P18: Groupe des Ecoles des Télécommunications - GET (France)

Description of expertise & activities

The GET (Groupe des Ecoles des Télécommunications) is a public administration attached to the French Ministry of Industry. It coordinates the most prestigious French Engineering schools in the field of Information and Communication Science and Technology, including ENST (Télécom Paris), ENST Bretagne and INT. GET is a federation of 4 to 10 Research Departments in each GET school, in the following areas:

- Technologies and components: optics, microwave, radio, electromagnetism, electronics, microelectronics, VLSI, MEMs, design and architecture.
- Communication, Signal and Image processing: information theory, coding, modulation, detection, compression, classification, speech recognition and synthesis, vision, biometry.
- Computer science, software: architecture, operating systems, compilation, agents, objects, software engineering, cognitive sciences, databases, data mining, natural languages.
- Protocols and Networks: queuing theory, distributed systems, protocols design, specification, validation, routing, multicast, QoS, administration, planning, intelligent, active networks, security.
- Social sciences, law, economy of ICT: micro and macro economical models, competition, industrial strategy, digital economy, tariffs, investment, innovation, information systems, regulation, user behavioural models.

GET features 450 full-time professors, 1000 part-time lecturers, and 3000 students with 1000 graduates per year and 450 PhD students. A total of 50 nationalities are represented within the GET that has 30 international partner universities. The research activities of the Computer Science and Network Department of GET/ENST dealing with optical networks are focusing on the design of core WDM optical networks and on traffic management in next generation optical access networks.

Tasks within BONE

The GET contribution to the BONE Network of Excellence will be provided by research teams belonging to GET/ENST in Paris and to GET/ENST-Bretagne in Brest. The former team will be involved in the design and testing of optical switching systems (WP14), the definition of innovative control planes for next generation WDM-PON access systems (WP13), and in optical network resources virtualization (WP21). The latter team will contribute to teaching (WP02), transmission techniques (WP15) and optical interconnects (WP25).

Key personnel

Prof. Maurice Gagnaire will be the coordinator of GET activities within BONE. He leads a research team within the computer science and networks department of GET/ENST involved in optical networking. He has published numerous papers in IEEE or IFIP journals dealing with WDM optical networks planning and traffic engineering, both in core networks and in access networks. He has authored or co-authored four books in English and four books in French in these domains. He has served as an expert for the Flemish Government of Belgium and for the National Science Foundation of the USA. He has co-chaired multiple IFIP and IEEE conferences like the ATPON Symposium of the Globecom 2006 conference. He is a member of WG6.10 of IFIP (Photonic networking) and of ONTC (Optical Network Technical Committee) of the IEEE. He is the French representative in the COST 291 action “Towards Digital Optical Networks”. He was the coordinator for GET within the e-photon/ONe+ Network of Excellence.