Europass Curriculum Vitae

Personal information
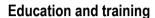
First name / Surname	**Miroslav Vozňák (* 1971)**
Address	Faculty of Electrical Engineering and Computer Science, VSB–Technical University of Ostrava
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Education and training

Dates	1995
Title of qualification awarded	MSc. (Ing.)
Principal subjects covered	Electronics and Telecommunications, **Thesis**: Source of emission for optical communications
Name of organisation providing education	Faculty of Electrical Engineering and Computer Science
	VSB-Technical University of Ostrava, Czech Republic

Dates	2002
Title of qualification awarded	Ph.D.
Principal subjects covered	Telecommunications, **Dissertation**: Voice traffic optimization with regard to speech quality in network with VoIP technology
Name of organisation providing education	Faculty of Electrical Engineering and Computer Science
	VSB-Technical University of Ostrava, Czech Republic

Dates	2009
Title of qualification awarded	assoc. prof. (Doc.)
Principal subjects covered	Electronics and Communications Technologies, **Habilitation**: Impact of security on speech quality
Name of organisation providing education	Faculty of Electrical Engineering and Computer Science
	VSB-Technical University of Ostrava, Czech Republic

Dates	2017
Title of qualification awarded	prof., **appointment as a professor** in Electronics and Communications Technologies

Personal skills, competences

Mother tongue(s)	**Czech**

Self-assessment	Understanding				Speaking				Writing	
European level (*)	Listening		Reading		Spoken interaction		Spoken production			
English	B2	Independent	C1	Proficient User	C1	Proficient User	B2	Independent	B2	Independent
Russian	A2	Basic User	A2	Basic User	A2	Basic User	A2	Basic User	A2	Basic User

Positions and Organisational skills	Since 1995 at positions in VSB-Technical University of Ostrava:
	- assistant professor, associate professor and full professor (FEECS VSB-TUO) and researcher (IT4I VSB-TUO)
	2009 - 2013 Vice-Chair of Department of Telecommunications (FEECS VSB-TUO),
	Since 2013 Department Chair, Department of Telecommunications (FEECS VSB-TUO),
	2017-2023 Head of Big Data Analysis Lab (IT4I VSB-TUO)
	2015-2019 Head of RG WiCOM at TDTU in Ho Chi Minh City,
	Since 2020 Head of RG in the field of sensor networks in Klaipeda University
	Since 2017 Chair of the executive board in association "Internet of Things Cluster"
Professional competencies	Research in field of Information and Communications Technologies focusing on Quality of multimedia services, Wireless Networks, Network security, Internet of Things and knowledge data mining in mobile networks.

Membership and professional community	Member of **Research Councils** - Czech Technical University in Prague, Faculty of Electrical Engineering and Computer Science of VSB-TUO, IT4Innovations of VSB-TUO, Faculty of Transportation Sciences of CTU in Prague, Faculty of Information Technology of CTU in Prague,
	Member of **doctoral branch committees** "Telecommunication Technology" and "Smart City" at Czech Technical University in Prague, "Telecommunications" at University of Zilina and "Computer Science, Communication Technology and Applied Mathematics" at VSB-TUO, chair of doctoral study programme "Communications Technologies" at VSB-TUO, IEEE Senior member
	Editorial board member of **journals:** Electronics (CH), Sensor (CH), Communications (TR), Advances in Electrical and Electronic Engineering (CZ), Elektrorevue (CZ), Journal of Advanced Engineering and Computation (VN), Elektronika Ir Elektrotechnika (LT).
	Guest-editor of special issues in Wireless Personal Communications, Sensors, Journal of Sensors and Actuator Networks, Advances in Electrical and Electronic Engineering. **General chair** of several conferences such as IEEE/ACM DS-RT 2020 or IFIP WMNC 2018 and a member of many **technical or steering committees** of conferences such as in ELECTRONICS, TSP, INCOS, AETA, RTUWO, ELEKTRO, etc..

Projects in last years	
	- Application of Quantum Cybersecurity in 5G Networks **(QUANTUM5), NATO Science for Peace and Security** (2021-2024), under grant agreement ID G5894, role: PI.
	- Open Quantum Key Distribution (**OPENQKD**), **HORIZON 2020** (2019-2023), under grant agreement No. 857156, role: local PI.
	- Technology Transfer via Multinational Application Experiments (**TETRAMAX**), **HORIZON 2020** (2017-2021), under grant agreement No. 761349, role: local PI.
	- Intelligent information system supporting observation, searching and detection for security of citizens in urban environment (**INDECT**). **FP7 EU** (2009-2014) under Grant Agreement No. 218086, role: researcher.
	- Multi-Gigabit European Research and Education Network and Associated Services (GN3), **FP7 EU** (2009-2013) under Grant Agreement No. 238875, role: researcher.
	- Digital Broadcasting and Broadband Technologies, **Erasmus+** Capacity Building in Higher Education, project No. 561688-EPP-1-2015-1-XK-EPPKA2-CBHE-JP (2015-2018), role: local PI.
	- Multimedia and Digital TV Curricula, **Erasmus+** Capacity Building in Higher Ed/ucation, project No. 586318-EPP-1-2017-1-AL-EPPKA2-CBHE-JP (2017-2020), role: local PI.
	- IT4Innovations, National Supercomputing Centre, Czech **National Centre of Excellence**, Ostrava (2011-2016), senior researcher in Research Programme No. 5, role: senior researcher.
	- Secure Gateway for the Internet of Things (SIoT), **Ministry of the Interior (CZ)**, under grant VI2VS/491 (2017-2020), role: local PI.
	- Development of advanced industrial sensors and an extension of portfolio in Internet of Things, **Ministry of Industry and Trade**, CZ.01.1.02/0.0/0.0/16_084/0009815 (2017-2020), role: local PI.
	- Specific method of check-in and number of passengers, **Technology Agency** of the Czech Republic, under grant TB0500MD011 (2016), role: PI.
	- Limits of data from mobile sites in statistical surveys of Czech statistical office, **Technology Agency** of the Czech Republic, grant id TD03000452 (2016-2017), role: coordinator in VSB-TUO.
	- Security of mobile devices and communication, **Technology Agency** of the Czech Republic, under grant TF01000091 (2015-2017), role: deputy of PI.

Degrees and awards	
	2020, 2021, 2022, 2023 - In list of **TOP 2% World Scientists** by Stanford University in ICT (career impact db)
	2023 - dean's award for excellent result in 2023
	2022 - rector's award for results in science in 2021
	2019 – Letter of appreciation for results in research received from vice-rector for research & science of Technical University of Ostrava
	2017 - **The best paper award**, 2017 Multimedia Communications, Services and Security 9th International Conference, MCSS 2017, Kraków, http://mcss2017.kt.agh.edu.pl/
	2016 – **The best paper award**, IEEE Symposium on Performance Evaluation of Computer and Telecommunication Systems, Montréal, http://atc.udg.edu/SPECTS2016/
	2016 – **Overall Best Paper Runner Up Award**, 2016 Summer Simulation Multiconference, Montréal, http://scs.org/summersim/
	2016 - Elevation to the **grade of IEEE Senior member**
	2015 – **The best paper award**, IEEE Conference on Computer Networks, http://cn.polsl.pl/2015/
	2009-2017 supervising theses of **ten students who obtained dean's or rector's appreciation**
	2008 - **achievement rector's award** for contribution to cooperation with industry, from rector VSB-TUO

Publications	- **>650 results** indexed in Czech national database of Research, Development and Innovations (IS VaVaI), **single author 75 of them,** 129 outputs of industrial and applied research
Scopus	- **>460 results** indexed in **SCOPUS,** >240 articles in journals, h-index=28
WoS	- **>360 results** indexed in **WoS,** >200 articles in journals with impact factor, h-index=22
Google Scholar	- **h-index = 34** in Google Scholar, > 5,000 citations

Ten selected articles in SCIE journals in last FIVE years

[1] Mehic M., Michalek L., Dervisevic E., Burdiak P., Plakalovic M., Rozhon J., Mahovac N., Richter F., Kaljic E., Lauterbach F., Njemcevic P., Maric A., Hamza M., Fazio P., and Voznak M. *Quantum Cryptography in 5G Networks: A Comprehensive Overview* (2023) **IEEE Communications Surveys and Tutorials**, Online first, DOI: 10.1109/COMST.2023.3309051 **IF=35.6** (2022)

[2] Le A., Tran D., Le C., Tin P.T., Nguyen T.N., Ding Z., Poor H.V., and Voznak M. *Power Beacon and NOMA-Assisted Cooperative IoT Networks With Co-Channel Interference: Performance Analysis and Deep Learning Evaluation* (2023) **IEEE Transactions on Mobile Computing**, pp. 1-14 DOI: 10.1109/TMC.2023.3333764 **IF=7.9** (2022)

[3] Nguyen T.N., Tu L.-T., Fazio P., Van Chien T., Le C.V., Binh H.T.T., and Voznak M. *On the Dilemma of Reliability or Security in Unmanned Aerial Vehicle Communications Assisted by Energy Harvesting Relaying* (2024) **IEEE Journal on Selected Areas in Communications**, 42 (1), pp. 52 - 67 DOI: 10.1109/JSAC.2023.3322756 **IF=16.4** (2022)

[4] Fazio P., Mehic M., and Voznak M. *Load Monitoring and Appliance Recognition Using an Inexpensive, Low Frequency, Data-to-Image, Neural Network and Network Mobility Approach for Domestic IoT Systems* (2023) **IEEE Internet of Things Journal**, 10.1109/JIOT.2023.3340423 **IF=10.6** (2022)

[5] P. Fazio, M. Mehic and **M. Voznak.** *An Innovative Dynamic Mobility Sampling Scheme Based on Multi-Resolution Wavelet Analysis in IoT Networks* (2022) **IEEE Internet of Things Journal**, 9(13), pp. 11336-11350. DOI: 10.1109/JIOT.2021.3126550. **IF 10.238** (2021)

[6] TN. Nguyen, DH. Tran, TV Chien, VD. Phan, **M. Voznak**., PT Tin, S. Chatzinotas DWK. Ng, and HV. Poor. *Security-Reliability Tradeoff Analysis for SWIPT- and AF-Based IoT Networks With Friendly Jammers* (2022) **IEEE Internet of Things Journal**, 9 (21), pp. 21662 – 21675. DOI: 10.1109/JIOT.2022.3182755 . **IF 10.238** (2021)

[7] P. Partila, J. Tovarek, H.G. Ilk, J. Rozhon and **M. Voznak**, *Deep Learning Serves Voice Cloning: How Vulnerable Are Automatic Speaker Verification Systems to Spoofing Trials?* (2020) **IEEE Communications Magazine**, 58 (2), pp. 100-105. DOI: 10.1109/MCOM.001.1900396. **IF 9.619** (2020)

[8] M. Mehic M., M. Niemiec, S. Rass, J. Ma, M. Peev, M. Aguado, V. Martin, S. Schauer, A. Poppe, C. Pacher and **M. Voznak**. *Quantum Key Distribution: A Networking Perspective* (2020) **ACM Computing Surveys**, vol. 53, No. 5, art. 96. DOI:10.1145/3402192. **IF 10.282** (2020)

[9] P. Fazio, M. Mehic and **M. Voznak**. *A deep stochastical and predictive analysis of users mobility based on Auto-Regressive processes and pairing functions* (2020) **Journal of Network and Computer Applications**, Vol. 168, Oct 2020. DOI:10.1016/j.jnca.2020.102778. **IF 6.281** (2020)

[10] M. Mehic, P. Fazio, S. Rass, O. Maurhart, M. Peev, A. Poppe, J. Rozhon, M. Niemiec and **M. Voznak**. *A Novel Approach to Quality of Service Provisioning in Trusted Relay Quantum Key Distribution* (2020) **IEEE/ACM Transactions on Networking**, DOI:10.1109/TNET.2019.2956079. **IF 3.56** (2020)

References

Name, position, company and contact

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Ostrava, 2024