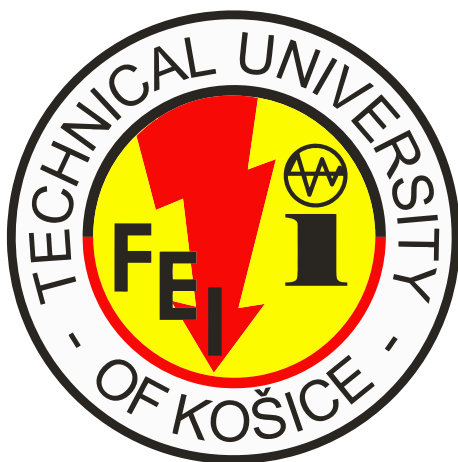


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**12<sup>th</sup> Scientific Conference of Young Researchers  
of Faculty of Electrical Engineering and Informatics  
Technical University of Košice**

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# Foreword

Dear Colleagues,

SCYR (Scientific Conference of Young Researchers) is a Scientific Event focused on exchange of information among young scientists from Faculty of Electrical Engineering and Informatics at Technical University of Košice - series of annual events that was founded in 2000. Since 2000 the conference has been hosted by FEI TUKE with rising technical level and unique multicultural atmosphere. The Eleventh Scientific Conference of Young Researchers (SCYR 2012), conference of Graduates and Young researchers, was held on 15<sup>th</sup> May 2012. The primary aims of the conference, to provide a forum for dissemination of information and scientific results relating to research and development activities at the Faculty of Electrical Engineering and Informatics has been achieved. 110 participants mostly by doctoral categories were active in the conference.

Faculty of Electrical Engineering and Informatics has a long tradition of students participating in skilled labor where they have to apply their theoretical knowledge. SCYR is opportunities for doctoral and graduating students use this event to train their scientific knowledge exchange. Nevertheless, the original goal to represent a forum for the exchange of information between young scientists from academic communities on topics related to their experimental and theoretical works in the very wide spread field of electronics, telecommunication, electrotechnics, computers and informatics, cybernetics and Artificial intelligence, electric power engineering, remained unchanged.

12<sup>th</sup> Scientific Conference of Young Researchers at Faculty of Electrical Engineering and Informatics Technical University of Košice (SCYR 2012) was organized in a beautiful village Herľany. The Conference was opened in the name of dean prof. Ing. Liberios Vokorokos, PhD. by the vicedean of faculty, doc. Ing. Roman Cimbala, PhD. In his introductory address he noted the importance of the Conference as a forum for exchange of information and a medium for broadening the scientific horizons of its participants and stressed the scientific and practical value of investigations being carried out by young researchers.

The program of conferences traditionally includes two parallel sessions (both consist of oral and poster part):

- Electrical & Electronics Engineering
- Informatics & Telecommunications

with approximately 110 technical papers dealing with research results obtained mainly in university environment. This day was filled with a lot of interesting scientific discussions among the junior researchers and graduate students, and the representatives of the Faculty of Electrical Engineering and Informatics. This Scientific Network included various research problems and education, communication between young scientists and students, between students and professors. Conference was also a platform for student exchange and a potential starting point for scientific cooperation. The results presented in papers demonstrated that the investigations being conducted by young scientists are making a valuable contribution to the fulfillment of the tasks set for science and technology at Faculty of Electrical Engineering and Informatics at Technical University of Košice.

We want to thank all participants for contributing to these proceedings with their high quality manuscripts. We hope that conference constitutes a platform for a continual dialogue among young scientists.

It is our pleasure and honor to express our gratitude to our sponsors and to all friends, colleagues and committee members who contributed with their ideas, discussions, and sedulous hard work to the success of this event. We also want to thank our session chairs for their co-operation and dedication throughout the whole conference.

Finally, we want to thank all the attendees of the conference for fruitful discussions and a pleasant stay in our event.

Liberios VOKOROKOS  
dean of FEI TUKE

May 15<sup>th</sup> 2012, Herľany