
Zdenek Becvar

Associate Professor

Czech Technical University in Prague
Faculty of Electrical Engineering
Dept. of Telecommunication Engineering
5Gmobile Research Lab
166 27 Prague, Czech Republic
E-mail: zdenek.becvar@fel.cvut.cz
Phone: + 420 2 2435 5964
Web: www.zdenekbecvar.org
www.5Gmobile.eu

Work experiences

- | | |
|----------------|--|
| Since 05/2014 | Czech Technical University in Prague, FEE, Dept. of Telecommunication Engineering
Associate professor |
| 2011 - 04/2014 | Czech Technical University in Prague, FEE, Dept. of Telecommunication Engineering
Assistant professor |
| 2008 - 2010 | Czech Technical University in Prague, FEE, Dept. of Telecommunication Engineering
Researcher |
| 2009 | Vodafone RDC at Czech Technical University in Prague, Czech Republic
PhD student focused on development of testbed for wireless networks |
| 2006 - 2007 | Sitronics R&D centre, Prague, Czech Republic
PhD student researcher focused on VoIP speech quality improvement |
-

Education

- | | |
|-------------|---|
| 2005 - 2010 | Czech Technical University in Prague, Faculty of Electrical Engineering
Ph.D. in Telecommunications
Thesis: Reduction of handover interruption in mobile network |
| 1999 - 2005 | Czech Technical University in Prague, Faculty of Electrical Engineering
M.Sc. in Telecommunications
Thesis: Bluetooth modul for radiomodem |
-

Internships

- | | |
|------------|---|
| 05-06/2016 | EURECOM, Communication Systems Department , Sophia Antipolis, France |
| 08/2014 | University College Dublin, Performance Engineering Lab , Dublin, Ireland |
| 01-07/2013 | CEA-Leti, Wireless Telecommunications Lab , Grenoble, France |
| 04/2007 | Budapest Polytechnic, FEE, Dpt. of Telecommunication , Budapest, Hungary |
-

Research interests

Radio resource management in mobile networks, mobility support in wireless networks, device-to-device communication, power control, architecture of radio access network, small cells, 5G.

Academic activities

Lectures and labs in Mobile Communication Networks.
Supervisor of 3 PhD and more than 20 MSc students (Dean's award for one master and one PhD student).
Coordinator of double-degree master study program with NTUST, Taiwan.
Member of Committee for PhD studies in Telecommunications @ FEE, CTU.
Member of board of Electronic and Communication program @ FEE, CTU

Miscellaneous

Member of IEEE Communications, Vehicular Technology, Computer, and Intelligent Transportation Societies.
Representative of Czech Technical University in Prague in 3GPP and ETSI standardization bodies.
Member of more than 15 conf. committees and editor of Transactions on Internet and Information Systems.
Reviewer for many WoS indexed journals including many IEEE Trans. (TWC, TMC, TVT, TNSM), IEEE Letters (CL, WCL), IEEE magazines (Wireless, Communications, Networks, Vehicular technology), and many others.

Publication activities

More than sixty papers published in journals and international conferences.

Four published book chapters.

One national patent (on D2D).

H-index: WoS = 5, Scopus = 6, Google scholar = 12

Number of citations: WoS = 77, Scopus = 130, Google scholar = 449

Contributions to 3GPP (D2D, architecture of mobile networks) and IEEE 802.16m (handover).

Selected papers:

- [1] P. Mach, Z. Becvar, "Energy-aware Dynamic Selection of Overlay and Underlay Spectrum Sharing for Cognitive Small Cells," accepted to *IEEE Transactions on Vehicular Technology*, 2016.
- [2] J. Plachy, Z. Becvar, P. Mach, "Path Selection Enabling User Mobility and Efficient Distribution of Data for Computation at the Edge of Mobile Network", accepted to *Computer Networks*, 2016.
- [3] M. Vondra, Z. Becvar, "Distance-based Neighborhood Scanning for Handover Purposes in Network with Small Cells," *IEEE Transactions on Vehicular Technology*, Vol. 65, No. 2, February 2016.
- [4] P. Mach, Z. Becvar, T. Vanek, "In-Band Device-to-Device Communication in OFDMA Cellular Networks: A Survey and Challenges," *IEEE Communications Surveys & Tutorials*, Vol. 17, No. 4, November 2015.
- [5] Z. Becvar, P. Mach, M. Vondra, "Self-optimizing Neighbor Cell List with Dynamic Threshold for Handover Purposes in Networks with Small Cells," *Wireless Communications and Mobile Computing*, Vol. 15, No. 13, September 2015.

Research projects

- 07/2016 – 06/2018 **Game theoretic aspects of wireless spectrum access**
Bilateral project no. 8G15008 with prof. Amir Leshem, Bar-Ilan University funded by Ministry of Education, Youth and Sport of Czech Republic
- 09/2012 – 04/2015 **Project TROPIC** (www.ict-tropic.eu) – project is tagged as **5G project** by EC
FP7 project (No. ICT-318784) funded by European Commission
Workpackage leader (Scenarios, Architecture, and Market Analysis), member of coordination and technical project committees.
- 01/2012 – 12/2014 **Prediction Algorithms for Efficient Mobility Management in Wireless Networks**
Research project no. P102/12/P613 funded by Czech Science Foundation (GACR)
- 01/2010 – 12/2011 **Project FREEDOM** (www.ict-freedom.eu)
FP7 project (No. ICT-248891) funded by European Commission
Workpackage leader (Control procedures for RRM), member of coordination and technical project committees.
- 12/2008 – 12/2009 **Project WiMATE** (<http://www.rdc.cz/en/projects/WiMate>)
Vodafone RDC project.
- 01/2008 – 12/2009 **Project ROCKET** (www.ict-rocket.eu)
FP7 project (No. ICT-215282) funded by European Commission.
- 09/2007 – 12/2007 **Feasibility study of national radio access network based on WiMAX**
National project funded by Ministry of the Interior of the Czech Republic.
- 01/2006 – 12/2007 **Project FIREWORKS** (<http://fireworks.intranet.gr>)
FP6 project (No. IST-027675) funded by European Commission.
- 01/2006 – 12/2007 **Improvement of VoIP speech quality**
Project funded by Sitronics R&D centre, Prague.

Language skills

Czech	Native
English	Fluent
French	Basic
German	Basic