

ABSTRACT:

## **Grid in the education**

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Budapest University of Technology and Economics (BME) – amongst some Hungarian members – participates in the EGEE project, which is the major Grid project in Europe, led by CERN. Therefore we add to the EGEE infrastructure computational and storage resources already used by research and educational activities at the university.

Our shared resources that are integrated to the EGEE infrastructure are designed to be scalable and easy-to-manage. Scalability appears in the simplicity of connecting additional resources and load balance. Easy management is brought by central configuring and monitoring. Assuming that the EGEE middleware (gLite) and the security infrastructure need to be installed on all worker nodes, the design of this system is far more complex than that of traditional clusters.

We provide an opportunity for the BME students to study Grid systems in theory, and our infrastructure in practice in lab as well by submitting simple jobs. Since Grid users usually access to the services via *virtual organizations*, we created one for the our students.

In this paper we present the infrastructure built at the department, then we demonstrate the working by following the life cycle of a sample application, and we summarize our experiences came up during the development of the system.