

Prof Danilo P. Mandic, PhD, MSc, MEng (Hons), FIEEE

MEMBERSHIP OF PROFESSIONAL BODIES	Appointed on the Council of Experts, United Nations International Council on Environmental Economics and Development (ICEED), https://i-ceed.org/	2025–
	President, <i>International Neural Network Society (INNS)</i>	2023–2024
	Distinguished Lecturer, <i>IEEE Computational Intelligence Society</i>	2023–2025
	Distinguished Lecturer, <i>IEEE Signal Processing Society</i>	2023–2024
	Fellow of the Industry Academy, International Artificial Intelligence Industry Alliance (AIIA)	2024–
	Advisory Board, <i>PhD degree in Electrical and Information Eng.</i> , Polytechnic of Bari, Italy	2024–
	International Evaluator for Control Science and Engineering Discipline, Harbin Engineering University, Harbin, China	2022–
	Advisory Board, <i>MSc in Computational Finance Programme</i> , Greenwich University, UK	2022–
	Advisory Board, <i>Science and Technology Select Committee: Governance on Artificial Intelligence</i> , House of Commons, UK	2022
	Task Force on <i>Complex Valued Neural Networks</i> (Chair), IEEE Comput. Intellig. Soc.	2022–
	Advisory Board, <i>Institute of Mathematical Physical and Computational Sciences</i> , University of Coventry, UK	2021–
	Advisory Board, <i>TalisLife</i> , an international company, Switzerland	2021–
	Permanent Panel Member, <i>Laureate Awards Scheme</i> , Irish Research Council, Ireland	2021–
	Chair, <i>Task Force on Complex and Hyper-Complex Neural Networks</i> , IEEE Computational Intelligence Society	2021–
	Assessor for 2021 Endeavour Fund Smart Ideas Concepts for the New Zealand Ministry of Business, Innovation and Employment (MBIE)	2019
	Accreditation Committee for the MEng and MSc degrees (external member, 6-yearly accreditation by QANU), Department of Computer Science, University of Groningen, The Netherlands,	2019
	Fellows Committee, IEEE Computational Intelligence Society, Member,	2019–
	Vice-President for Public Relations, International Neural Networks Society (INNS)	2019–2020
	Member, Autonomous Machine Learning chapter, International Neural Networks Society	2019–
	Liaison between the IEEE Signal Processing Society and Wiley publishers	2018–
	Region 8 representative for the IEEE SPS TC on Bio-imaging and Signal Processing TC	2018–
	Member of the Big Data special interest group (Big Data SIG), IEEE SPS	2018–
	Bio-imaging and Signal Processing Technical Committee Member, IEEE Sig. Proc. Soc.	2018–
	Education Technical Committee Member, IEEE Signal Processing Society	2018–
	Core Member of the Machine Learning Initiative, <i>Imperial College London</i> , London, UK	2017–
	Permanent Panel Member, <i>Laureate Awards Scheme</i> , Irish Research Council, Ireland	2017–2019
	Advisory Committee for the <i>Artificial Intelligence Education Program</i> KAIST, Korea	2017–
	Task Force on <i>Computational Audio Analysis</i> , IEEE Computational Intelligence Society	2015–
	Co-Chair of the <i>Big Data Analytics</i> chapter, International Neural Networks Society (INNS)	2014–
	Fellow of the IEEE	2013–
	APSIPA Technical Committee on <i>Signal and Information Processing</i>	2013–
	Board of Governors of the International Neural Networks Society (INNS)	2013–
	Panstanford Publishing, advisory editorial panel on communications and signal processing	2012–
	FWO (Research Foundation Flanders - Belgium), permanent panel member	2011–2015
	EPSRC Peer Review College, United Kingdom	2007–2009 & 2010–
	Technical Committee <i>Signal Processing Theory and Methods</i> , IEEE Signal Proc. Soc.	2011–2016
	Task Force on <i>Smart Grid</i> , IEEE Computational Intelligence Society	2010–
	Task Force on <i>Complex Valued Neural Networks</i> (Co-Chair), IEEE Comput. Intellig. Soc.	2010–2021
	Technical Committee on <i>Signal Analysis for Machine Intelligence</i> , Int. Assoc. Pattern Rec.	2007–
	Visiting Lecturer, for the “Brain Gain Programme” within World University Service	2005–2006
	Technical Committee <i>Machine Learning for Signal Processing</i> , IEEE Signal Proc. Soc.	2005–2008
	Senior Member of the IEEE	2003–
	Technical Committee on <i>Neural Networks for Signal Processing</i> , IEEE Signal Proc. Soc.	2001–2004
	London Mathematical Society	2000–

JOURNAL
EDITORSHIP

Associate Editor

IEEE Signal Processing Magazine, Senior Editorial Board	2022–2024
Elsevier Neural Networks	2018–2020
Journal of Concussion	2017–2019
IEEE Transactions on Signal and Information Processing over Networks	2014–2018
IEEE Signal Processing Magazine	2011–2017
IEEE Transactions on Neural Networks and Learning Systems	2008–2013
IEEE Transactions on Signal Processing	2007–2010
IEEE Transactions on Circuits and Systems II	2002–2004
Journal of Signal Processing Systems	2002–2004
International Journal of Mathematical Modelling and Algorithms, Springer	2002–2009

Guest Editor for special issues of journals

<i>Artificial Intelligence for Education: A Signal Processing perspective</i> , IEEE Signal Processing Magazine,	in progress
<i>“Graph Representation Learning”</i> , Neural Networks,	in progress
<i>“AI-Generated Content for Multimedia”</i> , IEEE Transactions on Circuits and Systems for Video Technology, vol. 34, no. 8	August
<i>“Innovation Starts with Education”</i> , IEEE Signal Processing Magazine,	May 2021
<i>“Deep Neural Network Representation and Generative Adversarial Learning”</i> , Elsevier Neural Networks, vol. 127, July issue	2021
<i>“Information Theory and Complexity Science Approaches to Health Conditions and Cognitive Decline”</i> , Entropy, vol. 21, October	2019
<i>“Information Theory Applied to Physiological Signals”</i> , Entropy, vol. 20, no. 82,	2018
<i>“Hypercomplex Signal Processing”</i> , Signal Processing, vol. 136C, no. 7,	2017
<i>“Financial Signal Processing and Machine Learning for Electronic Trading”</i> , IEEE Journal on Selected Topics in Signal Processing, vol. 10, no. 6,	2016
<i>“Signal Processing in Smart Electric Power Grid”</i> , IEEE Journal on Selected Topics in Signal Processing, vol. 7, no. 4,	2014
<i>“Complex- and Hypercomplex-Valued Neural Networks”</i> , IEEE Transactions on Neural Networks and Learning Systems, vol. 35, no. 9,	2014
<i>“Advances in Adaptive Signal Processing”</i> , IEICE Trans. (Japan)	vol. E94-A, no. 8, 2011
<i>“Advances in Theories of Signal Processing”</i> , IEICE Trans. (Japan)	vol. E92-A, no. 3, 2009
<i>“Computational Biology Inspired Neural Networks”</i> , Neural Networks	vol. 21, no. 6, 2008
<i>“Blind Signal Processing”</i> , Neurocomputing	vol. 71, no. 10-12, 2008
<i>“Advances in Data Fusion”</i> , Journal of Signal Processing Systems	vol. 49, no. 2, 2007
<i>“Machine Learning for Signal Processing”</i> , Journal of Signal Proc. Sys.	vol. 45, no. 1-2, 2006

PATENTS

<i>Detection and monitoring of respiratory conditions with photoplethysmography (PPG)</i> , Inventors: H. Davies, D. P. Mandic, and N. Peters	
<i>Patent application</i> , PCT/GB2023/051987	August 2023
<i>Electrocardiogram Apparatus and Method</i> , Inventors: W. von Rosenberg, V. Goverdovsky, T. Chanyimalueang, and D. P. Mandic, filed in	October 2017
<i>UK Patent GB2567648 (granted)</i> ,	14 September 2022
<i>US patent US11633142B2 (granted)</i>	25 April 2023
<i>Apparatus, Method and Computer Program for Treating Benign Paroxysmal Positional Vertigos</i> , Inventors: B. Seemungal and D. P. Mandic	
Submitted to the UK Patent Office,	November 2020
<i>Digital self-interference eliminating method of zero-medium-frequency full-duplex transceiver</i> , Inventors: Y. Xia, Z. Li, W. Pei, K. Wang, and D. P. Mandic	
<i>Chinese Patent, CN 108111186 A, (granted)</i>	April 2019

Frequency Estimation, Inventors: D. P. Mandic, Y. Xia, and D. Dini
 (granted), 12 June 2018
UK Patent GB 2506626 (granted), 9 January 2018
European Patent EP2904407B1 (granted), 8 April 2020

Compensation method and apparatus for transmitter IQ imbalance, Inventors: Y. Xia, W. Pei, F. Zhao, Z. Li, and D. P. Mandic
Chinese Patent, CN 104717172 B, (granted), 20 March 2018

Dual Modality Sensor with Biosensing Electrodes, Inventors: D. Looney, V. Goverdovsky, and D. P. Mandic
US patent (granted), US10463309B2, 5 November 2019
European patent (granted) EP3094235B1 29 April 2020

A Hearing Aid Adapted for Detection of Brain Waves and a Method for Adapting Such a Hearing Aid, Inventors: P. Kidmose, D. P. Mandic, M. Ungstrup, D. Looney, C. Park, M. L. Rank
US Patent US9025800B2 (granted), 5 May 2015
Danish Patent and Trademark Office, Patent PA-200970060 (granted), 8 July 2012

CONFERENCE
ORGANISATION

- 2025: **Workshop Co-Chair**, “AI for Education”, *IEEE International Joint Conference on Neural Networks (IJCNN’25)*, Rome, Italy, July 2025.
- 2024: **General Co-Chair**, *IEEE Workshop on Machine Learning for Signal Processing (MLSP’24)*, London, UK, September 2024.
General Co-Chair, IEEE International Conference on Mechatronics and Automation, Tianjin, China, August 2023.
Workshop Co-Organiser, “AI Innovations for Education: Transforming teaching and learning through cutting-edge technologies”, *IEEE World Congress on Computational Intelligence, WCCI’24*, Yokohama, Japan, July 2024.
Special Session Co-Organiser, “Complex- and Hypercomplex-valued Neural Networks”, *IEEE World Congress on Computational Intelligence, WCCI’24*, Yokohama, Japan, July 2024.
- 2023: **General Co-Chair, 24th International Conference on Digital Signal Processing**, Rhodes Island, Greece, June 2023.
General Co-Chair, IEEE International Conference on Mechatronics and Automation, Harbin, China, August 2023.
Special Session Organiser, “Complex valued and quaternionic neural networks: Theory and applications”, *IEEE International Joint Conference on Neural Networks, IJCNN’23*, Gold Coast, Australia, July 2023.
- 2022: **Co-Organiser, IEEE-SPS/EURASIP Summer School on Data and Graph Driven Learning for Communications and Signal Processing**, Banja Luka, Bosnia and Herzegovina, September 2022.
Special Session Organiser, “Hypercomplex-valued neural networks: Theory and applications”, *World Congress on Computational Intelligence*, Padova, Italy, July 2022.
- 2021: **General Chair, 2021 International Symposium of Intelligent Unmanned Systems on Artificial Intelligence (SIUSAI 2021)**, Singapore, 19–21 April 2021
Honorary Chair, “*International Forum on Signal Processing (IFSP’21)*”, Sanya, China
- 2020: **Awards Committee**, “World Congress on Computational Intelligence (WCCI’20)”, Glasgow, UK
Special Session Co-Organiser, “*Signal Processing Methods for Finance Applications*”, *IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP’20*, Barcelona, Spain
- 2019: **Technical Program Chair, IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP’19)**, Brighton, UK
Education Panel Co-Organiser, IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP’19), Brighton, UK
Special Sessions Chair, European Signal Processing Conference (EUSIPCO’19), La Coruna, Spain

- Special Sessions Chair**, *IEEE International Joint Conference on Neural Networks, IJCNN'19*, Budapest, Hungary
- 2018: **Technical Program Co-Chair**, *IEEE International Digital Signal Processing Conference (DSP'18)*, Shanghai, China
- Special Session Organiser**, *Signal Processing Education: Challenges and Technology Driven Opportunities*, IEEE International Digital Signal Processing Conference (DSP'18), Shanghai, China
- Special Session Organiser**, *Complex-Valued and Quaternionic Neural Networks*, World Congress of Computational Intelligence (WCCI'28), Rio de Janeiro, Brazil
- 2017: **General Co-Chair**, *IEEE International Digital Signal Processing Conference (DSP'17)*, London, UK
- European Liaison**, *IEEE International Joint Conference on Neural Networks, IJCNN'17*, Anchorage, USA
- Area Chair**, *Signal Processing for Power Grids*, European Signal Processing Conference, EUSIPCO'17, Kos, Greece
- 2016: **Special Session Organiser**, *Making sense of multi-channel physiological data for pervasive health applications*, IEEE Workshop on Statistical Signal Processing, (SAM'16), Majorca, Spain
- General Co-Chair**, *IEEE International Digital Signal Processing Conference (DSP'16)*, Beijing, China
- 2015: **General Co-Chair**, IEEE International Digital Signal Processing Conference (DSP'15), Singapore
- Publication Chair**, *The First INNS Big Data Analytics Conference*, San Francisco, USA
- International Advisory Committee**, *International Conference and Workshop on Cloud Computing & Virtualization (ICWCCV'15)*, Mumbai, India
- 2014: **General Co-Chair**, *International Conference on Digital Signal Processing (DSP'14)*, Hong Kong
- Member of the Steering Committee**, *Third Conference on Innovations in Electronics and Communications Engineering*, Hyderabad, India
- Publicity Chair**, *World Congress on Computational Intelligence (WCCI)*, Beijing, China
- 2013: **Plenary Talks Chair**, *EUSIPCO'13*, Marrakech, Morocco
- Special Session Organiser**, *Complex Valued Neural Networks*, at the IEEE International Joint Conference on Neural Networks, (IJCNN'13)
- General Chair**, *First International Workshop on Assistive Computer Vision and Robotics*, in conjunction with the 17th International Conference on Image Analysis and Processing (ICIAP), Naples, Italy
- Track Chair**, Nonlinear Signal Processing, *EUSIPCO'13*, Marrakech, Morocco
- 2012: **Special Session Organiser**, *Cooperative Adaptive Estimation*, at the Asilomar Conference on Signals and Systems, Asilomar'12
- Special Session Organiser**, *Complex Valued Neural Networks*, at the IEEE International Joint Conference on Neural Networks, (IJCNN'12)
- Workshop Organizer**, *Activity Monitoring by Multi-Camera Surveillance Systems (AMMCSS)*, at the IEEE International Conference on Systems, Man, and Cybernetics (SMC'12)
- 2011: **Special Session Organiser**, *Machine Learning and Signal Processing for Smart Grid Applications*, at the IEEE International Joint Conference on Neural Networks, (IJCNN'11)
- Special Session Organiser**, *Complex Valued Neural Networks*, at the IEEE International Joint Conference on Neural Networks, (IJCNN'11)
- Honorary Chair**, *3rd IEEE International Conference on Signal Processing Systems*, (ICSPS'11)
- European Liaison**, *International Symposium on Neural Networks*, (ISNN'11)
- 2010: **Track Chair** for the "Digital Signal Processing" stream in the IEEE Asia Pacific Conference on Circuits and Systems (APCCAS'10)
- Programme Co-chair**, IEEE International Conference on Signal Processing Systems (ICSPS'10)
- Special Session Organiser**, "Machine Learning for Renewable Energy Applications", at the IEEE International Joint Conference on Neural Networks, (IJCNN'10)
- Special Session Organiser**, "Computational Intelligence for Safe and Secure Environments and Transport", at the IEEE International Symposium on Industrial Electronics (ISIE'10)

- 2009: **Special Session Organiser**, “*Collaborative Signal Processing for Distributed Systems*” in the third ACM/IEEE Conference on Distributed Smart Cameras (ICDSC’09)
Track Chair for the “*Detection and Estimation*” stream in the IEEE Statistical Signal Processing
Area Chair for the “*Nonlinear Signal Processing*” area at EUSIPCO, Aalborg, Denmark
- 2008: **Special Session Organiser**, “*Multichannel Exploratory Data Analysis*” in the International Conference on Intelligent Computing (ICIC’08)
Track Co-Chair for the “*Networked Industrial Automation*” stream in the 4th IEEE Conference on Automation Science and Engineering (IEEE CASE 2008)
- 2007: **Mini-Symposium Organiser**, “*Advanced Signal Processing Techniques for Brain Data Analysis*” in the First International Conference on Cognitive Neurodynamics (ICCN’07)
Programme Co-Chair, International Conference on Artificial Neural Networks (ICANN’07)
- 2006: **Special Session Organiser**, “*Knowledge Extraction and Information Fusion*” in the Knowledge-Based, Intelligent Information and Engineering Systems Conference (KES’06)
- 2005: **Special Session Organiser**, “*Data Fusion for Industrial, Medical, and Environmental Applications*” in the International Conference on Artificial Neural Networks (ICANN’05)
- 2004: **Special Session Organiser**, “*Neural Networks for Blind Source Separation*” in the International Joint Conference on Neural Networks (IJCNN’04)