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Dependable and Adaptable Networks and Services

13th Open European Summer School and
IFIP TC6.6 Workshop, EUNICE 2007
Enschede, The Netherlands, July 18-20, 2007
Proceedings

Volume Editors

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Library of Congress Control Number: 2007930222

CR Subject Classification (1998): C.2, C.3, D.4, D.2, H.4, H.3, H.5, K.4

LNCS Sublibrary: SL 3 – Information Systems and Application, incl. Internet/
Web and HCI

ISSN 0302-9743
ISBN-10 3-540-73529-1 Springer Berlin Heidelberg New York
ISBN-13 978-3-540-73529-8 Springer Berlin Heidelberg New York

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© Springer-Verlag Berlin Heidelberg 2007
Printed in Germany

Typesetting: Camera-ready by author, data conversion by Scientific Publishing Services, Chennai, India
Printed on acid-free paper SPIN: 12088300 06/3180 5 4 3 2 1 0

Preface

The main goal of the EUNICE Summer School is to give young researchers, and particularly PhD students, the opportunity to present their work at an international level. The EUNICE Summer School also seeks to offer comprehensive and inspiring invited talks from experienced experts in the field, providing a context for discussions on ongoing research and new challenges.

The EUNICE Summer School is an initiative of the European University Network of Information and Communication Engineering, or EUNICE Network for short. Although the summer school events are organized by the member institutions taking turns, submission to and participation in the events are open to researchers outside the EUNICE Network.

The 13th EUNICE Summer School returned to Enschede, The Netherlands, where it was hosted earlier in 2000. Back in 2000, the theme of the summer school was ‘Innovative Internet Applications.’ Much has changed since then: wireless network technologies have become a constantly growing part of the Internet infrastructure, and increasingly smaller and more powerful computing devices with flexible connectivity open the possibility of new services and applications.

The EUNICE 2007 theme, ‘Dependable and Adaptable Networks and Services,’ linked to this change and how it affects and is affected by research in the field of information and communication technology. One of the main challenges in the next decade will be to make the Internet and the services that are provided on top of it more dependable and adaptable. Research on this theme is needed for fixed, wireless and ad-hoc networking, ubiquitous communication and computing, sensor networks, and context-awareness. While individual mobile applications with context-aware and personalized features emerged, at the same time many challenges for network and service architectures were imposed concerning integration, interoperability, management, provisioning, reliability and security. On the one hand research has to make available a sound understanding of these applications and their supporting service and network architectures. On the other hand, research should produce service and network infrastructure solutions to be able to provide the necessary quality of service for the envisioned applications.

We received many submissions on these topics, but unfortunately could only accept 17 papers for presentation at the summer school. A fair evaluation and selection of papers was only possible thanks to the first-class reviews, at least three per submitted paper, from our Program Committee members. The accepted papers were grouped as follows in sessions for the single-track technical program: (1) Middleware and Supportive Services, (2) Context-Awareness, (3) Voice over IP, (4) User Behavior, Security and Legal Aspects, (5) Performance Aspects, and (6) Novel Architectures. This technical program was complemented with four invited keynotes.

We would like to take this opportunity to express our thanks and gratitude to the sponsors and supporters of the 13th EUNICE Summer School: IFIP TC6 Working Group 6.6, IEEE Communications Society, Euro-NGI, EMANICS, Springer, NWO, and CTIT.

Many people worked very hard to make this summer school a success. Special thanks go to the Program Committee members for their efforts necessary to maintain the high-quality standard of the EUNICE Summer School, to Annelies Klos for her essential support in to the local organization, and to Remco van de Meent for his contribution during the preparation of the conference proceedings.

May 2007

Aiko Pras
Marten van Sinderen

EUNICE — Member Charter

European Network of Universities and Companies in Information and Communication Engineering.

1 Mission

The European universities and companies signing this charter are anxious to improve in a permanent manner the quality and relevance of their teaching and research in the field of information and communication technologies. They declare their desire to co-operate in the following ways:

- By jointly developing and promoting the best and compatible standard of European higher education and professionals in information and communication technologies
- By increasing scientific and technical knowledge in the field of telecommunications and developing their applications in the economy

2 Membership

The network is made up of European universities within the European Union and outside it, whether from Western, Central or Eastern Europe. These universities are involved at their own appropriate organization level, taking into account the mission of the network. The parties signing the present charter will be the “founding partners.” Other universities, very limited in number, might be invited to join the network as “members.”

Transnational companies, working together with the universities on information and communication technologies, and representatives from the relevant commission of the European Union will be offered the opportunity to be associate members. No institution can apply for membership.

3 Education

The partners will seek the development of high-level compatibility of the existing or commonly developed courses and programs, in order to facilitate their recognition by employers independently of their geographical location in Europe. To achieve this goal, the partners will, inside the network, work on mutual recognition of these courses and programs.

To develop interculturality, these courses and programs will be accessible in such a way as to encourage, as far as possible, long-duration mobility for students

and faculty members from one country to another (i.e., several months). To set compatible standards, shorter-duration operations will be conducted such as:

- Summer schools for young faculty members and PhD students
- Intensive seminars, in limited numbers, for students
- Short-duration mobility for faculty members for teaching assignments
- Use of new technologies in education

Finally, the partners will take advantage of the network of relations set up as described above to develop common modules for onsite training, for the world industry.

4 Research

The partners will also take advantage of this network to collaborate on research and development projects which could be carried out in common by several of them and which could lead to marketable applications in particular.

5 Organization and Structure

To achieve the above-mentioned aims, the institutions concerned will form a flexible structure whose role will be to think about and decide on joint actions. It will be called the steering group and will meet twice a year. The network would have no legal status. However, the network may authorize a member or set of members to act on its behalf.

Concrete proposition in education and research will be worked out in small working groups of at least two partners, chosen by the steering group as opportunities arise. Finally, a permanent secretariat, located at France Telecom University, will be established to co-ordinate all the information relevant to the network's activities.

6 Means and Finance

The institutions concerned will provide the specific financial and/or in-kind support necessary for the smooth running of the network, notably human resources (research lecturers, engineers, administrators, etc.).

The partners in the network will share information about funding opportunities and seek, as often as necessary, financial aid from public authorities for its actions:

- Within each country
- From bilateral programs at a country level, whenever such financial aids exist
- And finally at the European level by means of community schemes (ERASMUS, COMETT, TEMPUS, RACE, ESPRIT, ..., scientific and technological co-operation with Central and Eastern Europe, ..., human resources and mobility, etc.)

All things being equal regarding a specific action within the scope of the network, a member will prefer co-operation with other members of the network.

EUNICE Member Institutions

Finland	Tampere University of Technology
France	ENST Bretagne, Brest ENST Paris Loria University Poincaré, Nancy Telecom INT, Evry
Germany	Universität Karlsruhe Technische Universität München Universität Stuttgart
Hungary	Budapest University of Technology and Economics
Italy	Politecnico di Torino
Netherlands	University of Twente
Norway	Norwegian University of Science and Technology, Trondheim
Russia	St. Petersburg State University of Telecommunications
Spain	Universidad Carlos III de Madrid Universitat Politècnica de Catalunya Technical University of Madrid
UK	University of Sussex University College London

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