



P21: Research Academic Computer Technology Institute - RACTI (Greece)

Description of expertise & activities

RESEARCH ACADEMIC COMPUTER TECHNOLOGY INSTITUTE is a non-profit Research Organization, closely affiliated to the University of Patras. It is a financially and administratively independent research institute, currently under the supervision of the Hellenic Ministry of Education. RACTI constitutes an integrated environment of scientific research, design and development of products and solutions. In continuous interaction with the academic community, the national and European informatics industry, the international scientific community and the public sector, RACTI has evolved to an internationally renowned research institution in Computer Science, Computer Engineering and Technology. RACTI is operating according to the private sector regulations and is governed by its Board of Directors. Most of the funded research comes from the competitive programs of the EU, while the Hellenic private sector's participation in commissioning projects to RACTI exhibits a positive gradient over the last years. Also, RACTI has been serving as the official technical consultant of the Greek state, undertaking major, large-scale projects. More than 300 scientists, engineers and other staff support its activities and daily operation.

RACTI's Research Unit I (RU-1) conducts research in Computer Science, Communications Networks and their relevant technologies and applications. Basic thematic areas of interest include important aspects of optical and wireless networking, high speed protocols and services over reconfigurable, user-centric networks capable of providing efficient communication at the projected multi terabit speeds. Other problems that R&D effort is devoted include QoS routing, grid computing, interconnection networks, resource discovery and fault tolerance.

Research Unit 1 consists of 5 Faculty Members, 4 PhD Researchers and 20 Engineers-PhD Students. The group has strong cooperation with other research centres, universities, industrial partners and important scientists worldwide.

Tasks within BONE

WP11	Network and Node Architectures
WP12	End-to-end service engineering and resources coordination
WP14	Research on new switching paradigms, novel switch architectures and optical buffer schemes.
WP21	Service aware path computation algorithms, Optimization of network and non-network resources
WP22	GMPLS routing algorithms
WP24	Design and evaluation of anycast scheduling and routing for applications aware networks
WP25	Design of novel optical interconnecting for computing systems

Key personnel

Kyriakos Vlachos is professor at the University of Patras, Greece and a senior research at RA-CTI institute, where he is involved in research on communication networks. His current interests are related to broadband communication networks (IP, G-MPLS, optical packet and burst switching, routing and signalling algorithms)) He has published more than 70 journal or conference papers in this field.

Manos Varvarigos is professor at the University of Patras, Greece and the director of Network technologies sector (NTS) of RA-CTI institute. His current research interests include broadband network technologies, switch architectures and wireless, ad-hoc networks. He has published more than 100 journal or conference papers in this field.

Pavlos Spirakis is professor at the University of Patras, Greece and the general director RA-CTI institute, which through its involvement in pioneering research and development projects, has a major role in the development of network technologies and telematic services in Greece. Prof. Spirakis has received many awards for his pioneering achievements in the field of computer science and has published more that 100 journal or conference papers in this field.