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Ralf Lehnert (Ed.)

Energy-Aware Communications

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Proceedings

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Preface

It is my great pleasure to welcome you to the proceedings of the 17th EUNICE workshop held in Dresden. EUNICE has a long tradition in bringing together young researchers in communication network modeling and design from all over Europe. The single-track structure with sufficient time for presentations has always provided a platform for stimulating discussions.

This year's focus was on the actual topic of "energy-aware communications." Communication networks today account for 2 % of the worldwide emissions of CO_2 with an exponentially rising trend. Currently, electrical energy is generated in a centralized fashion in a few power plants and distributed to the user. Efficient use of energy requires distributed generation and distributed control of alternative energy generators. Therefore, the power grid has to become a so-called smart grid, which in turn requires a communication network for controlling the power grid. Smart grid communications can be realized by all communication technologies, wired or wireless. Applications range from meter reading to home automation and entertainment and the control of distributed power plants.

EUNICE 2011 addressed research issues of energy-aware communication networks and communications for smart grids.

EUNICE 2011 consisted of three keynotes on smart planet communications, network coding, and resource allocation. Sixteen full papers in seven sessions were accepted. Furthermore there was a session with seven poster presentations of ongoing research.

My deep thanks go to our sponsors Comarch, Cracow, Poland, Detecon, Bonn, Germany, and Elcon Systemtechnik, Hartmannsdorf, Germany. Their generous support helped to reduce the registration fees significantly. Many people worked hard to prepare this workshop: I would like to recognize the work of Stanislav Mudriievskyi, Stefan Türk, Volker Richter, Roland Schingnitz, Rico Radeke and Jorge Robles.

September 2011   Ralf Lehnert

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EUNICE 2011 was organized by the Chair for Telecommunications, Technische Universität Dresden.

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