

P38: Akademia Gorniczo-Hutnicza im. Stanislawa Staszica w Krakowie - AGH (Poland)

Description of expertise & activities

The AGH University of Science and Technology (<u>www.agh.edu.pl</u>), founded in 1919, is a non-profit, national government educational organization, ranked as one of top Polish universities involved in research and education in information technologies. The University consists of 15 Faculties and employs about 2700 faculty members serving nearly 30 000 students within undergraduate, postgraduate and continuing education programmes. Total R&D expenditures (for 2004) are over 22 500 000 \in

The Department of Telecommunications (DoT, <u>www.kt.agh.edu.pl</u>) is a part of the Faculty of Electrical, Automatic Control, Computer and Electronic Engineering, and is an important centre for education and research in communications technology focusing on high-speed networking and services to e-world. DoT has been involved in many research and consulting activities concerning optical networking, optimisation of multi-layer network architectures and services for optical-based environments. Relevant topics related to optical communications are architectures and design of optical core and access networks, resilience and reliability in optical networks, control plane, management of multi-protocol networks, strategic planning of next-generation networks. The DoT employs 40 faculty members (5 professors) and supervises about 300 students. Each year approximately 100 MSc and 6 PhD students are graduated.

The department is involved in research funded by a number of sources: direct industrial funding (Polish telecoms and mobile operators, Motorola, Nokia, Alcatel, Polish independent TVs), institutional funding from National Science Foundation. Examples of institutional funding are: COST 242, 4th Framework (BBL and BTI projects), 5th Framework (LION and Moby Dick), 6th Framework (NOBEL, Daidalos, E-NEXT, EURO-NGI and ePhoton/ONe projects).

Tasks within BONE

WP00	General Project Management
WP01	Organization of lectures on different aspects of telecommunications, promoting permanent education.
WP02	Improvement of curriculum and teaching materials.
WP11	Future optical/Ethernet/MPLS/IP based core network with QoS guarantee. Evolution of metro network.
WP12	Service management, service billing models
WP13	Resilience in access network
WP21	QoS-aware fault tolerance schemes in service oriented optical architectures
WP22	Improved routing mechanisms for traffic engineering in the optical/Ethernet/MPLS/IP network

Key personnel

Andrzej R. Pach received the M.S. degree in electrical engineering and the Ph.D. degree in telecommunications from the University of Mining and Metallurgy, Cracow, Poland, in 1976 and 1979, respectively, and the Ph.D.Hab. in telecommunications and computer networks from the Warsaw University of Technology in 1989. In 1979, he joined AGH-UST, where he is currently a Professor and Chair. He is Technical Editor for IEEE Communication Magazine. His research interests include design and performance evaluation, especially quality of service and network performance of access networks wireless LANs. He actively participated in COST, COPERNICUS, ACTS, ESPRIT and IST European programs. He is an author of 170 publications and 6 books.

Krzysztof Wajda is assistant professor at AGH University of Science and Technology. He was involved in a few international projects: COST 242, Copernicus ISMAN, ACTS 038 BBL, TEMPUS JEP N° 0971, IST LION, IP NOBEL, NoE e-Photon/ONe(+), Leonardo da Vinci (JOINT and ET-NET). Main research interests: traffic management for broadband networks, multimedia services, performance evaluation, network reliability, control plane. Dr Wajda is the author (or coauthor) of 6 books and over 100 technical papers.

Artur Lasoń received his M.Sc. in Telecommunications from AGH in 1992 and Ph.D. degree in computer science in 1999. He is responsible for lectures, projects and laboratories from the area of the fibre optic communication and broadband access networks. He was involved in: Copernicus ISMAN, ACTS 038 BBL, IST LION, IP NOBEL and NoE e-Photon/ONe. Artur Lason is the co-author of 4 books and over 50 technical papers.