

CURRICULUM VITAE

Dr. Tech., IEEE Senior Member, Konstantin Mikhaylov

1. Full name and date

- Family name: Mikhaylov
- Given name: Konstantin
- Gender: male
- Date of CV: 25 September 2019

2. Date and place of birth, nationality, current residence

- Date and place of birth: 23 July 1985, Leningrad, USSR
- Citizenship: Finland & Russian Federation
- Current residence: Oulu, Finland
- Primary contacts:
University of Oulu, Centre for Wireless Communications (CWC-NS)
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3. Education and degrees awarded

- **Doctor of Science in Technology** (grade: excellent), Doctoral Training Committee for Information Technology and Electrical Engineering, University of Oulu, Oulu, Finland.
Major subject: communication engineering,
Minor subject: Internet of things – wireless technologies and design methodologies
Graduation date: 03.05.2018.
Further details: university.of.oulu@oulu.fi
- **Master of Science in Engineering** (grade: excellent), Radio physics Department, Saint-Petersburg State Polytechnical University, Saint-Petersburg, Russian Federation.
Major subject: communication engineering,
Graduation date: 03.06.2008.
- **Bachelor of Science in Engineering** (grade: excellent), Radio physics Department, Saint-Petersburg State Polytechnical University, Saint-Petersburg, Russian Federation.
Major subject: communication engineering,
Graduation date: 21.06.2006.

4. Other education and training, qualifications and skills

- **ThingWorx IoT platform introductory course** (40 hrs), PTC University, 15-20.01.2017.

5. Linguistic skills

- English: fluent
- Finnish: intermediate
- German: intermediate
- Russian: native

6. Current positions

- 1.6.2018 – *Post-Doctoral Research Fellow* for Internet of Things (IoT) and wireless Machine-Type Communication (MTC) technologies at Centre for Wireless Communications Network Systems group (CWC-NS), Faculty of Information Technology and Electrical Engineering (ITEE), University of Oulu, Oulu, Finland.
- 8.9.2016 – *Chief Technical Officer (CTO) and Co-Founder* at Solmu Technologies OY, Oulu, Finland. The company delivers high-end IoT solutions for various markets and verticals (primary vertical - industry) and provides consultancy services.
- 7.5.2019 – *Visiting Post-Doctoral Research Fellow* for wireless Machine-Type Communication (MTC) technologies at the Faculty of Electrical Engineering and Communication (FEKT), Brno University of Technology, Brno, Czech Republic.

7. Previous work experience

Earlier employment:

- 1.1.2014-30.5.2018 – *Doctoral Student* (IoT and wireless MTC technologies), CWC-NS, ITEE, University of Oulu, Oulu, Finland.
- 25.08.2008-31.12.2013 – *Project Engineer/Researcher* (Wireless Sensor Networks (WSN) and IoT) at RFMedia Laboratory (Oulu Southern Institute of the University of Oulu/Centria R&D of Central Ostrobothnia University of Applied Sciences), Ylivieska, Finland.
- 1.11.2006-15.08.2008 – *Project Engineer* (radio and embedded systems) at Federal State Unitary Enterprise Research-and-Production Association “Impulse” (Russian Federal Space Agency), St. Petersburg, Russian Federation

Adjunct positions and long-term research visits:

- 26.03.2019-06.05.2019 – *Visiting Researcher* (MTC) at King’s College London, London, UK. Prof. Mischa Dohler’s group.
- 15.09.2015-06.12.2015 – *Visiting Researcher* (ultrawideband radio technologies) at Yokohama National University, Yokohama, Japan. Prof. Ryuji Kohno’s laboratory.
- 20.01.2013-23.03.2013 – *Visiting Researcher* (WSN) at Gwangju Institute of Science and Technology, Gwangju, Republic of Korea (i.e., South Korea). Prof. Kiseon Kim’s laboratory.

8. Research funding, leadership, and supervision

Konstantin is responsible for the full cycle of project implementation, including preliminary and feasibility studies, drafting and submitting an application, research work and reporting.

Major research funding:

Acted as the (co-) principal investigator (PI) or similar:

- 1.1.2018-31.12.2019 – Low Power Wide Area Network Evolution (LPWAN-Evolution) project, University of Oulu, *Principal Investigator* (Total budget: 200 000 EUR)
- 1.2.2017-30.9.2017 – Extending IoT signal coverage, Business Finland (HILLA programme), *Principal Investigator* (Total budget: 30 000 EUR)
- 18.03.2016 – Modular Platform for Wireless Sensor and Actuator Networks and Internet of Things, Sähköinsinööriiliiton Säätiö, *Principal Investigator* (Personal grant: 2 000 EUR)
- 1.1.2015-31.12.2015 – Wireless Solutions and Infrastructure for Indoor Localization of Mobile Objects and Robots (WIILMOR), University of Oulu, *Co-Principal Investigator* (Total budget: 22 500 EUR, PI not assigned)

- 24.11.2015 – Modular Platform for Wireless Sensor and Actuator Networks and Internet of Things, Nokia Foundation, *Principal Investigator* (Personal grant: 5 000 EUR)
- 02.12.2014 – Modular Platform for Wireless Sensor and Actuator Networks and Internet of Things, Nokia Foundation, *Principal Investigator* (Personal grant: 5 000 EUR)

Acted as the work package (WP) leader or similar:

- 1.1.2014-31.12.2016 – Wireless Networking Laboratory (WNL), University of Oulu, *WSN WP leader* (Total budget: 200 000 EUR, PI Prof. Jari Iinatti, University of Oulu)

Acted as the researcher/contributor or similar:

- 1.11.2018-31.12.2019 – SP400 project, Business Finland, *Research Scientist* (Total budget: 500 000 EUR, PI Prof. Ari Pouttu, University of Oulu)
- 1.1.2016-31.12.2017 – Peer-to-Peer (P2P) SmarTest, H2020 programme, *Research Scientist* (Total budget: 3 866 215 EUR, PI Prof. Ari Pouttu, University of Oulu)
- 1.1.2016-1.12.2016 – Hands-on IoT for embedded systems and computer systems teaching, University of Oulu, *Contributor* (Total budget: 29 045 EUR, Responsible leader: Mr. Teemu Leppänen, University of Oulu)
- 01.05.2011-31.12.2013– Industrial Pilot Solutions of Embedded Technologies (TEPI), TEKES, *Project Researcher* (PI Dr. Jouni Tervonen, University of Oulu)
- 01.05.2010-30.04.2011– Reaaliaikainen monitorointi sensoriverkkofuusiolla (Real Fusion), TEKES, *Project Researcher* (PI Dr. Jouni Tervonen, University of Oulu)
- 25.08.2008-01.05.2010– Comprehensive Testing (COMPTEST), TEKES, *Project Engineer/Researcher* (PI Dr. Jouni Tervonen, University of Oulu)

Total funding acquired:

- As individual applicant: 12 000 EUR
- As project PI or equivalent: 252 500 EUR
- As contributor: over 900 000 EUR

Supervision of students:

- As supervisor or advisor for students: 2 Ph.D. and 3 M.Sc. students
- As a technical supervisor during internships: 3 M.Sc. and 2 B.Sc. students
- Examiner/opponent: 2 M.Sc. students
- Follow-up group member: 1 Ph.D. student

Konstantin is also actively involved in industrial collaboration with Nokia, Ericsson, Vodafone, Inycom, Helvar, Actility, etc.

9. Merits in teaching and pedagogical competence

- Pedagogical training: “Pedagogy and psychology” (89 hours), Saint-Petersburg State Polytechnical University, Saint-Petersburg, Russian Federation
- Contributed to “Hands-on IoT” B. Sc. course (5/8 cr) planning and preparation
- Second supervisor or co-supervisor of theses: 4 M.Sc. and 2 B.Sc. students
- Follow-up group member for 1 Ph.D student

10. Awards, prizes, and honors

- 2018 & 2017: **most publishing researcher** of the CWC-NS unit of the University of Oulu (the unit composes over 60 staff members)
- 2017: **innovator** award from CWC, University of Oulu

- 2016: **best demo award** at IEICE International Workshop on Smart Wireless Communications (SmartCom'2016)
- 2014: **best paper award** at IEEE International Conference on Cognitive InfoCommunications (CogInfoCom'2014).

11. Other academic merits

- **Senior Member of IEEE** and IEEE Communications Society
- The guest editor of the special issue on “Green Communications and Networking for IoT” of MDPI Sensor Journal (2018)
- Reviewer (referee) in IEEE, Elsevier, Springer, Wiley and MDPI journals, e.g.: *IEEE Wireless Commun. Let.*, *IEEE Commun. Mag.*, *IEEE Commun. Let.*, *IEEE IoT J.*, *IEEE Sensors*, *J. Systems & Software*, *IEEE Access*, *IEEE Trans. Comput.*, *IEEE Trans. Netw. Service Manag.*, *EURASIP J. Wireless Communications*, *MDPI Sensors*, *J. Comput. Networks*, *MDPI Electronics*, *J. Sensor Actuator Networks*, *Asian J. Control*.
- Publicity Chair of Sustainable networking through Machine Learning and Internet of thINGS (SMILING) workshop (in conjunction with IEEE Infocom 2019 (Jufo 2) conference)
- Served as session chair, e.g., at: *IEEE Sensors*, *IEEE PIMRC*, *IEEE ICUMT*, *IEEE/IFIP NTMS*
- Served as TPC member, e.g., at: *IEEE Globecom*, *IEEE ICC*, *IEEE PIMRC*, *IEEE WCNC*, *ITST*, *WF-IoT*, *IEEE AINA*, *ICUMT*, *EuCNC*

12. The scientific and societal impact of research

- The total number of publications – **82**, of which:
 - A1: 19 peer-reviewed research papers in internationally recognized journals (2012-2019)
 - A3: 3 book chapters (2012, 2019)
 - A4: 50 peer-reviewed research papers in high-level international conferences (2010-2019)
- h-index: 16 (Google Scholar), 13 (Scopus), 9 (Web of Science)
- i10-index: 29 (Google Scholar), 21 (Scopus), 9 (Web of Science)
- Total number of citations: 1490 (Google Scholar), 823 (Scopus), 303 (Web of Science)
- Citations to the most cited paper: 312 (Google Scholar), 178 (Scopus), 106 (Web of Science)
- Five (5) invention disclosures (H2)
- Co-founder and chief technical officer (CTO) of a spin-off company (with permission from the University of Oulu)
- Multiple demos, prototypes, and industry-grade proof-of-concept demonstrators