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# Zdenek Becvar

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## Associate Professor

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## Work experiences

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

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## Education

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

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## Internship

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| 08/2014    | <b>University College Dublin, Performance Engineering Lab</b> , Dublin, Ireland |
| 01-06/2013 | <b>CEA-Leti, Wireless Telecommunications Lab</b> , Grenoble, France             |
| 04/2007    | <b>Budapest Polytechnic, FEE, Dpt. of Telecommunication</b> , Budapest, Hungary |

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## Research interests

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Radio resource management in mobile networks, mobility support in wireless networks, device-to-device communication, power control, femtocells, small cells, 5G.

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## Academic activities

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Lectures and labs in Mobile Communication Networks, labs in and Telecommunication systems.  
Supervisor of two PhD and more than fifteen MSc students.

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## Miscellaneous

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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 conference committees.  
Reviewer for many WoS indexed journals such as IEEE Trans. on Wireless Communications, IEEE Trans. on Mobile Computing, IEEE Trans. on Vehicular Technology, IEEE Communications Letters, IEEE Wireless Communications, EURASIP Journal on Wireless Communications and Networking, Wireless Communications and Mobile Computing, Transactions on Emerging Telecommunications Technologies, etc.

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## Publication activities

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More than fifty papers published in journals and at international conferences.

Three published book chapters.

Contributions to 3GPP and IEEE 802.16m.

### Selected papers:

- [1] M. Vondra, Z. Becvar, "Distance-based Neighborhood Scanning for Handover Purposes in Network with Small Cells," *IEEE Transactions on Vehicular Technology*, 2015.
- [2] 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*, 2013.
- [3] Z. Becvar, P. Roux, P. Mach, "Fast cell selection with efficient active set management in OFDMA networks with femtocells," *EURASIP Journal on Wireless Communications and Networking* 2012, 2012:292.
- [4] Z. Becvar, P. Mach, B. Simak, "Improvement of Handover Prediction in Mobile WiMAX by Using Two Thresholds," *Computer Networks*, Elsevier, Vol. 55 No. 16, November 2011.
- [5] P. Mach, Z. Becvar, "QoS-Guaranteed Power Control Mechanism Based on the Frame Utilization for Femtocells," *EURASIP Journal on Wireless Communications and Networking*, Vol. 2011, 16 pages, 2011.

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## Research projects

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- 09/2012 – 04/2015 **Project TROPIC** ([www.ict-tropic.eu](http://www.ict-tropic.eu)) – project is tagged as 5G project by EC FP7 project (No. ICT-318784) founded 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](http://www.ict-freedom.eu)) FP7 project (No. ICT-248891) founded 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](http://www.ict-rocket.eu)) FP7 project (No. ICT-215282) founded by European Commission.
- 09/2007 – 12/2007 **Feasibility study of national radio access network based on WiMAX** National project founded by Ministry of the Interior of the Czech Republic.
- 01/2006 – 12/2007 **Project FIREWORKS** (<http://fireworks.intranet.gr>) FP6 project (No. IST-027675) founded by European Commission.
- 01/2006 – 12/2007 **Improvement of VoIP speech quality** Project founded by Sitronics R&D centre, Prague.

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## Language skills

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Czech	Native
English	Fluent
French	Basic
German	Basic