

Jan Kubr

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Personal Statement

I work as an assistant professor at the Czech Technical University in Prague (České vysoké učení technické v Praze - ČVUT). I teach computer networks (LAN, MAN, WAN, WLAN, modern internet technologies, routing and switching, security, design and architecture, communication protocols and their design) and I have a vast experience in these subjects. My research areas include communication protocols, routing and switching, and wireless sensor networks, beamforming, network technologies, virtual operating systems, distribution systems. I'm director of CTU Open – national level of ACM International Collegiate Programming Contest (ICPC).

Education

Present – study PhD (doctor of philosophy) at the Czech Technical University in Prague (ČVUT), Faculty of Electrical Engineering; major in wireless computer networks; dissertation: “Routing in Ad-Hoc and Sensor Networks”;

1994 - Engineer (master level equivalent) from the Czech Technical University in Prague (ČVUT), program Electronics Computers;

Experience

1998 – present: university lecturer at the Czech Technical University in Prague (ČVUT), Faculty of Electrical Engineering, Computer Science Department;

1996 – present: lecturer Hewlett-Packard courses: Data Protector backup system, Cluster solution MC/SG, SAN, Network Management

2016 – present: RedHat academy administrator and instructor

2006 – present: director of CTU Open – national level of ACM ICPC

2007, 2011: director of Central European Regional Contest ACM ICPC

Programming skills

Java, C/C++, OMNeT++, occam

Administration skills

Linux (Debian, RedHat), Cisco IOS (router, switch)

Teaching Experience

1994 – present at the Czech Technical University in Prague (ČVUT):

Lecturing - Networking:

- Wireless Computer Networks
- Computer Networks
- Distributed Systems
- Discrete Simulations
- Advanced Internet Technologies

Project Management:

- Research Team Projects
- Student's Individual Projects – master and bachelor thesis
- Student's Semestral Projects

Programming:

- Programming Essentials

Research

Research in archiving of digital signed documents;
Research in wireless computer networks and sensor arrays;
Research in SAN (Storage Array Network) and High Availability;

Grants

2011 – 2013, Co-researcher TAČR TA01010784 – FormCloud (Usage Cloud Technology for Processing of Intelligent Electronics Forms)

2014 – 2015, SGS14/140/OHK3/2T/13 - Routing in Sensor Networks through Distributed Phase-Shift Beamforming

2014 – 2015, CESNET 513/2014 – Portal for full integration of backup, archiving, and sharing of data on Department of Computer Science.

2013 – 2014, CESNET 493/2013 - Backup and archiving consolidation

2012 – 2013, SGS12/148/OHK3/2T/13 - ELISA - Extensible Layer for Internet Services and Applications

2011 – 2013, SGS11/158/OHK3/3T/13 - Ad-hoc and Sensor Networks Intercluster Communication through Distributed Phase-shift Beamforming

Patents

A. Moucha, V. Černý, J. Kubr. Distributed System for Beamforming. Granted, Reg. No. 2011-25254 / 2011-785, 2011.

Janeček, J. - Kubr, J.: Circuit arrangement for integrated and distributed control and management of smart buildings and homes. Utility Model, 27182. 2014-07-14.

Publications

Moucha, A. - Černý, V. - Kubr, J. - Janeček, J.: Distributed phase-shift beamforming power balancing in ad-hoc and sensor networks. *Telecommunication Systems*. 2014, vol. 57, no. 4, p. 367-377. ISSN 1018-4864.

Černý, V. - Moucha, A. - Kubr, J.: Interference Cancellation by the Usage of Distributed Phase Shift Beamforming. In *2014 Eighth International Conference on Next Generation Mobile Applications, Services and Technologies*. Los Alamitos: Conference publishing Services, 2014, p. 248-253. ISBN 978-1-4799-5072-0.

Kubr, J. - Černý, V. - Moucha, A.: Advanced Methods for Phase Search in Beamformed Ad-Hoc Wireless Networks. In *Proceedings of the 2013 International Conference on Telecommunication Systems, Modeling and Analysis*. Dallas, TX: American Telecommunications Systems Management Association Inc., 2013, p. 1-7. ISBN 978-0-9820958-8-1.

Kubr, J. - Votava, O.: Mobile Data Network Analysis and Emulation tool. In *Proceedings of the 2012 International Conference on Telecommunication Systems, Modeling and Analysis*. Dallas, TX: American Telecommunications Systems Management Association Inc., 2012, p. 128-135. ISBN 978-0-9820958-6-7.

Mátl, L. - Bohdal, V. - Kubr, J. - Černý, T. - Klouček, V.: ELISA: Extensible Layer for Internet Services and Applications. In *POSTER 2013 - 17th International Student Conference on Electrical Engineering*. Prague: Czech Technical University, 2013, p. 1-5. ISBN 978-80-01-05242-6.

Mátl, L. - Klouček, V. - Bohdal, V. - Kubr, J. - Černý, T.: ELISA: Extensible Layer for Internet Services and Applications. In *Building Sustainable Information Systems*. Milano: Springer, 2013, p. 309-321. ISBN 978-1-4614-7540-8.

Moucha, A. - Černý, V. - Kubr, J.: Distributed Phase-Shift Beamformed Power Balancing in Ad-Hoc and Sensor Networks. In *Proceedings of the 2011 International Conference on Telecommunication Systems Management*. Dallas, TX: American Telecommunications Systems Management Association Inc., 2011. ISBN 978-0-9820958-4-3.

Moucha, A. - Černý, V. - Kubr, J.: Topology Control with High-Gain Sector Turning Antennas in Wireless Networks. In *Proceedings of the 2012 International Conference on Telecommunication Systems, Modeling and Analysis*. Dallas, TX: American Telecommunications Systems Management Association Inc., 2012, p. 160-174. ISBN 978-0-9820958-6-7.

Votava, O. - Macejko, P. - Kubr, J. - Janeček, J.: Dynamic Local Scheduling of Multiple DAGs in a Distributed Heterogeneous Systems. In *Proceedings of the 2011 International Conference on Telecommunication Systems Management*. Dallas, TX: American Telecommunications Systems Management Association Inc., 2011, p. 171-178. ISBN 978-0-9820958-4-3.

Foreign languages

English – Intermediate level

Russian – Upper Intermediate level