Ing. Miroslav Karásek, DrSc.
† 27. April 2013

On Saturday of 27th of April, shortly before his 67th birthday, our leading research scientist, Miroslav Karásek, died.

Miroslav was born in Kolín, Czech Republic, where he also spent most of his life. He obtained his MSc. degree with honours at the Faculty of Electrical and Electronics Engineering, Czech Technical University in Prague in the major of Microwave technology. Subsequently, he joined the Institute of Radio Engineering and Electronics, Czechoslovak Academy of Sciences, which was then transformed into today's Institute of Photonics and Electronics, Czech Academy of Sciences.

He defended his PhD thesis in June 1974. The thesis entitled 'P-n-p baritt' dealt with microwave components based on active semiconductors. Miroslav followed this research direction also during his research stay at the University of Birmingham in the UK. Upon his return from Birmingham, he focused on modelling and characterization of properties of microwave semiconductor diodes, measurement of noise properties of microwave oscillators and their frequency stabilization using dielectric resonators. From 1981 he directed his research – in line with the new direction of our institute – into data transfer via optical fibres. In 1987, he was awarded prestigious Humbolt Fellowship and spent two years at the High-Frequency Department of the Technical University in Braunschweig with the world-known fibre optic scientist Prof. H.-G. Unger. During the Fellowship, Miroslav conducted research into methods for measurement of chromatic dispersion of single-mode optical fibres and modelling of fluoride-based optical fibres doped with Praseodymium. Upon his return from Braunchweig in 1987, Miroslav defended his DSc work that dealt with 'Dispersion of optical signals in optical fibre waveguides'. In the early nineties, Miroslav left academia to work in industry, but he returned back and studied fibre amplifiers that use rare-earth elements and Raman amplifiers. Not surprisingly to all of us, he soon became internationally-recognised scientist in this field. Thanks to his extremely efficient work attitude, friendly approach and knowledge of several languages, he successfully participated in many national and international research projects. In 1999-2000 he worked as a visiting Professor at Electrical Engineering Department of Laval University in Quebec City in Canada. After 2000, he started a long-lasting and successful collaboration with CESNET a.l.e., resulting in inventions of many original configurations of

optical amplifiers as well as fibre optic network architectures. These inventions surpassed commercially-available systems in terms of Capex (Capital expenditure) as well as Opex (Operational Expenditure) costs. In 2007, this important and successful research received an award by the Ministry of Education, Youth and Sports of the Czech Republic. Miroslav was also a key member of the research team that was awarded a Honourable Mention for exceptionally excellent delivery of a research project sponsored by the Czech Science Foundation by the chairman of the Czech Science Foundation (main research funding body in the Czech Republic) in 2007. In the field of optical amplifiers, Miroslav was extremely active till his recent retirement that was due to a serious illness.

Miroslav published two books and more than 100 original scientific papers in international journals and at prestigious international conferences, which generated more than 750 citations. He was also very active in education of students from the Faculty of Physical and Nuclear Engineering, Czech Technical University, worked as a committee member in the Czech Science Foundation and other scientific and technical bodies.

All of us that had the honour of working with Miroslav or meeting him on various occasions will remember him not only as an extremely efficient, productive and reputable researcher, but – above all – always a friendly and helpful colleague – simply an exceptionally nice person.

On behalf of friends and colleagues

Prof. Jiří Čtyroký and Radan Slavík