The Microcoll conference (Colloquium on Microwave Communications) was started by academician Géza Bognár in 1959 to offer a meeting forum for scientist from the West and East. Since 1962 it was organized regularly in every fourth year with two exceptions.

Microcoll was the second international microwave conference after IMS (International Microwave Symposium) all over the World. Microcoll conferences covered every aspects of microwave communications, e.g. microwave and electronic circuitry, electromagnetic wave propagation, system engineering, measurement techniques, computer aided design, link control and management, etc. The papers were regularly published in the Microcoll Conference Proceedings.

Many well-known scientists participated in the Microcoll conferences both from the East and West before and after the political changes in East Europe. The meetings had technical support from Institute of Electrical and Electronic Engineers (IEEE), European Microwave Association (EMA) and Hungarian Academy of Sciences.

The 13th Microcoll was held as a Workshop in July, 2015 at Budapest, Hungary. The speakers were offered to submit an extended version of their talk for publication in the Periodica Polytechnica of the Budapest University of Technology and Economics. The papers were reviewed by 3 members of the review board which had the following experts.

- Alessandra Costanzo, Professor, University of Bologna, Italy
- Georg Böck, Professor, Technical University of Berlin, Germany
- Lajos Hanzó, Professor, University of Southampton, UK
- John Mitchel, Professor, University College of London, UK
- Robert Minasian, Professor, The University of Sydney, Australia
- Antti Räisänen, Professor, Aalto University, Finland
- Roberto Sorrentino, Professor, University of Perugia, Italy
- André VanderVorst, Professor, University Catholique of Lovain, Belgium
- Vitaly Rymanov, Professor, University of Duisburg-Essen, Germany
- Robert Weigel, Professor, University of Erlangen, Germany

The present Special Issue of Periodica Polytechnica Electrical Engineering and Computer Science is devoted to the 13th Microcoll extended papers. The 7 papers of the Special Issue cover a wide area of microwave communications.

Three papers are on microwave antennas:
- A Technique for Analysing UWB Antennas using the TLM Method
- Design of Small Printed Multiband Loop Antennas for Short Range Wireless (SRW) Applications
- Indoor Positioning Using Linearly and Circularly Polarized Antennas

Two papers discuss wave propagation and availability problems:
- Rain effects on 5G millimeter wave ad-hoc mesh networks investigated with different rain models
- Availability Prediction of Telecommunication Servers Deployed on Cloud

Two papers present optical-microwave circuits:
- Planar E-Band (71-76 GHz) Platforms for Integrating Millimeter Wave Photodiodes with WR-12 Waveguides
- Stability problems of high frequency signals generated by direct mixing two lasers

We hope this collection will be useful for people working on microwave communications problems.

Prof. Tibor Berceli
Guest Editor for the Special Issue of the 13th Microcoll