
- Adobe Premier Pro CS3
- Adobe After Effects CS3
- Maya 8.5

INSPIRATION
The inspiration to work on something out of our daily routine and explore the area of film making inspired us to enter this Short Film competition. Imagine Cup gave us a perfect platform to compete against students around the world.

TEAM HISTORY
Our team is a composition of three students from different disciplines in our college. A common interest in filmmaking brought us together for this project.

TEAM EXPERIENCE
All three of us had very little experience in filmmaking. While Sumit had done a bit of stop motion (http://dagarsd.googlepages.com/stopmotion.html), none of us have ever worked in filmmaking before.

HIGHLIGHTS
The best part (by far) was actually shooting the movie. The experience of roaming around an unknown village, trying to communicate through symbols (for the lack of common language) and shooting long hours inside the homes of villagers was unique and exhilarating.

GENESIS
Coming up with a script was as hard as making the movie itself. We discussed many stories, and considered many different approaches. We researched all the Millennium Development Goals. We came up with three storylines, and our mentor helped us balance our vision with pragmatism. We decided on one of the stories and refined it further to lend more depth to it.

CHALLENGES
There were lots of them. Since this was our first effort, at every stage of the project we consulted more experienced people in the field. The storyboarding, the scriptwriting, camera work, lighting, editing and sound editing were all steps of movie making that were difficult yet exciting for us.

FUTURE PLANS
No. Ours is not a business concept. But we have decided to shoot more movies, especially short films.
TITLE OF PROJECT: The Beginning

PROJECT OVERVIEW
A classical music montage sets the scene to imagine a better world for present day man. The lack of teachers in rural areas is solved by live streaming from urban classrooms. The education boom starts off an innovation spree and the Personal Identification Device (PID) is invented. This is a multipurpose device distributed to every citizen. It brings Information Technology to the common man’s doorstep by connecting everybody over a common network. With the click of a button, farmers, truck drivers, storage supervisors, distributors, vendors and others can update the world with the current status of their products. This increases the efficiency of the agricultural industry in developing countries. Consumers use PIDs for all monetary transactions like a debit card. This discourages corruption because all transactions are recorded. Efficiency is increased because product value is shared between production departments immediately. The rise in one field can have a domino effect on other sectors as well. Imagination is the first step to development. Present day man has embarked on that step.

TECHNOLOGY/SOFTWARE USED
• Adobe Premiere Pro for editing
• Adobe After Effects for compositing
• Imagineer Systems Mocha for planar tracking
• Imagineer Systems Motor for rotoscoping
• Autodesk Maya for domino effect
• Adobe Photoshop for base plate image editing.

INSPIRATION
Microsoft Imagine Cup, with its global stage, provides one of the most competitive arenas possible. Technology in itself is something we find quite interesting. Imagine Cup short films combine technology and creativity. An attempt to excel in this competition makes for a very satisfying experience.

TEAM EXPERIENCE
In September 2008 we worked on an amateur short film, “The Terror Within,” for a contest in India. We also worked on another amateur short film, “Flicker,” which won the best film award in the 6th Chennai International Film Festival, December 2008.

HIGHLIGHTS
The best part was the story conception stage where we were enthralled by the realization that an imaginative contest could spark ideas for real world solutions and implementation. Imagine Cup helped our project get closer to becoming reality and increased our excitement for its potential.

GENESIS
At the time of story conception, we felt every MDG (Millennium Development Goal) was as important as the other. We asked ourselves, “why is the world the way it is?” and we came to the conclusion, a la Socrates, that “knowledge is virtue.” We realized that each MDG is related to the other through knowledge and awareness. Hence our solution encompasses nearly all the MDGs starting from education.

CHALLENGES
There is the saying that you do not to shoot anything if you don’t know exactly how to fix it. Well, we broke that rule out of necessity. We didn’t know much about visual effects to start with, and had to learn and explore along the way. We were determined to make VFX as seamless as possible. Every shot that involved VFX was a major challenge, and we had differences of opinion on the best way to shoot each scene. We had to sort these out within time constraints. But since this process brought about a plethora of new ideas, the result was better and more refined. Submitting a coherently edited piece of 3 minutes was a difficult task that we feel we eventually tackled satisfactorily.

FUTURE PLANS
We were already working on a project involving NLP (Natural Language Processing) to facilitate improved communication between man and machine. Easy access to information for everyone is a theme in our short film. We also tried to develop viable software technologies that deliver information to people with human language as the only input. Our short film, though an imagination of the future world, is a definite possibility. We are trying to turn our film into reality.

MORE INFORMATION
monishvivek86@gmail.com
ivdavidster@gmail.com
pratheepan_1@hotmail.com
TITLE OF PROJECT:  EarthOn

PROJECT OVERVIEW
Goal is just a spot at the end of the plan. Defining the eight goals is just a beginning of our journey. Now we need the eight plans, the eight ways that will lead us to the finish. We are not here to show you that way. We don’t have that plan. We are artists, as such, our goal is to inspire better or wiser than us, and thus make the eight goals possible goals. The idea is to bring everyday technology to every person and to encourage them to use it. It is to share ideas and solutions and experience how to improve us, because, only then we can make a better surrounding. So, let’s make it together, let’s celebrate humanity. It’s all on us. All features are 3D rendering, combined with some classic artistic techniques. In fact, our Academy of Applied Arts encourages standard visual techniques so all textures and background images are brush-painted.

TECHNOLOGY/SOFTWARE USED
• 3D studio MAX
• Microsoft Expression 2
• Microsoft Paint
• Microsoft Movie Maker

INSPIRATION
We love art & we love technology. Animation is the strongest link between art and technology.

TEAM HISTORY
We met through high school, the academy and through friends.

TEAM EXPERIENCE
We had completed several student projects (basically scenography) and some animated features.

HIGHLIGHTS
Work! Oh and a trip around Europe. Yeah!

GENESIS
We ended up being inspired by some goals more than the others. Education, environment & health were the main ones.

CHALLENGES
One day equals only 24 hours

FUTURE PLANS
Paramount, maybe.

smor-team
Team Members:
Sava Ćajetinac
Magdalena Vlajić
Marija Živković

Mentor:
Dejan Bodanović
TITLE OF PROJECT: New Energy

PROJECT OVERVIEW
We see the solution of the problem being in the use and physical potential of every person. Even a person without education and special qualifications can use his/her physical abilities to create ecologically clean energy. The energy received that way will be used to get electric vehicles going. This, in its turn, will lead to the decrease of carbonic acid emission and, as a consequence, to diminution of the greenhouse effect. This technology can become a source of income for millions of people. While thinking over the problem we started from already existing technologies. The idea we suggest can be brought to life as early as NOW.

TECHNOLOGY/SOFTWARE USED
- Adobe Photoshop CS3
- Adobe After Effects CS3
- Autodesk Maya 2008
- Adobe Audition CS3
- Panasonic 405D

INSPIRATION
The chance to check our abilities at the world competition

TEAM HISTORY
We are students of the same study group

HIGHLIGHTS
We have enjoyed the process of shooting our film.

GENESIS
We chose the theme of poverty, because in our city this theme is seen everywhere.

CHALLENGES
Our largest issue was the lack of professional equipment.

FUTURE PLANS
Yes, we plan to use our project to launch a new business
TITLE OF PROJECT: Mr. Snowpenny

GENESIS
We thought about simple problems facing people all over the world, and decided that an effective and environmentally friendly form of transport could really make some radical changes. We believe such an invention would eradicate world hunger, ensure environmental sustainability and help develop a global partnership for development.

CHALLENGES
The animation took us a lot longer than we realized. None of us had any real experience doing it before and so we had to learn on the job!

FUTURE PLANS
We’re all passionate film makers, so I suspect we’ll continue to make as many films as we can!

PROJECT OVERVIEW
This is a short story about how one man’s invention changed the world.

TECHNOLOGY/SOFTWARE USED
- After Effects
- Adobe Premier

We shot the live action footage in front of a green screen. We then combined this with other still images and video clips in After Effects to create the final composited images. The animation was drawn by hand and then animated in After Effects. The whole film was edited in Adobe Premiere.

INSPIRATION
All of us are avid filmmakers and when we heard about the Imagine Cup we thought it sounded like a great competition. We relished the opportunity to use our filmmaking skills to try and create a positive message about how technology could help the world.

TEAM HISTORY
We all met at our school, the London Film Academy.

TEAM EXPERIENCE
We’ve all been making short films for some time now.

HIGHLIGHTS
The highlight to date was probably filming the green screen sequences. None of us had that much experience doing this and so it was really interesting to learn which techniques worked and which didn’t.
Once taking a back seat to functionality, design was seen as a luxury instead of a necessity in developing technology. However, as technology continues to advance, the two are becoming equally essential in creating a marketable device, making design a field that is undoubtedly paramount for the future.

No one can deny that this is a tough time around the world with many difficult challenges facing us – in society, economy, culture, environment, and health, to name just a few. Old ways of trying to address these feel outdated and ineffective. The world is searching for new and creative ways to deal with this volatile, uncertain and challenging time. This is a special opportunity for designers - a time when the world needs creativity to solve the hard problems in innovative ways. As young designers, these finalists have shown their talent in addressing the Millennium Development Goals with bold, fresh and imaginative submissions.
Willburn
Team Members:
Alexandre Nacari
Eduardo Motta
Henrique Manetta Perticarati

TITLE OF PROJECT: Cheops—Multitouch Application for Assistance in Literacy

PROJECT OVERVIEW
Cheops is a multi touch screen surface designed to improve child literacy, providing a multi-faceted experience, giving students a fun way learn.

TECHNOLOGY/SOFTWARE USED
- Microsoft Expression Design
- Microsoft Expression Blend
- Microsoft Expression Encode
- Windows Presentation Foundation
- .NET Framework 3.5
- Adobe Flash
- Adobe After Effects
- Adobe Illustrator
- Windows Movie Maker 2.1

INSPIRATION
Our university has won many Imagine Cup team awards. We decided to try taking part in it as well. We chose the Design competition because of our interest in the area of graphic user interface, usability, user experience, and conceptual interfaces.

TEAM HISTORY
We study and work together, in LTIA - Applied Information Technology Lab, at Sao Paulo State University. We also drink together!

TEAM EXPERIENCE
We study Design and related areas, and we use it at work as well. So it's kind of what we do. :)

HIGHLIGHTS
Learning new technologies and seeing the project done. We really liked it! Well, the relief of delivering the second round entry too!

GENESIS
We chose the 2nd UN goal because we think that improved primary education can solve many of the world’s toughest problems. We decided to create an application that addresses children's literacy, which is a real problem here in Brazil. We also wanted to use some of the new trends of graphic user interfaces and user experience, like multi-touch screens, gestures and collaborative applications.

CHALLENGES
We decided to create our application in WPF, but we didn’t have experience with it. So we had to learn, and learn fast!

FUTURE PLANS
We plan to continue developing the application, so it can be used by children in schools in the future.

MORE INFORMATION
http://www.youtube.com/watch?v=P7j3YzUQyqk
http://hperticarati.deviantart.com/art/Cheops-interface-119300450
twit us at: twitter.com/nacari or twitter.com/hperticarati
email us: nacari@gmail.com and hperticarati@gmail.com
**TITLE OF PROJECT:** Helping Hand

**PROJECT OVERVIEW**
Our design solution is based on two complimentary systems. Firstly, there is the information system which guides, advises and leads families affected by malnutrition to the development of their own food plot. By gathering traditional methods of cultivation close to villagers and setting up an educational and scientific database, this enhances their ancestral know-how regarding cultivation. This information system is both a rich secured web application and a mobile application. Secondly, there is the communication system which unites families to all local and international actors fighting for the same cause: it aims to create a community based on dialog and sharing. This communication system is a website where visitors can make donations in order to fund part of the kits.

**TECHNOLOGY/SOFTWARE USED**
- ASP/HTML/CSS/Ajax/JavaScript
- Virtual Earth
- Silverlight
- Windows Mobile
- Geolocation.

**INSPIRATION**
The first thing that inspired us is that Microsoft is a cornerstone in the development of computing and internet. For us, this contest is not a traditional contest but a real project that must be considered nowadays. That’s why we feel really involved in the project. The choice of the Design competition was very instinctive as we are interaction design students.

**TEAM EXPERIENCE**
Since we met, we have worked on many interactive design projects. At school, it is our main disciplinary. We also work together outside of school and love experimenting and designing innovative projects.

**HIGHLIGHTS**
In terms of satisfaction, we must say that the best part of the Imagine Cup was the announcement of the Round 2 participants! In terms of project, the amazing part was when we started and ended the prototype our Design solution.

**GENESIS**
During our first research, we were surprised to see that 50% of good quality and cultivable lands were not exploited. After much more research on that point, we were convinced that we had to work hard on it. That’s why we chose to work on finding solutions to eradicate extreme hunger and poverty.

**CHALLENGES**
We think that our main challenge has been to stay realistic during the project. Our idea is not to use too much prospective technologies but to imagine an efficient solution that can be implemented with actual, reliable and already developed technologies. The designer in this project is not a dreamer, but a creative professional that can bring dreams to others.

**FUTURE PLANS**
Our aim is not to launch a new business and win a lot of money. We consider this project as something fundamental and we would be very glad to work closely with Microsoft on it.

**MORE INFORMATION**
- http://pro.clementfaydi.com/microsoft/pc/
- http://pro.clementfaydi.com/microsoft/mobile/microsoft_helping_hand.swf
- http://vimeo.com/4748045 / (Password required: microsoft_ic_09)
- www.clementfaydi.com
- www.mickaeldenie.fr
TITLE OF PROJECT:  The 7th Sense

PROJECT OVERVIEW
Global consumption of natural resources currently exceeds the planet's regenerative capacity by nearly 25 percent and is expected to increase threefold by the middle of the century as our numbers and demands grow. Making 1 ton of paper requires 98 ton of other resources. How to keep our acquired numerical skills, while drastically reducing our consumption of raw materials, energy and fossil resources? By creating a single device that will replace all of them, which could not become obsolete, and whose only functionality's limit would be the imagination of the developers. The 7th Sense device enables to superimpose the digital world on the real environment. Everything around us turns into a Microsoft Surface and offers intuitive interaction and much more, since, this is the first device to enable the viewing of holograms and also enables the sharing of true-life experiences in stereoscopy.

TECHNOLOGY/SOFTWARE USED
- Pico Projector
- LCD Shutter Glasses
- Anamorphic Stereo Projection for Holograms
- 4G (L.T.E)
- R.A.R. (Real Augmented Reality)
- Stereometry
- Gyrometer
- Voice Recognition
- Instantaneous Language Translation
- Wusb
- Triangulation
- Data center
- Instantaneous sign language translation
- Data Processing in Streaming
- Speech Synthesis
- S.A.A.S
- Accelerometer
- Electro Conductivity Pairing (through the skin)
- G.O.D (Games on demand)
- Gyrometer
- Microsoft Tag
- Stereometry
- Triangulation
- Instantaneous sign language translation
- Instantaneous Language Translation
- Voice Recognition
- Wusb
- Accelerometer
- Electro Conductivity Pairing (through the skin)
- G.O.D (Games on demand)
- Microsoft Tag
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- G.O.D (Games on demand)
- Microsoft Tag

INSPIRATION
We are passionate about new technology and we have been following the Imagine Cup for a long time. The Design competition was a great opportunity not to be missed for this project.

TEAM HISTORY
We have been friends for the past few years, and we have naturally joined competences to conduct this project.

TEAM EXPERIENCE
Creating and stage-directing, are my passion. My major motivation: to fully understand the mechanism of human perceptiveness. I am trying to figure out why elements appear magical and others not and finally integrate this principal in my creations.

HIGHLIGHTS
The best moments are evenings with friends watching the countdown of the different rounds. That matched with the excitement of all the different qualifications.

GENESIS
Sustainable development is a subject that cannot leave anybody indifferent. Unfortunately, if a problem does not affect a person directly, it is not that person's problem. Human nature is made like this. Why not create a domino effect to regulate a significant number of these problems? The use of the 7th sense replaces the current electronics gadgets, makes the proliferation of multiple screens unnecessary and printing on paper completely absurd! And all this by offering a novel interaction and freedom of movement!

CHALLENGES
Certainly the time clock of this competition was a challenge because it's ruthless. The challenge was what elements to include and which not to include, based on time. It's like cutting off the arms of a statue you have just sculpted with passion; in order to allow it to pass through the door ... it's very frustrating.

FUTURE PLANS
In our opinion, a project like this requires a lot of partnerships. We would like to let the project live, but keeping an eye on it though. So if there is any opportunity, why not. I personally, would like to work in designing and stage-direction of Microsoft events such as ... the E3 2010 for example.
TITLE OF PROJECT: Angel Maker

PROJECT OVERVIEW
Angel Maker is a mobile application for continuous and fun donations. It is made to change the current donation culture with a cool design.

TECHNOLOGY/SOFTWARE USED
- Microsoft Expression Design
- Microsoft Expression Blend
- Adobe Photoshop
- Adobe Illustrator
- Adobe After Effects

INSPIRATION
Imagine Cup is the global competition for every student around the world and we were interested in this year’s theme for Imagine Cup. We’re familiar with Design and Jeong is majoring in Visual Design in the school.

TEAM HISTORY
We met at the Advertising Club at school and we’ve been falling in love since 2006.

TEAM EXPERIENCE
Jeong studies Visual Design in school and she has some experience with design competitions before. Lee doesn’t have any experiences with Design, but he is full of imagination and has experiences with past advertising competitions.

HIGHLIGHTS
The unique theme has been a highlight. We’ve never seen such a competition that gives us this kind of theme before.

GENESIS
We came up with this submission looking at the current donation system. With a current design and approach, people often think donation is sacrifice and duty. So our question was “Why can we not enjoy it?” So we came up with the mobile application. Nowadays, most people use their mobile phone every day, and at every moment. And we were inspired by overall the overall goals. That’s why we thought that donation is the core solution which can solve all of those problems.

CHALLENGES
Expression tools were not familiar to us. So we had difficulty getting used to using it.

FUTURE PLANS
We’re planning to look around for another competition that interests us, but we don’t have any plan to launch a new business with this project yet.

MORE INFORMATION
http://ssaemhome.egloos.com/
TITLE OF PROJECT: TAT (Technology against Tuberculosis)

PROJECT OVERVIEW
More people die every year of TB virus rather than violent conflicts around the world. In the past years, the United Nations has been advocating the need for proper medical care in developing countries from Africa, Asia and Latin America as a main Millennium Development Goal. It is estimated that between 2000 and 2020 nearly one billion people will be newly infected, 200 million people will get sick and 35 million will die from TB (twice as much as the victims of World War I). The mechanisms, pathogenesis and prophylaxis knowledge is minimal. Students around the world use Imagine Cup as means to focus their energy and creativity on helping, preventing and solving some of these pressing problems. Our team has, thus developed a TAT (Technology against Tuberculosis) website. It is a community website destined to help diagnose the early stages of tuberculosis infection using an advanced expert system and provide vital information and guidance in countries where medical practices and assistance can be a problem.

TECHNOLOGY/SOFTWARE USED
- Expression Design
- Flash
- XML
- PHP

INSPIRATION
This is not our first year at the Imagine Cup competition. We participated in the past in the Software Design, Photography, Web development, Short Film, Embedded or Interface competitions. The Design competition, to date, is our favorite one.

TEAM EXPERIENCE
First of all, one of us already works in the design field and also has two sequent finals in Imagine Cup design competitions.

HIGHLIGHTS
Round 2 has always been the most challenging part of the competition because it has meant lots of work, many hours and long nights spent on solving bugs and problems, developing parts of the application. This brought us even closer together.

GENESIS
Our team thought to develop this submission which is destined to help diagnose the early stages of a killing disease, TB, infection.

CHALLENGES
Only a few technological problems were encountered. Most of the issues were personal ones because our project implied lots of research and interaction with persons in the field who helped us gather all the information and data we needed to complete the application.

FUTURE PLANS
I can’t tell that we will start a business with this project, because it is a non-profit project. We created it to help and inform people on the disease. We do have plans to develop a business.

MORE INFORMATION
www.techatb.com
TITLE OF PROJECT: eXchangeFun

PROJECT OVERVIEW
Our concept of eXchangeFun encourages people to exchange and reuse household items in their communities. The goal is to promote sustainable consumption by encouraging more people to reuse items. In interviews and observations, we found that household items in fair condition are thrown away and unused items are often forgotten in hidden corners. Meanwhile, advertising and marketing strategies encourage people to buy new items. This results in low use of products and high demand for new ones, leading to increased manufacturing to meet people's needs. Manufacturing unavoidably consumes natural resources, emits carbon, pollutes the environment, and affects climate.

We designed eXchangeFun to facilitate community-based reuse in order to slow down consumption. The eXchangeFun provides opportunities for people to discover items through the experience of treasure hunting. The seller's wish list reminds people to trade unused items. Additionally, eXchangeFun allows people to post multiple items easily by tagging them in one picture. The As-Is page encourages renewal and repurposing of items by allowing people to post items with defects. Building upon the trust and feeling of closeness that people have for their community, the design creates more opportunities for reuse. By reducing the disposal of useful items, less trash goes into the landfills and the demand for manufacturing is decreased. If we can maximize the lifespan of items and encourage a culture of reuse and exchange in our communities, we can take a small step towards maintaining environmental sustainability.

TECHNOLOGY/SOFTWARE USED
- Expression Blend
- Expression Design
- Microsoft Powerpoint
- WPF
- Expression Blend and Design

INSPIRATION
As designers, we are interested in creating opportunities for interaction and experience that improve people's lives. Both of us have worked on design projects promoting sustainability. We believe environmental sustainability is an important problem. Imagine Cup provides the technology, opportunities, and learning communities for us to work on this issue.

TEAM HISTORY
We met through the Human-Computer Interaction Design master program at Indiana University. We started off with the idea of creating an inventory of technologies in public space using cameras and got interested in exploring people-people interactions through technology.

TEAM EXPERIENCE
We have completed many design projects through various courses in HCI/design program. Feixing was a member in the Indiana University Sustainable Interaction Research Group lead by Professor Eli Blevis. In the group, she was involved in a design project to promote Perma-culture and Urban Farming. Yujia is in Everyday Computing Research Group led by Professor Shaowen Bardzell. This group focuses on HCI design in everyday life, especially in domestic space.

HIGHLIGHTS
Being able to immerse ourselves in people's daily lives and explore how we consume in real life. Trying to explain design in the simplest terms, in 2 minutes of video with limited words.

GENESIS
We were inspired by the Millennium Development Goal of Environmental Sustainability. It is tough to get people to act sustainably because making sustainable choices over other options often requires greater effort, more money, and strong determination. Instead of preaching sustainability, our approach to slow down consumption is a win-win solution meeting people's needs and the sustainability goal. We were encouraged by certain sustainable consumption behaviors like trading and repurposing used items. These behaviors benefit people's lives by helping them find things they want for a cheaper price. However, these local reuse activities are not well facilitated by current solutions such as Craigslist or community bulletin boards. Thus we have designed eXchangeFun, a platform to facilitate the trade and exchange of household items within a community.

CHALLENGES
It is very challenging to learn new software and develop working prototypes in a relatively short time.

FUTURE PLANS
Yes. We are planning to work on the strategic plan of eXchangeFun and start implementing it in local communities.
It’s been a long journey to the Imagine Cup Worldwide Finals and chances are you’ve already met someone on the Microsoft Academic team along the way. We are a worldwide team of over 100 people who spend our days working with students and faculty to develop Microsoft’s relationship with academia.

Our mission is to empower students to achieve their hopes and dreams in both their personal and professional lives. The Imagine Cup is just one of the programs that we work on throughout the year.

Other programs include:

**MSDN Academic Alliance** offers easy, complete, and inexpensive solutions to keep academic labs, faculty, and students on the leading edge of technology. MSDN AA’s Developer Academic Alliance (AA) and Designer Academic Alliance (AA) subscription programs are specifically designed for higher-education departments that use technology in support of science, technology, engineering, mathematics, and design (STEMD) courses. Memberships provide access to Microsoft® platforms, servers, and developer and designer tools. www.msdnaa.com

**DreamSpark** is simple; it’s all about giving students Microsoft professional-level developer and designer tools and training - at no charge. www.dreamspark.com

**Faculty Connection** is a resource site for technology educators that offer access to Microsoft® software, curriculum resources, the latest research and videos of academic relevant topics. www.microsoft.com/faculty

**Microsoft Student Partners** is a global initiative that provides university students with a passion for technology with real-world skills and resources to help them prepare for successful careers. http://student-partners.com/

**Microsoft Students to Business Program** helps students obtain the skills and competencies needed for an IT career through learning resources and connections to local Microsoft industry partners. www.microsoft.com/students2business/home

**Microsoft IT Academy Student Pass** is a special no-cost online learning resource for students. IT Academy Student Pass provides free e-learning courses to verified students who are interested in learning Microsoft technologies. https://www.itastudentpass.com

**Microsoft IT Academy** connects the world of education to the world of work by enabling students to acquire new technology skills in an academic setting. Find the IT Academy contact at your school http://www.microsoft.com/Education/MSITAcademy/ITAPLocator.mspx

**Student Tech Clubs** is the place where people just like you get together to learn about the latest technology, share ideas and have fun. You can start a Student Tech Club at your school today. You get access to information on the latest technology, local speakers and support materials to make your club a success. It’s your opportunity to be a leader while you explore new technology. www.studenttechclubs.com

We also give regular technical presentations on school campuses throughout the world and bring your feedback to the product development team, giving guidance on Microsoft’s next generation technologies.

We wish you all luck, but most of all, we hope that you have a great experience.

The Microsoft Academic Team
Microsoft would like to thank the following judges for their support of the Imagine Cup 2009 World Finals

**Software Design**

**Captains**
- Dennis Anderson, Professor of Information Systems, Pace University, United States
- Roger Lawrence, Entrepreneur, Australia
- Rob Miles, Lecturer, Department of Computer Science, University of Hull, United Kingdom
- John Abela, Technical Director, Accent Software and Lecturer, University of Malta
- Hanan Abdel Meguid, General Director, Egyptian Institute of Information Technology (EIIT), Egypt
- Manar Al Hashash, Chief Solution Officer & Board Member, LINMC/oNET, Kuwait
- Talal Al Rahbi, Producer, Girhas TV, Oman

**Judges**
- Anshad Ali, Director General, NUST Institute of Information Technology (NITT), Pakistan
- Carol Lee Anderson, Director (Founder & Chair), Women in Technology New Zealand
- Ricardo Arildo, Associate Professor, Institute of Computing, University of Campinas, Brazil
- Jorge Becerra, Researcher, Polytechnic School of São Paulo University, Brazil
- Guillaume Belmas, Manager ALM and .NET Expertise Division, Exakis, France
- Tiago Cardoso, Electrical and Computer Engineering at New University of Lisbon, Portugal
- Steve Cha, Professor, Computer Science and Engineering Department, Korea University
- Nannette Cuttiff, Vice President and CIO, Pacific Service, United States
- Brian Donnellan, IS Lecturer, Cairnes Graduate School of Business and Law, NUI Galway, Ireland
- Elizabeth Marie Ehlers, IS Lecturer, Cairnes Graduate School of Business and Law, Ireland
- Tadeusz Golonka, Co-founder, Managing Partner and CTO at BDP Ltd., Poland
- Edward Granger Happ, Unified Chief Information Officer, Save the Children, USA & UK, and Chairman of the Board, NetHope, Inc.
- Jeffrey Huang, Director, Media and Design Laboratory, Swiss Federal Institute of Technology (ETH), Switzerland
- Daisy Hung, Professor and Institute Chair, Institute of Cognitive Neuroscience, National Central University, Taiwan
- Kauk Viktor Ivanovich, General Director, Ukrainian Association of Distance Education, Ukraine
- Edwin Jongma, Capability Directory Solution Development, Avanade, Netherlands
- Martin Kulo, CEO, Kodakewitt Ltd, Bulgaria
- S. N. Maheshwari, Professor of Computer Science Department of Computer Science and Engineering, India
- Baltasar Fernandez-Manjon, Associate Professor, Department of Software Engineering, Spain
- Ahmed Shawky Mousa, Program Manager, Ministry of Communication and Information Technology and Information Technology Industry Development Agency (ITTIDA), Egypt
- Kotaro Nakayama, Assistant professor, Center for Knowledge Structuring in the University of Tokyo, Japan
- Hong Nie, Vice President & Professor, Nanjing University of Aeronautics and Astronautics (NUAA), China
- Jose Barata Oliveira, Professor, Electrical Engineering in Sciences and Technology at New University of Lisbon, Portugal
- Carlos A. Osorio Urria, Researcher, Universidad Adolfo Ibáñez School of Business, Chile
- Ken Orëz, CEO, I-CON Technologies, Turkey
- Jon Perera, General Manager of Strategy and Audience Marketing, Microsoft
- Gregory Renard, RDI Manager, CTO Hypercentre, Belgium
- Giseng Sade, Technical Evangelist, Microsoft Corporation, United States
- Nick Sirlin, Co-Founder & CTO, Musigy, Russia
- Etienne Tremblay, Associate Director, Microsoft Technologies Center, Canada
- Klaus Zappfenblay, President, University of Applied Sciences Hamm-Lippstadt/Germany, Germany

**Embedded Development**

**Captain**
- Scott Davis, Academic and Community Programs for Windows Embedded, United States

**Judges**
- Olivier Bloch, Technical Evangelist, Microsoft Corporation, United States
- Tian Fu Chen, Professor, National Chung Ching University, Taiwan
- Jürg Gutknecht, Computer Science Department, ETH, Switzerland
- James Habl, Professor School of Electrical and Computer Engineering, Georgia Tech, United States
- Ahmad Yoosif Bin Hassan, Vice Chancellor, UTEm, Malaysia
- Thierry Joubert, CTO and Co-Founder, THEORIE, France
- Sam Phung, VP Sales & Marketing, ICP Technology, United States
- Krish Ramanathan, Dean, Research & Development, Indian Institute of Technology, India

**Game Development**

**Captain**
- John Nordiner, Senior Research Program Manager, Microsoft Research, United States

**Judges**
- Ian Bogost, Associate Professor, School of Literature, Communication and Culture, The Georgia Institute of Technology, United States
- Mia Consalvo, Associate Professor and Director of Graduate Studies, School of Media Arts & Studies, Ohio University, United States

**IT Challenge**

**Captains**
- Chris Amaris, Partner & CTO, Convergent Computing, United States
- Rand Morimoto, President & CEO, Convergent Computing, United States
- Valy Grevau, Lecturer, “Alexandru Ioan Cuza” University of Lasi, Romania
- Jeff Guillet, Microsoft MVP and Senior Consultant, Convergent Computing, United States

**Robots & Algorithm**

**Captain**
- Rogerio Panigasi, Academic Programs Manager, Microsoft, United States

**Judge**
- Michael Wyrzykowski, Software Development Engineer, Microsoft, United States

**MashUp**

**Captain**
- Rogerio Panigasi, Academic Programs Manager, Microsoft, United States

**Judge**
- Fernando Huapia, Senior Software Developer, Equifax R&D Center, Chile, Argentina

**Photography**

**Captain**
- Leandro Doapo, Academic Programs Manager, Microsoft, United States

**Judges**
- Colin Finlay, Partner, Definitive Stories, United States
- Graham Waite, Commercial and Art Documentation Photographer, Egypt

**Short Film**

**Captain**
- Michael Johnstone, Director, New Business Group, Paramount Pictures, United States

**Judges**
- Sherif El-Atia, Film Professor, American University Cairo, Egypt
- Elizabeth Kirkcay, Director of Physical Production, Paramount Pictures, United States
- Joanne McLaughlin, Senior Executive Director, Digital Media, Weston Mason, United States

**Design**

**Captain**
- Surya Vanka, Manager of User Experience Excellence, Engineering Excellence, United States

**Judge**
- Beata Bochinska, Manager, Institute of Industrial Design, Poland
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We would like to thank the following companies and organizations who have made the 2009 Imagine Cup possible.

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Paramount Digital Entertainment (PDE) is a division of Paramount Pictures Corporation. PDE develops and distributes filmed entertainment across worldwide digital distribution platforms including online, mobile and portable devices, videogames, virtual worlds and emerging technologies.

Paramount Pictures Corporation (PPC), a global producer and distributor of filmed entertainment, is a unit of Viacom (NYSE: VIA, VIA.B), a leading content company with prominent and respected film, television and digital entertainment brands. The company's labels include Paramount Pictures, Paramount Vantage, Paramount Classics, DreamWorks, MTV Films and Nickelodeon Movies. PPC operations also include Paramount Digital Entertainment, Paramount Home Entertainment, Paramount Pictures International, Paramount Licensing Inc., Paramount Studio Group, and Worldwide Television Distribution.

Microsoft XNA Team
XNA Game Studio 2.0 enables hobbyists, academics, and independent game developers to easily create videogames for Windows and Xbox 360™ using optimized cross-platform gaming libraries based on .NET. Combined with an active membership in the XNA Creators Club (available from Xbox LIVE® Marketplace), you can also create, debug, and play games on your Xbox 360 console.

Microsoft Learning
Microsoft Learning builds innovative training products that enable you to make the most of your investment in Microsoft products and technologies. Microsoft Learning offers a diverse range of programs that includes Microsoft training and certification, Microsoft Press books, instructor-led training, skills assessments, and E-learning solutions. From utilizing cutting edge technology to advancing world-class training, Microsoft Learning provides the tools to help you stand out in whatever field you choose.

Microsoft Unlimited Potential
Unlimited Potential is Microsoft's long-term commitment to provide relevant, accessible and affordable Information and Communication Technology (ICT) to underserved people around the world. To better serve these people, Microsoft Unlimited Potential combines advanced technologies and strong partnerships with governments, international organizations, non-governmental organizations (NGOs), educators, and community and business leaders. Microsoft aims to reach the next 1 billion people by 2015 by exploring solutions in three key areas:

- Transforming education
- Fostering local innovation
- Enabling jobs and opportunities

In these three areas, Microsoft Unlimited Potential can create the greatest possible impact by empowering a virtuous cycle of sustained social and economic development.

To learn more visit: www.microsoft.com/unlimitedpotential

Microsoft Corporation
Founded in 1975, Microsoft (Nasdaq “MSFT”) is the worldwide leader in software, services and solutions that help people and businesses realize their full potential.

For more information, visit www.microsoft.com.

At Microsoft, we believe in the potential of software and technology to help people and businesses around the world foster environmental sustainability. To discover how Microsoft and its partners use innovative technologies and responsible business practices to address environmental challenges worldwide, please visit http://www.microsoft.com/environment/.

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Interoperability enables innovation and opportunity. Job market success comes easily to those who can recognize the opportunity for a mixed-technology solution and effectively leverage the interoperability of Microsoft products with other products. “Bright minds are constantly developing solutions that enable new interoperability scenarios, such as sharing media any format across any number of devices, or mashing up new cross-platform applications and services on the Internet. To learn more visit http://www.microsoft.com/interop/.”

The Interoperability Team sponsors the Software Design Interoperability Award.

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Microsoft Robotics Developer Studio (MSRDS) is a Windows based environment for academic, hobbyist and commercial developers to easily create robotics applications across a wide variety of hardware. MSRDS provides an end-to-end robotics development environment which includes: Visual Programming Language, Visual Simulation Environment, lightweight services orientated runtime, and sample code/services/documentation to help get you started. www.microsoft.com/robotics

Windows Mobile

Meet Windows Mobile. The day you bring home a Windows Mobile phone, you can quickly have it working with your Windows PC and use it to access the same e-mail accounts you’ve had for years. Stay in touch with the people in your life—no matter how they like to chat. Don’t miss another anniversary or birthday. Take your music to the gym. Stay entertained while you wait for your kids. Take the picture that would have slipped away. Get it all done with a Windows Mobile phone. Check it out at http://windowsmobile.com.

Mesh Services and Live Framework

Live Services brings the internet, software, and services together to provide a unique way for connecting with one of the largest audiences on the web – the Windows Live audience. Live Services provides user and data centric services for building rich and engaging social experiences that allow people to communicate, share, and keep up with people and things that are most important to them. Over 500 Million people use Windows Live as the place to connect to their friends and to the things they really care about. Live Services provides developers access to the Windows Live user base and the 30bn+ relationships that make up this massive audience. Live Services provides exciting new opportunities for developers that bring traditional client and web applications to life and introduce new classes of applications to the developer toolkit. The Live Framework provides a uniform way to program against Live Services and access to Mesh technologies for sync capabilities.
The Suzanne Mubarak Women’s International Peace Movement

The Suzanne Mubarak Women’s International Peace Movement is a non-profit, non-governmental international association established in 2003. It focuses on the positive and holistic aspects of peace, helping to forge alternative communication networks, developing capacities, creating avenues for cooperative action and making silent voices heard! The Movement’s main objective is to enhance the conditions conducive to sustainable peace and human security.

http://www.womenforpeaceinternational.org/

Ministry of Communications and Information Technology

Information and communications technology (ICT) has become a determinant feature of the world we live in, representing the backbone of societies around the globe including, of course, Egypt. Since its establishment in 1999, the Ministry of Communications and Information Technology (MCIT) has worked steadfastly to unleash the potential of this sector. As a result, Egypt today has a state-of-the-art communication system, including three mobile phone companies servicing a subscriber base that has seen exponential growth.

The rise of the Egyptian ICT sector has had positive repercussions for the economy as a whole. Egyptian telecommunication companies are now offering their value-added services abroad while, on the grass root level, “Access for All” programs such as IT Clubs and PCs for Everyone have created a generation that cannot imagine life without the Internet. Developing e-content and promoting further innovation is the only way to respond to this generation’s seemingly insatiable appetite for new products and information.

http://www.mcit.gov.eg
Link Development

LINK Development combines the latest in software development with creative design skills to provide a range of solutions and services such as portals & intranets, e-commerce, enterprise integration, Microsoft Dynamics CRM & GP, Helpdesk solutions, infrastructure solutions such as unified communications, virtualization and IPTV, serving governments, multinationals and local companies in Europe, Middle East and Africa.

The company is a Microsoft Gold Certified Partner in 5 competencies and has achieved ISO 9001:2000 and CMMI Level 3 Certifications.

http://www.linkdev.com/

EgyptAir

EGYPTAIR is the world-renowned national airline of Egypt, based in the cosmopolitan city of Cairo. In more than 76 years, EGYPTAIR has experienced extraordinary growth, taken the lead to be the first airline in the Middle East and Africa and the seventh in the world to join IATA and become a treasured brand.

In July 2008, EGYPTAIR has become a member in Star Alliance, the biggest and the most prestigious alliance in the world, to offer to its customers more than 975 destinations around the globe through Star Alliance network.

In December 2008, EGYPTAIR inaugurated the 4th Pyramid in Cairo, the new state-of-the-art terminal 3 to provide to our customers the optimum services.

http://www.egyptair.com/

ITIdA

Situated on the outskirts of Cairo in the 600-acre modern business park Smart Village, the Information Technology Industry Development Agency (ITIDA) is dedicated to promoting, developing and growing Egypt’s information and communications technology industry with a particular focus on business process outsourcing. As a self sustainable agency, ITIDA plays a leading role in enhancing the Egyptian cyber security and data protection framework towards a more secure e-Business and Business Process Outsourcing (BPO) services positionning.

http://www.itida.gov.eg/

NTRA

The National Telecommunications Regulatory Authority (NTRA) was established in accordance with the provision of Law No. 10, for the year 2003 ‘the Telecommunications Regulation Law’ as a national authority to administer the telecommunication sector, considering transparency, open competition, universal service and protection of user rights as a general outline for NTRA scope of work.

http://www.tra.gov.eg/
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A Message from Warsaw

It is our honour and a challenge to organize the final of the Imagine Cup 2010 competition.

Imagine Cup is the largest international technology competition in the world, addressed to students of information technology. Imagine Cup develops creativity, enables us to find innovative solutions for many global problems and improve our reality.

Holding such a prestigious event in Warsaw is a great inspiration for young Polish IT scientists—a great opportunity to learn not only the achievements of their peers from around the world, but also to compete alongside them in these contests.

In previous editions of this event, the Poles were on the podium eleven times, including five times at the highest level.

Poland has been implementing a programme of knowledge economy, so that our country is an ideal place to carry out innovative activities.

I hope that the 2010 Imagine Cup finals in Poland will be a great opportunity to use the creative potential of students and inspire young people to engage in modern information technologies and techniques. We are living in an era in which information and innovation are more precious than money.

I wish good luck to all the participants.

Waldemar Pawlak
Deputy Prime Minister, Minister of Economy
The Republic of Poland
IF YOU WANT TO INVEST IN BRAZIL, CHOOSE THE BANK THAT IS THE SIZE OF BRAZIL: BRADESCO, WITH MORE THAN 40 MILLION CUSTOMERS AND OVER 70 THOUSAND OUTLETS AND ATMs.

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