


NAME AND CURRENT CONTACT
DETAILS

Ladislau MATEKOVITS

Address



Phone



E-mail


ladislau.matekovits@polito.it

Gender

Male

Date of birth

Nationality

Italian, Romanian

QUALIFICATIONS

2014-present

Associate Professor

Politecnico di Torino, Torino, C.so Duca degli Abruzzi nr 24, 10129 Torino, Italy

Type / sector of activity

Education and research

Principal subjects / occupational skills

Education, research, university management

2014-2018

Honorary Fellow (4-year term)

Macquarie University, Sydney, 2109, NSW, Australia

Type / sector of activity

Education and research

Principal subjects / occupational skills

Education, research, university management

2009-2012

Marie Curie Fellow

Macquarie University, Sydney, Australia and Politecnico di Torino, Torino, Italy

Type / sector of activity

Research

Principal subjects / occupational skills

Research project management

1996-2014

Lecturer, researcher, laboratory technician

Politecnico di Torino, Torino, Italy.

Type / sector of activity

Education and research

Principal subjects/ occupational skills

Education, research, university management

EDUCATION AND TRAINING

Title of qualification awarded

PhD (Dottore di ricerca)

Politecnico di Torino, Torino, Italy

Electromagnetism

Date (from - to)

1992-1995

Title of qualification awarded

Electronic and Telecommunication Engineer – 5 years

Institutul Politehnic din București (IPB), Romania

General and specific competencies in radiocommunication

1986-1992

Title of qualification awarded

Electronic Engineer

Politecnico di Torino, Torino, Italia

PERSONAL SKILLS

 Research, project management and education in Antennas,
Electromagnetics and related fields

Mother language

Hungarian

Other languages	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Conversation	Oral speech	
Romanian	C2	C2	C2	C2	C2
Italian	C2	C2	C2	C2	C2
English	C1	C1	C1	C1	C1
France	A1	A1	A1	A1	A1

Legend C: proficient user, B: independent user, A: Basic user, (2 better than 1)

Communication skills Good communication skills acquired during the long term experience in delivering classes in various high education institutions and in different languages (Italian, Romanian, English) and by active participation in international research teams in different countries

Organization/managerial skills

- Member of different committees at Department and PhD school level.
- Leadership (I am tutoring various PhD and Master students)

Informatics skills

- Microsoft Office
- Matlab, Fortran
- Simulation Software for electromagnetic analysis (CST; HFSS; FEKO; etc.)

SUPLIMENTARY INFORMATION

Publications (total)	72 journal papers, 258 conf. papers, 3 books, 3 book chapters. h-factor: 21 (Scopus)
Patents (total)	3 granted patents
Projects (total)	International: responsible (Principal investigator) – 1 (European), 1 other, participant (researcher) – 4; National: responsible – 2 (Italy): participant – 14 (Italy, Australia, Romania);
Awards (selection)	URSI Young Scientist Award 1998; Best AP2000 Oral Paper on Antennas, ESA-EUREL Millennium Conf. on Antennas & Propagations, 2000, Davos, Switzerland; International collaboration award (Australian Research Council - 2013); Micro Media Grant - Marie Curie Alumni Association (2014); Associate Editor of the month - IEEE ACCESS Nov. 2015.
Conference organizations (selection)	Assistant Chairman of the TPC of the European Microwave Conference 2002 and of the European Microwave Week Local Committee, 23-27 Sept. 2002, Milan, Italy General Chair 11 th International Conference on Body Area Networks (BodyNets 2016), 15-16 Dec., 2016, Torino, Italy
Memberships	IEEE (Member -1994, Senior Member – 2011 - present) ARA (American Romanian Academy of Arts and Sciences) (Member, 2016-present)
Editor	Associate Editor - IEEE ACCESS (2014 - present); Associate Editor - IET Microwaves, Antennas and Propagation (2016 - present);

Associate Editor - IEEE Antennas and Wireless Propagation Letters (AWPL) (2017 - present);

Member of the organizing Committee: International Conference on Electromagnetics in Advanced Applications: (2012-present)

Professional qualification

National qualification for Full Professor in Electromagnetic fields, Italy (Abilitazione Scientifica Nazionale, Prima Fascia) 20/7/2017.

ACADEMIC AWARDS: Professional honours, awards, prizes, fellowships etc. (full career):

1. TEMPUS JEP 2736-91/1 *Scholarship* - Electronics Department (Polito), student, 03/1992-07/1992.
2. *Student Researcher Award 1997*-Raj Mittra Travel Grant-. This award partially funds travels and accommodation for participation to 1997 IEEE AP-S Int'l Symp. and URSI North American Science Meeting, July 13–18, 1997 Montreal, Canada.
3. *URSI Young Scientist Award 1998*, URSI Electromagnetic Theory Symposium, May 1998, Thessaloniki, Greece.
4. *Young Scientist Award* (Barzilai Award), XII Riunione Nazionale di Elettromagnetismo, 28 Set.-1 Oct. 1998, Cetraro, (Cs), Italia.
5. *Young Scientist Award*-10th MICROCOLL, 21-24 March 1999, Budapest, Hungary.
6. *Best AP2000 Oral Paper* on Antennas, ESA-EUREL Millenium Conference on Antennas & Propagation, 9-14 April 2000, Davos.
7. *Marie Curie International Outgoing Fellowship (IOF)* – 2007. Project title: *Analysis of Low-cost Original Holographic Antenna: Theoretical Overview, Notes, Study, Design and Easy Implementation* (“ALOHA TORINO-SYDNEY”).
8. Australian Research Council-Communication Research Network (ACoRN) *travel grant* to attend the European Microwave week 2009 in Rome.
9. *International collaboration award* (ICA): Australian Research Council (ARC) Discovery grant (2013-2015). Project ID: DP130102009. *Dual-Band Antennas with Digitally Steerable Beams Made out of Multi-State Electromagnetic Elements*. Total budget: A\$ 400.000. International Collaboration Award (ICA) value A\$ 4.000. Visiting Academic at Macquarie University, Sydney 1/3/-31/7 2013.
10. *Micro Media Grant* - Marie Curie Alumni Association (2014), 250 Euro, for the publication of the paper: L. Matekovits, T. S. Bird “Width-modulated Microstrip-line based Mantle Cloaks for Thin Single- and Multiple Cylinders”, *IEEE Trans. Antennas and Propagat.*, Vol. 62, No. 5, pp. 2606 - 2615, May 2014.
11. *Certificate of Award* - Marie Curie Fellowship, Brussels, 08/10/2015.
12. *Associate Editor of the month* – IEEE ACCESS – Nov. 2015.
13. *Micro Travel Grant* - Marie Curie Alumni Association (2017), 400 Euro, to participate at the 2017 IEEE International Symposium on Antennas and Propagation/USNC-URSI National Radio Science Meeting, July 9 - 14, 2017, San Diego, California, U.S.A..
14. *Motohisa Kanda Award 2019*: for the most cited paper of the IEEE Transactions on EMC in the past five years. “The paper I. Sohail, Y. Ranga, L. Matekovits, K. P. Esselle, S. G. Hay, “A single-Layer Frequency Selective Surface for Ultra-Wideband Electromagnetic Shielding”, *IEEE Trans. Electromagnetic Compatibility*, Vol. 56, No. 6, pp. 1404 - 1411, Dec. 2014 and another one has received the highest citations (51) among all the papers published in the last 5 years (2014-2018).” (e-mail of March 28, 2019 from the EiC of the *IEEE Trans. Electromagnetic Compatibility*)

COMPETITIVE RESEARCH FUNDING: (SELECTION):

1. *Analysis of Low-cost Original Holographic Antenna: Theoretical Overview, Notes, Study, Design and Easy Implementation* (“ALOHA TORINO-SYDNEY”). Marie Curie International Outgoing Fellowship (IOF). Role: *principal investigator*. Period: 1/7/2009-30/6/2011 (outgoing phase 2 years at Macquarie University, Sydney, Australia) and 1/7/2011-30/6/2012 (reintegration - Politecnico di Torino). Results: 1 patent, 12 journal papers, 46 conference papers (including 4 invited papers and 1 invited talk). Value: 327,000 Euro.

2. *Dual-Band Antennas with Digitally Steerable Beams Made out of Multi-State Electromagnetic Elements*. Australian Research Council (ARC) Discovery grant (2013-2015). Project ID: DP130102009. Proponents: Karu Esselle, Michael Heimlich, Trevor S. Bird, Ladislau Matekovits, Stuart G. Hay. Role: **partner investigator**. Value: AU\$ 400,000.
3. *Innovative planar antennas for THz systems*, Progetti di internazionalizzazione della ricerca-2013, funded by Compagnia di San Paolo and Politecnico di Torino. Investigators: P. Pirinoli, L. Matekovits, M. Orefice, from Polito and Prof. F. Yang, A/Prof. S. Xu, Tsinghua University, Beijing, China. Role: **researcher**. Duration 12 months. Start: 10/13. Value: 40,000 Euro. Follow-on: 6 months. Value: 10,000 Euro
4. *Compact Composite Cavity Resonator Antennas with Wide Bandwidths*, Australian Research Council (ARC) Discovery grant (2015-2018). Project ID: DP150103242. Proponents: Karu Esselle, Trevor S. Bird, Ladislau Matekovits, Stuart G. Hay, Per-Simon Kildal. Role: **partner investigator**. AU\$ 485,100.
5. *Advanced Non-radiating Architectures Scattering Tenuously and Sustaining Invisible Anapoles* (ANASTASIA), Progetti di internazionalizzazione della ricerca-2017, funded by Compagnia di San Paolo and Politecnico di Torino. Investigators: L. Matekovits, L. Lussardi (Polito) and Alexey Basharin, National University of Science and Technology "MISiS", Moscow, Russia. Role: **principal investigator**. Duration 12 months. Start: 20/9/17. Value: 50,000 Euro. Follow-on: 5 month. Value: 5,000 Euro.
6. *Beam Steering of High-Gain Antennas using Metasurfaces*, Australian Research Council (ARC) Discovery grant (2019-2022). Project ID: DP190103352. Investigators: Karu Esselle, J(Yiannis) Vardaxoglou, Stefano Maci, David Bulger, Ladislau Matekovits. Total budget: A\$ 570.000. Role: **partner investigator**. Duration 48 months. Start: 1/1/19.

PUBLICATIONS: A list of (full career) publications is attached as Optional material.

Book Chapters:

1. Y. Ranga, Karu P. Esselle, **L. Matekovits**, Making UWB Antennas Unidirectional: Phase Coherence, with an Ultra-Wide Band Frequency Selective Surface Reflector, (Ch. 10 in) *The World of Applied Electromagnetics: In Appreciation of Magdy Fahmy Iskander, Akhlesh Lakhtakia and Cynthia M. Furse* (Editors), Springer, 2017.
2. I. Peter, **L. Matekovits**, M. Rosso, Up-to-date knowledge and outlooks for the use of metallic biomaterials - review paper in *Biomaterials in Regenerative Medicine*, Editor Leszek A. Dobrzański, InTech, June 2017.
3. G. Labate, L. Matekovits, A. Alù, "Metamaterial and metasurface cloaking: principles and applications", Chap. 10 in *Surface Electromagnetics* (in press).

Journal papers: 72 published articles in high-rank journals (IEEE Tran. APS/MTT/EMC - 10+, Scientific Reports - 3, etc.),

Conference papers: Regularly present at IEEE International Symposium on Antennas and Propagation/USNC-URSI National Radio Science Meeting, European Conference on Antennas and Propagation (EuCAP), International Conference on Electromagnetics in Advanced Applications and other. The number of conference papers for the last 5 years is as follows: 2014: 15 articles / 2015: 18 articles / 2016: 16 articles / 2017: 10 articles / 2018: 15 articles.

Others: Patents

1. **L. Matekovits**, G. Vietti Colomé, P. Pirinoli, M. Orefice, Dispositivo con costante dielettrica modulata per la propagazione di onde elettromagnetiche, Nr: RA2006A000064. Data: 3/11/2006.
1.a) Extension Europe: Device for the propagation of electromagnetic waves with modulated dielectric constant. **Granted:** 02/05/2012, EP1919024 B1.
2. **L. Matekovits**, M. Orefice, K.P. Esselle, M. C. Heimlich, Metodo di Realizzazione di Una Struttura Accordabile Elettronicamente, e Struttura Accordabile Elettronicamente. Nr: TO2010A000536. Data 22/06/2010. **Granted:** 02/07/2013.
3. G. Dassano, **L. Matekovits**, M. Orefice, G. Vietti Colomé, An antenna system for transmission and reception of multifrequency wideband signal from and into a tyre Nr: MI2010A000606. Data: 9/04/2010.
3.a) Extension Europa: "Tyre sensor device", Nr: EP20110718306, **Granted:** 22 /01/2014, EP2555930 B1;
3.b) Extension USA: "Tyre sensor device", Nr. 13/639.591, **Granted:** 27/10/2015, US9168795 B2.



Ladislau Matekovits (M'94–SM'11) received the degree in electronic engineering from Institutul Politehnic din București, București, Romania, and the Ph.D. degree (Dottorato di Ricerca) in electronic engineering from Politecnico di Torino, Torino, Italy, in 1992 and 1995, respectively. Since 1995, he has been with the Department of Electronics and Telecommunications, Politecnico di Torino, first with a post-doctoral fellowship, then as a Research Assistant. He joined the same Department as Assistant Professor in 2002 and was appointed as Senior Assistant Professor in 2005 and as Associate Professor in 2014 respectively. In February 2017 he obtained the Full Professor national qualification (Italy). In late 2005, he was Visiting Scientist at the Antennas and Scattering Department, FGAN-FHR (now Fraunhofer Institute), Wachtberg, Germany. Beginning July 1, 2009, for two years he has been a Marie Curie Fellow at Macquarie University, Sydney, NSW, Australia, where in 2013 he also held a Visiting Academic position and in 2014 has been appointed as Honorary Fellow.

His main research activities concern numerical analysis of printed antennas and in particular development of new, numerically efficient full-wave techniques to analyze large arrays, optimization techniques and active and passive metamaterials for cloaking applications. Material parameter retrieval of these structures by inverse methods and different optimization techniques have also been considered. In the last years, bio-electromagnetic aspects have also been contemplated, as for example design of implantable antennas or development of nano-antennas for example for drug delivery applications.

He has published 300+ papers, including 70+ journal contributions, and delivered seminars on these topics all around the world: Europe, USA (AFRL/MIT-Boston), Australia, China and Russia. Prof. Matekovits has been invited to serve as Research Grant Assessor for government funding calls (Romania, Italy, Croatia) and as International Expert in PhD thesis evaluation by several Universities from Australia, India, Pakistan, Spain, etc..

Prof. Matekovits has been a recipient of various awards in international conferences, including the 1998 URSI Young Scientist Award (Thessaloniki, Greece), the Barzilai Award 1998 (young Scientist Award, granted every two years by the Italian National Electromagnetic Group), and the Best AP2000 Oral Paper on Antennas, ESA-EUREL Millennium Conference on Antennas and Propagation (Davos, Switzerland).

He has been Assistant Chairman and Publication Chairman of the European Microwave Week 2002 (Milan, Italy), and General Chair of the 11th International Conference on Body Area Networks (BodyNets) 2016. Since 2010 he is member of the organizing committee of the International Conference on Electromagnetics in Advanced Applications (ICEAA) and he is member of the technical program committees of several conferences. He serves as Associated Editor of the IEEE ACCESS, IEEE Antennas and Wireless Propagation Letters and IET MAP and reviewer for different journals.