



Personal information

First name / Surname **Alina-Mihaela Badescu**
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E-mail alinabadescu@radio.pub.ro; badescuam@yahoo.com;
Nationality Romanian
Date of birth 19/12/1982

Professional experience:

Date 01.10.2008-ongoing
Employer University POLITEHNICA of Bucharest, Faculty of Electronics, Telecommunications and Information Technology
Sector Educational/Research
Position Assistant researcher/Lecturer/ **Associate professor**
Teaching Experience Lecturer in courses "Antennas & propagation"; "Satellite Communication"; "Introduction in Radio Astronomy";
Seminar/ laboratory activities in disciplines: Microwave, Transmission Media, Communication Systems, Analog-Digital Circuits, Data transmission on radio channels etc.
BSc/Msc thesis supervision Simulation of elementary antennas (2016); Radar systems for assisted driving (2015), Satellite signals propagation through ionosphere (2015); Dipole antennas for radio astronomic observations; Radio channel modelling in non-conventional media (2014); Antenna Array networks (2014) etc.
PhD supervising committee Liliانا Anchidin, Madalina Algiu, Adrian Andone- PhD coordinator prof. dr. eng. R. Tamaş (starting 2015); Ilie-Valentin Mihai, Ionut Serbanescu, Andreea Constantin - PhD coordinator prof. dr. eng. R. Tamaş (starting 2017)
Other educational/communication activities

- coordinator of more than 15 papers presented in the "Student communication sessions"
- research scholarships for students (MSc and BSc) from personal research grants
- evaluator of projects in the contest "Odysseus II" –April 2016, 2017, Czech Republic
- partner in organization of the contest "European Satellite Navigation Competition 2016 & 2017" (national section)
- *president/ member in the scientific committee* of section "Telecommunications" of the "UPB Student Scientific Communication Sessions"(2013-2016)
- **mentor/coordinator** of Constantin POPA - holder of UEFISCDI "Scholarship for young researcher" (2013 competition)

Studies:

Date 01.05.2014-30.11.2015
Title of qualification awarded Post doctoral degree
Subject Radio techniques for astroparticle detection
Institution University POLITEHNICA of Bucharest, Faculty of Electronics, Telecommunications and Information Technology
Date 01.11.2008-01.11.2011
Title of qualification awarded Ph.D. degree
Subject Radio techniques for astroparticle detection
Institution University POLITEHNICA of Bucharest, Faculty of Electronics, Telecommunications and Information Technology

Date 01.10.2006-01.01.2008
 Title of qualification awarded Master of Science degree
 Subject Advanced Techniques for Radio Astronomy and space science
 Institution Chalmers University of Technology, Gothenburg, Sweden

Date 01.10.2001-01.07.2006
 Title of qualification awarded Master of Science degree
 Subject Radio and Optics communications
 Institution University POLITEHNICA of Bucharest, Faculty of Electronics, Telecommunications and Information Technology

Competences

Native language Romanian
 Other languages **English, Spanish**

Level	Understanding		Speaking		Writing
	Listening	Reading	Conversation	Oral speach	Writing Competences
English	C2	C2	C2	C2	C2
Spanish	C2	C2	C2	C2	C2

Programming Languages Fortran, Python, C
Engineering Software: Ansys, NEC, Satlab, Matlab etc.

Scholarships:

Date 11.08.2013-11.09.2013
 Scholarship Research for academics A/13/03095
 Institution DAAD-Deutscher Akademischer Austauschdienst (Germany)

Date 09. 2006- 12. 2008
 Scholarship Guest Scholarship Programme
 Institution Svenska Institutet (Sweden)

Awards:

Date December 2017
 Award "Gheorghe Cartianu"
 Institution Romanian Academy

Date July 2016
 Award 1st prize "Researchers in science and Engineering"- 2016 edition
 Institution Cluj Napoca City Hall

Date 20-22, Aug 2015
 Award Best paper award; "International Conference on Electrical, Electronics and Instrumentation Engineering (ICEEI – Aug. 2015)"
 Institution ICEEI

Date 2013; 2014, 2015, 2016, 2017
 Award Articles in Q1/Q2 zone; Human resources programme
 Institution UEFISCDI

Date 20 April 2011
 Award IEEE "Best young scientist"
 Institution 21st International conference Radioelektronika, Brno

Research Projects (selective list)

Period; financier	2016-2018; European Research Council –Starting Grant (PE7 panel)
Title	Radio wave propagation in heterogeneous media: implications on the electronics of Cosmic Neutrino Detectors
Role in the project	Project manager
Institutions	UPB
Short description (main research points)	-description of antenna behaviour in non-conventional media; -radio propagation in heterogeneous media
Period; financier	08.2013-02.2016; John Templeton Foundation
Title	A quintessential Universe; nr. 42194
Role in the project	Project manager
Institutions	UPB
Short description (main research points)	-simulation of the role of the radio detection chain on the radio signal produced by cosmic rays -implications on the construction of a "Pierre Auger" observatory
Period/financier	2012-2015/ UEFISCDI
Title	AugerNext ; nr. 1 ASPERA2 ERA-NET- FP7
Role in the project	Affiliated Researcher
Institutions	IFIN-HH
Period/financier	2008-2011/ UEFISCDI
Title	Detection systems for Cosmic Radiation using new technologies - PN-II PARTENERIAT P-82-104S/2008
Role in the project	Researcher
Institutions	IFIN-HH; UPB;UB
Period/financier	2008-2011/ UEFISCDI
Title	Hybrid wireless systems with unique accessing PN-II PARTENERIAT P-12-126/2008
Role in the project	Researcher
Institutions	IFIN-HH; UPB;UP; ROSA

Experimental research

Development of a remote calibration method for the 124 antenna array of "Auger Engineering Radio Array"; Karlsruhe Institute of Technology (2013)

Construction of radio detection network "Auger Engineering Radio Array II" (Malargue, Argentina, 2012)- assembly, testing, and installation of 100 radio stations (each consisting of: antenna for comms, antenna for physics +RF chain, photovoltaics etc)

Dielectric permittivity measurements of salt samples at Tokyo Metropolitan University, Japan (2010)

Others:

Chair person- IEEE 4th Asia-Pacific Conference on Antennas and Propagation, June 30 – July 3, 2015, Bali, Indonesia; **Session "Antenna Arrays and Systems";**

Chair person -IEEE 10th International Conference on Wireless Communications, Networking and Mobile Computing, Beijing, 27-28 Oct 2014; **Session "Wireless networks section"**

Invited professor lecture/seminar: "Detection of cosmic radiation using new technologies", Seikei University (Tokyo, Japan), 24.11.2010; "Studies on lateral distribution of radio signal", Karlsruhe Institute of Technology (Karlsruhe, Germany), 30.11.2010

Reviewer at Modern Internet of Things (MIOT), American V-King Scientific Publishing Company (starting 2013); Member in the **Technical program committee** for International Conference on Localization and GNSS (2016, 2017); **Reviewer** at 2017 IEEE - 2017 IEEE Asia Pacific Microwave Conference (APMC);

Member of international organizations & collaborations:

IEEE Antenna and propagation Society (*vicepresident*- Romania section)
Pierre Auger Observatory (UPB representative); ASPERA; EuroScience
GWIS (Graduate Women in Science)-country representative (starting 2014)
Space Generation Advisory Council- -country representative (2014-2016)

Published Work (Selective List)

A.M. Badescu, 2016, Antenna engineering, MatrixRom, Bucharest, ISBN:978-606-25-0307-9
A.M. Badescu, 2013, Radio Detection of Cosmic Neutrinos in Salt Mines, LAP Lambert Publishing GmbH & Co. KG, Saarbrücken, ISBN 978-3-659-35097-9;
A.M. Badescu, 2015, Introducere in Radioastronomie (ed II), MatrixRom, Bucharest, ISBN 978-606-25-0177-8
A.M. Badescu, 2016, Simulation of event reconstruction of cosmic particles with a radio network, IEEE Systems Journal, online available [ISI, IF 3.88]
A.M. Badescu, A.S. Simion, 2016, Array of antennas for cosmic radio observations, Romanian Reports in Physics, vol 68, no 2., ISSN: 1221-145 [ISI, IF 1.46]
A.M. Badescu, Dragos Matei, 2015, A baseline design for a radio interferometer, Proceedings of IEEE APWC & IEEE-APS Topical Conference on Antennas and Propagation in Wireless Communication, 07-11 September, Torino, Italy; ISBN 978-1-4799-7808-3; pag. 105-108; INSPEC Accession Number: 15525058; DOI:10.1109/APWC.2015.7300145 [IEEE Xplore]
A.M. Badescu, 2013, Considerations on an underground neutrino radio detector in salt, *JINST* 8 P03010 doi:10.1088/1748-0221/8/03/P03010, ISSN 1748-0221 [ISI, IF 1.22]
A.M. Badescu, O. Fratu, S. Halunga, I. Marcu, 2009, Consideration on Wave Propagation in Underground Dielectrics, Proceedings of Loughborough Antennas & Propagation Conference, Loughborough, UK; ISBN: 978-1-4244-2720-8; pag. 377 - 380; INSPEC Accession Number: 11008727; DOI: 10.1109/LAPC.2009.5352370 [IEEE Xplore]
A.M. Badescu, C.E. Stefan, A. Saftoiu, I. Brancus, B. Mitrica, 2014, Performances of the radio chain in a high energy particle detector, Proceedings of 10th International Conference on Wireless Communications, Networking and Mobile Computing, Beijing, 27-28 Oct, ISBN: 978-1-84919-845-5, pag 316-321, INSPEC Accession Number: 14854201; DOI:10.1049/ic.2014.0120 [IEEE Xplore]

Index Hirsch (according to Thomson Reuters) **19**
No of articles ISI Web of Science (according to Thomson Reuters): **80**
No of citations (according to Thomson Reuters): **1200**

06.05.2018

Alina-Mihaela Badescu