

## **New e-Learning materials to improve mathematical logic abilities of students and workers**

*Tampere University of Applied Sciences (TAMK) is leading an international team developing learning materials in the field of mathematical logic and based on real-life applications of mathematical logic. The materials will be published and used throughout the EU.*

Product developers have a desire to make products more user-friendly and logically functional. Good mathematical skills help develop the logical and critical thinking skills necessary for good design and implementation of software and technology products.

A new project entitled “Mathematical and Applied Logic – MALog” led by TAMK is addressing the growing need for new learning materials and teaching resources for mathematical logic.

The project has received funding from the EU Lifelong Learning Programme and involves institutions throughout the EU: in addition to Tampere University of Applied Sciences the partners are the University of Warwick in the UK, the Technical University of Civil Engineering Bucharest in Romania, Hervanta High School in Tampere and the George Cosbuc Bilingual High School in Bucharest.

The project will produce theoretical and practical tutorial material in mathematical logic, including practice assignments, visualizations and simulations. The project will enhance the learning process in an innovative way by making an individual adaptive learning path available for each learner. Links between the learning materials will further enhance their quality and usefulness by allowing learners to discover related material and relevant real-life problems. TAMK and the other higher education project partners are developing over sixty units of learning materials with their industrial partners. Some of these are practical examples of systems that demand logical reasoning, such as the management of traffic lights at street intersections, the logic of railway points, and alarm systems for safety belts.

The learning material being developed will be freely available on-line and will enable school children, technology students and technology professionals to further develop their mathematical skills. The material produced will be available in English, Finnish, Romanian, French and German.

The MALog project is part-funded by the EU Lifelong Learning Programme and the results are expected in 2012.

*More information:* [www.malog.org](http://www.malog.org)

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