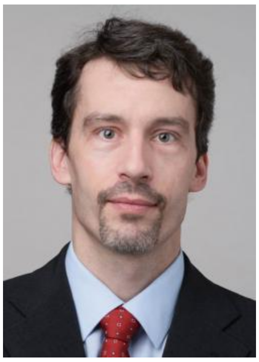
Curriculum Vitae



Personal data

Name:	Ing. Milan Polívka, Ph.D.
Date, birthplace:	December 11, 1971, Prague, Czech Republic
Gender:	male
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Education

Ph.D. 2003, Ing. Ing. 1996
Czech Technical University in Prague, Faculty of Electrical Engineering (CTU FEE), both in Radioelectronics

Experience

09/2019-12/2018	Fulbright-Masaryk Scholar, Pennsylvania State University, CEARL, 9 months
12/2018-06/2015, present-09/2019	CTU FEE, Vice-Dean for Doctoral Study and Science, member of Scientific Council of CTU FEE
present-03/2013	CTU FEE, assoc. professor
2013-2000	CTU FEE, assistent professor - teaching and research in the field of antennas, microwave technique and related computer aided modeling, RFID; - advisor of 28 diploma and 4 doctoral graduates
2014-2003	RFspin, s.r.o., co-founder, project and wifi antennas development
2014-2010	Municipal council of Květnice, member
2011	University of Ilmenau, Germany – R&D internship, 1 month
2003-1996	Wave systems, s.r.o. – microwave antenna developer
2000-1997	CTU FEE, scientific and development researcher

Scientific achievements

33 SCI-E WoS journal papers, 2 book chapters, 100+ conference papers, 8 CZ patents, h-index: 14 WoS, 18 Google Scholar

Scientific projects

2025-2023	Advanced Structures and Characterization Methods of Nonlinear Backscattering for Identification and Sensing, GA23-07518S (Principal Investigator, PI)
2019-2017	Wireless Sensing of Physical Quantities in Complex Environment, Czech Science Foundation GA17-02760S (Team Member, TM)
2017-2015	Remote Sensing of Small Scatterers by Electromagnetic Waves, CSF GA15-08803S (PI)
2017-2014	Electromagnetic Structures and Circuits for Wireless Power, LD 14122, part of COST WiPE IC1301 (TM)
2015-2012	Advanced Technologies and Modelling for Antennas and Sensors, LD 12055, part of COST VISTA IC1102 (TM)
2010-2008	Artificial Electromagnetic Structures for Miniaturisation of High Frequency and Microwave Radiation and Circuit Components, CSF GA102/08/1282 (PI)
2010-2008	Antenna Systems and Sensors with Special Characteristics, OC08018, part of COST ASSIST IC0603 (TM)
2006-2004	Multiband Planar Antennas with Compact Shapes, CSF 102/04/P131 (PI)

2003-2002	Design of Integrated Multiband Antenna System for NMT/GSM/DCS mobile phone detection system for Prison Administration of the Czech Republic, (TM)
2000-1997	Antenna anechoic chamber laboratory, MSMT VS97035 (TM)

CAD tool skills Electromagnetic and circuit simulators: Zeland I3D, CST Microwave Studio, AWR Microwave Office; MATLAB

Peer reviewer 150+ reviews for WoS SCI-E journals: IEEE Transactions on Antennas and Propagtion, IEEE Transactions on Microwave Theory and Technique, IEEE Antennas and Wireless Propagation Letters, IEEE Sensor Journal, IEEE Access, IET Electronics Letters, Radioengineering

Community and voluntary service

2023-2005	TPC member of international and national conferences (PIERS, COMITE, Radioelektronika, student POSTER)
2015-2012	Radioengineering journal, editoral board member
2011-2010	IEEE Czechoslovakia section, chairman
2011-2010	Radioengineering journal, associated editor
2010	IEEE R8 Voluntary Contribution Fund Coordinator – distribution of funds enabling students from poor countries to attend scientific conferences, email contact with students and IEEE R8 Treasurer
2009-2007	MTT/AP/ED/EMC joint chapter of IEEE CS section, chairman - organization of society and scientific activities (support of student activities, IEEE Distinguished lectures)

Membership in professional associations

IEEE, EuMA, Radioengineering Society

Languages Czech - native, English - advanced

Selected publications in WoS SCI-Expanded journals

[1] SVANDA, M., MACHAC, J., POLIVKA, M., Constraints of Using Conductive Screen-Printing for Chipless RFID TAGs with Enhanced RCS Response, Applied Sciences. 2023, 13(1), 148.

[2] POLIVKA, M., HUBATA-VACEK, v., SVANDA, M., Harmonic Balance/Full-Wave Analysis of Wearable Harmonic Transponder for IoT Applications, *IEEE Transactions on Antennas and Propagation*. 2022, 70(2), pp. 977-987.

[3] ŠVANDA, M. et al., Chipless RFID Tag with Enhanced RCS Used as a Phthalocyanine-Based Solvent Vapors Sensor, *IEEE Antennas and Wireless Propag. Letters*. 2020, 19(9), 1556-1560

[4] ŠVANDA, M. et al., Platform Tolerant, High Encoding Capacity Dipole Array-Plate Chipless RFID Tags. *IEEE Access*. 2019, 7(1), 138707-138720.

[5] ŠVANDA, M. et al., Polarisation Independent Chipless RFID Tag Based on Circular Arrangement of Dual-Spiral Capacitively-Loaded Dipoles with Robust RCS Response. *IET Microwaves, Antennas and Propagation*. 2018, 12(14), pp. 2167–2171.

[6] ŠVANDA, M. et al., Reliability Improvement of RF Identification of Shadowed People in Building Corridors Using Space Diversity. *Radioengineering*. 2018, 27(3), pp. 762-769.

[7] HAVLÍČEK, J., et al., Chipless RFID Tag Based on Electrically Small Spiral Capacitively Loaded Dipole. *IEEE Antennas and Wireless Propagation Letters.* 2017, 16(1), pp. 3051-3054.

[8] ŠVANDA, M., et al., Chipless RFID Tag with an Improved Magnitude and Robustness of RCS Response. *Microwave and Optical Technology Letters*. 2017, 59(2), pp. 488-492.

[9] MACHÁČ, J., et al., Reducing Mutual Coupling in Chipless RFID Tags Composed of U-Folded Dipole Scatterers. *Microwave and Optical Technology Letters*. 2016, 58(11), pp. 2723-2725.

[10] POLÍVKA, M., et al., Improvement in Robustness and Recognizability of RCS Response of U Shaped Strip-Based Chipless RFID Tags. *IEEE Antennas and Wireless Propagation Letters*. 2016, 15(1), pp. 2000-2003.

[11] HAVLÍČEK, J., et al., Improvement of Reading Performance of Frequency Domain Chipless RFID Transponders. *Radioengineering*. 2016, 25(2), pp. 219-229.

[12] ŠVANDA, M. and POLÍVKA, M. On-body semi-electrically-small tag antenna for ultra high frequency radio-frequency identification platform-tolerant applications. *IET Microwaves, Antennas & Propagation*. 2016, 10(6), pp. 631-637.

[13] POLÍVKA, M. and ŠVANDA, M. Stepped Impedance Coupled-Patches Tag Antenna for Platform-Tolerant UHF RFID Applications. *IEEE Transactions on Antennas and Propagation*. 2015, 63(9), pp. 3791-3797.

[14] ŠVANDA, M. and POLÍVKA, M. Matching Technique for an On-Body Low-Profile Coupled-Patches UHF RFID Tag and for Sensor Antennas. *IEEE Transactions on Antennas and Propagation*. 2015, 63(05), pp. 2295-2301.

[15] ŠVANDA, M. and POLÍVKA, M. Small-Size Wearable High-Efficiency TAG Antenna for UHF RFID of People. *International Journal of Antennas and Propagation*. 2014(2014), pp. 1-5.

[16] MORÁVEK, O., et al. Precise Measurement Using Coaxial-to-Microstrip Transition Through Radiation Suppression. *IEEE Trans. on Microw. Theory Techn.* 2013, 61(8), pp. 2956-2965.

[17] MACHÁČ, J., POLÍVKA, M., and ZEMLYAKOV, K. A, Dual Band Leaky Wave Antenna on a CRLH Substrate Integrated Waveguide. *IEEE Transactions on Antennas and Propagation*. 2013, 61(7), pp. 3876-3879.

[18] POLÍVKA, M., et al., Impedance Properties and Radiation Efficiency of Electrically Small Double and Triple Split-Ring Antennas for UHF RFID Applications. *IEEE Antennas and Wireless Propagation Letters*. 2013, 12(1), pp. 221-224.

[19] ŠVANDA, M., POLÍVKA, M., and HUDEC, P. Novel Low-Profile Foam Dielectric Over the Shoulder Antenna Based On Coupled Patches Technique. *Microwave and Optical Technology Letters*. 2013, 55(3), pp. 593-597.

[20] POLÍVKA, M. and VRBA, D., Input Resistance of Electrically Short Not-too-Closely Spaced Multi-Element Monopoles with Uniform Current Distribution. *IEEE Antennas and Wireless Propagation Letters*. 2012, 11(1), pp. 1592-1595.

[21] ŠVANDA, M. and POLÍVKA, M., Two Novel Extremely Low-Profile Slot-Coupled Two-Element Patch Antennas for UHF RFID of People. *Microwave and Optical Technology Letters*. 2010, 52(2), pp. 249-252.

[22] POLÍVKA, M. and VRBA, D., Shielded Micro-Coplanar CRLH TL Zeroth-Order Resonator Antenna: Critical Performance Evaluation. *Radioengineering*. 2009, 18(4), pp. 368-372.

[23] HOLUB, A. and POLÍVKA, M. Vertically Meander-folded, Shorted-patch Antennas. *Microwave and Optical Technology Letters*. 2009, 51(12), pp. 2938-2942. ISSN 0895-2477.

[24] VRBA, D. and POLÍVKA, M. Radiation Efficiency Improvement of Zeroth-Order Resonator Antenna. *Radioengineering*. 2009, 18(1), pp. 1-8.

[25] POLÍVKA, M., et al. UHF RF Identification of People in Indoor and Open Areas. *IEEE Transactions on Microwave Theory and Techniques*. 2009, 57(5), pp. 1341-1347.

[26] ŠVANDA, M. and POLÍVKA, M. Novel Dual-loop antenna Placed over Patch Array Surface for UHF RFID of Dielectric and Metallic Objects. *Microwave and Optical Technology Letters*. 2009, 51(3), pp. 709-713.

[27] POLÍVKA, M., HOLUB, A., and MAZÁNEK, M. Collinear Microstrip Patch Antenna. *Radioengineering*. 2005, 14(4), pp. 40-42. ISSN 1210-2512.

[28] HUDEC, P., POLÍVKA, M., and PECHAČ, P. Microwave System for the Detection and Localization of Mobile Phones in Large Buildings. *IEEE Transactions on Microwave Theory and Techniques*. 2005, 53(6), pp. 2235-2239. ISSN 0018-9480.

August 31, 2023