

Personal Details



Name	Pavlo Krasov
<i>Date and Place of Birth</i>	April 17, 1981, Saratov, Russia
<i>E-mail</i>	krasov@chalmers.se
<i>Skype</i>	pskras
<i>Phone</i>	+46 31 772 11 85
<i>LinkedIn</i>	www.linkedin.com/in/pavlokrasov/

Affiliation

Researcher at Antenna Group, Dept. of Electrical Engineering, Chalmers University of Technology, S-41296 Gothenburg, Sweden

Education

2012 PhD in Physics of devices, components and systems at Kharkiv National University of Radio Electronics, Ukraine

1998 – 2003 V. N. Karazin Kharkiv National University, Kharkiv, Ukraine
 M. Sc. in Radiophysics, 2003
 B. Sc. in Applied Physics, 2002

Work experience

2019 – present Researcher at Chalmers University of Technology, Gothenburg, Sweden

2012 – 2019 Senior research scientist at IRE NASU, Kharkiv, Ukraine

2008 – 2012 Junior research fellow at IRE NASU, Kharkiv, Ukraine

2003 – 2008 Research assistant at IRE NASU, Kharkiv, Ukraine

Research Interests

- Microwave measurement systems
- Antennas and OTA characterization
- Sensors
- Calibration techniques
- Data acquisition and manipulating
- Microwave dielectrometry of biosamples in medicine
- Industrial electronics

Skills and Professional Experience

- 3D EM simulation with Ansoft HFSS: antennas, waveguide based elements, microstrip elements
- SPICE simulation for electronics: circuit proof-of-concept verification, "what if" analysis, sustainability tests
- Schematic entry, constraints management and library management
- Electronics design for R&D, prototyping, production
 - multiple-in-one variants design for fast testing
 - comparison-driven design of critical features
 - redesign based on hardware testing results
- Sub-optimal high density PCB multilayer design, hand routing, automation
- Mixed-signal systems including sensors, analog circuits, ADC, MCU, low and high speed interfaces, power network, industrial protection
- Power distribution network (PDN) analysis
- Design for testing and manufacturing (DFx) analysis and correction
- Run-up, testing and tuning

Professional Memberships & Activities

2010 – present Member of the Institute of Electrical and Electronics Engineers (IEEE)

2018 – present Member of Ukrainian Physics Society (UPS)

2013 – 2019 Member of Young Scientists Council of IRE NASU

2014 – 2018 Member of Young Scientists Council of Department of Physics and Astronomy NASU

Organizational Work

- 2016–2018 Organizing Committee member IEEE International Conference on Mathematical Methods in Electromagnetic Theory (MMET) www.mmet.org. Ukraine.
- 2015–2017 Programme committee co-chair of IEEE International Young Scientists Forum on Applied Physics and Engineering (YSF) ysc.org.ua, Ukraine. Special workshop section chair.
- 2012–2014 Programme committee co-chair of Kharkiv Young Scientists Conference on Radiophysics, Electronics, Photonics and Biophysics (YSC), Kharkiv, Ukraine

Honors and Awards

- 2017 Grant for participating in Life Science Entrepreneurship Summer School 2017. Berlin, Germany
- 2016 Grant for participation in the summer workshop “Perspectives for young scientists in life sciences: mastering global challenges of the modern society”, Ivano-Frankivsk, Ukraine
- 2010-2012 Scholarship of the National Academy of Sciences of Ukraine.

Major publications and presentations

1. P.S. Krasov and K.A. Arkhipova, “Instrument for Measuring the Complex Permittivity of Biological Objects”, Telecommunications and Radio Engineering, 2009, 68(8): 727-733
2. P.S. Krasov, E.A. Arkhypova, A.I. Fisun, “Measuring cuvette simulation of dielectrometer for permittivity investigation of high-loss substances”, Journal of Measurement Science and Instrumentation, 2011, No.3, vol.2, pp.205-208.
3. P.S. Krasov, “Sensitization of waveguide measuring cuvette for biological objects permittivity investigation”, Telecommunications and Radio Engineering, Vol.70(6), 2011, pp. 491-496.
4. P.S. Krasov, E.A. Arkhypova, A.I. Fisun, “Cuvette simulation in nonresonator dielectrometer for high-loss substance permittivity measurements”, Journal of Applied Electromagnetism, 2011.-vol.13, No3. - P.9-14.
5. K.Arkhypova, P.Krasov, A.Fisun, S.Sautbekov, V.Lychko, and V.Malakhov, “Microwave waveguidebased dielectrometry for the monitoring erythrocytes’ beta-receptors activity” in Microwave Conference (EuMC), 2014 44th European, 2014, pp. 488–491
6. K. Arkhypova, A. Nosatov, P. Krasov, A. Fisun, M. Nurushev and V. Malakhov, "Dual-purpose microwaves application: Blood sensing and self-blood treatment," Microwave Conference (EuMC), 2015 European, Paris, 2015, pp. 817-820.
7. P.S. Krasov, K A. Arkhypova, "Calibration of Microwave Waveguide Sensor for Biomedical Applications", Proc. IEEE MMET'16, pp. 287-290, 2016.
8. K. A. Arkhypova, P. S. Krasov, A. I. Fisun et al., "Microwave dielectrometry as a tool for the characterization of blood cell membrane activity for in vitro diagnostics", Int. J. Microwave Wireless Technol., vol. 9, no. 8, pp. 1569-1574, Oct. 2017.
9. K. Arkhypova, P. Krasov, A. Fisun, "Millimeter-Wave Blood Cell Analysis: Another Outlook for Cellular Diagnostics", Proc. IEEE MTT-S IMBioC'17, pp. 97-100, 2017.
10. K. Arkhypova, F. Folokh, V. Lychko, P. Krasov, A. Fisun and V. Malakhov, "Microwave Blood Sensing for Monitoring Treatment Efficiency in Hypertensive Patients with Chronic Neurological Disorders," 2018 48th European Microwave Conference (EuMC), Madrid, 2018, pp. 507-510.