

TU and WU students win national Imagine Cup – finals

Three students from the Vienna University of Technology (Distributed Systems Group) and the Vienna University of Economics and Business Administration convinced the jury of this year's Imagine Cup competition of their solution. The idea was to encourage people to live a healthier lifestyle by increasing the levels of fun in their sporting activities and so giving them more incentives to get moving. The three winners will represent Austria at the world final in New Delhi, India, where they will introduce their project to an international audience.

Vienna (TU/WU) - The theme of the technology competition sponsored by Microsoft that started some months ago is "Imagine a world where technology enables us to live healthier lives". Students from all over the world were called to compete in six categories ranging from algorithms, to interface design and even short film. This year a team consisting of student from the University of Technology (Alexander Duggleby, Keng Ly) and the University of Economics in Vienna (Corina Dobrea) succeeded in convincing the national jury in the oldest and most prestigious category - software design. Hence the team will have the opportunity to present their idea and its implementation at the competition's world finals in New Delhi, India, to an international audience.

The Austrian Jury consisted of business and academic representatives, IT professionals and a journalist. They reached a decision after assessing the originality, the technical innovation, the maturity and the social benefits of the project. Among the evaluation criteria were the problem definition, solution design and implementation as well as the presentation.

The student's idea is to offer richer incentives for sporting activities for all generations. They have achieved this goal by combining virtual worlds with real physical gameplay. This way the players enjoy the entertainment they are familiar to from PC games and on the other hand they have to invest some physical effort in order to control the game.

One example for context information provided to the game is the actual player's location which is retrieved using the Global Positioning System (GPS). This alone already allows a large range of context guided games. The team is also already thinking about additional context attributes that could be included. At the finals the team presented a prototype game called Blocks. Two players move on an area which is filled with virtual fields and as the goal is to step on as many fields as possible. One of the project's challenges was to stabilize the inaccurate GPS readings but at the same time not to overstrain the mobile devices' limited resources.

The project is based on a number of different Microsoft Technologies such as .NET Framework and Compact Framework 2.0. Alexander Duggleby, one of the developers and previous year's finalist says that: "CAPS was designed and implemented as a framework from the beginning. This way we primarily provide an infrastructure for game developers that enables them to build games that user context-aware elements such as the players' positions. However, we have also developed some prototypes to show the possibilities of CAPS. "

The contest is now in its fourth year and is open to students all over the world. The common goal is to find solutions to the society's problems and to transform their ideas into real projects. Since a part of the CAPS team has already had the opportunity to gain experience at the last year's Imagine Cup final, they are aware of the fact that beside the technical aspects, the business realization of the project is also of major importance. Corina Dobrea, student of the Vienna University of Economics and Business Administration, about the business idea of CAPS: "We are convinced that our project has a great potential for sports activity in the future, regardless of age and social

background. We intend to offer CAPS to a large number of interested parties: ranging from stressed managers to school children. The games our platform makes possible, redefine the word "game world" and do not only encourage physical activity but also further types of social interaction, such as playing in strategic groups. We are planning to promote CAPS as a Corporate Social Responsibility (CSR) opportunity to enterprises as well as making it appealing for the sports classes in school."

The faculty advisor Univ.-Prof. Dr. Dustdar, about the project: „This project is an impressive example of how a combination of creative ideas, technology and research effort in context-awareness can be used to provide an added value for the society as well as entertainment and fun.“

Links:

Projekt CAPS:

<http://www.mycaps.at>

Distributed Systems Group:

<http://www.infosys.tuwien.ac.at/>

Imagine Cup:

<http://www.imaginecup.com>