



## Michele Midrio

**Date of birth:** 17/09/1967 | **Nationality:** Italian | **Phone number:**

(+39) 0432558292 (Work) | **Email address:** [michele.midrio@uniud.it](mailto:michele.midrio@uniud.it) |

**Address:** Dipartimento Politecnico di Ingegneria e Architettura, Università degli Studi di Udine, via delle Scienze 208, 33100, Udine, Italy (Work)

### WORK EXPERIENCE

2017 – CURRENT Udine, Italy

**FULL PROFESSOR OF ELECTROMAGNETIC WAVE THEORY** UNIVERSITÀ DEGLI STUDI DI UDINE

Teaching, research group leading on opto-electronic devices for broadband tele- and data-comms, optical properties and application of 2D materials, antennas for RF communications and energy harvesting

2000 – 2017 Udine, Italy

**ASSOCIATE PROFESSOR OF ELECTROMAGNETIC WAVE THEORY** UNIVERSITÀ DEGLI STUDI DI UDINE

Teaching, research on optical communications, opto-electronic devices for broadband tele- and data-comms, antennas for RF communications and energy harvesting

09/2015 – 03/2016 Pisa, Italy

**GUEST PROFESSOR** SCUOLA SUPERIORE SANT'ANNA

Research on opto-electronic devices for large bandwidth tele- and data-comms, 2D materials for optoelectronic devices

09/2009 – 03/2010 Madrid, Spain

**CÁTEDRA DE EXCELENCIA** UNIVERSIDAD CARLOS III DE MADRID

Research on THz and optical antennas for energy harvesting

1999 – 2000 Udine, Italy

**ASSISTANT PROFESSOR OF ELECTROMAGNETIC WAVE THEORY** UNIVERSITÀ DEGLI STUDI DI UDINE

Teaching, research on long-haul optical transmission systems and antennas for RF communications

1996 – 1999 Udine, Italy

**TEMPORARY PROFESSOR OF ELECTROMAGNETIC WAVE THEORY** UNIVERSITÀ DEGLI STUDI DI UDINE

Teaching

1994 – 1996 Roma, Italy

**RESEARCHER** FONDAZIONE UGO BORDONI

Research on long-haul optical transmission systems and fiber lasers

## ● EDUCATION AND TRAINING

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1996 – 1997 Padova, Italy

**POST DOCTORAL FELLOWSHIP** Università degli Studi di Padova

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Research on long-haul optical transmission systems

**Address** Dipartimento di Ingegneria dell'Informazione, via Gradenigo 6/b, Padova, Italy

1991 – 1994 Padova, Italy

**PH. D IN TELECOMMUNICATION ENGINEERING** Università degli Studi di Padova

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Research on long-haul optical transmission systems and fiber lasers

**Address** via Gradenigo 6/b, Padova, Italy |

**Thesis** Laser in fibra attiva per la generazione di impulsi ad altissima frequenza di ripetizione.

1986 – 1991 Padova, Italy

**M.SC. DEGREE IN ELECTRONIC ENGINEERING** Università degli Studi di Padova

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**Address** via Gradenigo 6/b, Padova, Italy | **Final grade** 110 out of 110 cum Laude |

**Thesis** Studio e simulazione di un amplificatore ottico in fibra drogata all'Erbio

1981 – 1987 Padova, Italy

**HIGH SCHOOL DIPLOMA** Liceo Scientifico I. Nievo

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**Address** via Brondolo 18, Padova, Italy | **Final grade** 60 out of 60

## ● LANGUAGE SKILLS

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Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	C2	C2	C2	C2	C2
<b>FRENCH</b>	B1	C2	B1	B1	B1
<b>SPANISH</b>	C1	C1	B1	B1	B1

*Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user*

## ● DIGITAL SKILLS

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Microsoft Office | Microsoft Word | Microsoft Excel | Microsoft Powerpoint | Outlook | Google Drive | Google Docs | Zoom | Skype | LinkedIn | Programming in C, Fortran, Matlab, Javascript, PHP | Text writing in LaTeX

## ● ADDITIONAL INFORMATION

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### RESEARCH ACTIVITIES

1991 – CURRENT

**Themes of research. Research metrics**

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Michele Midrio has been active in scientific research since he graduated in Electronic Engineering at the University of Padova in 1991. He conducted his research while collaborating both with national and international research institutes and Universities (Fondazione Ugo Bordoni, Rome, Italy; Ohio State University, Ohio, USA; Sydney University, Sydney, AUS; University of Brescia, Brescia, Italy; University of St.

Andrews, St. Andrews, Scotland; University of Toronto, Toronto, Canada; University of Siena, Siena, Italy; CNIT National Laboratory of Photonic Networks, Pisa, Italy; MIT Massachusetts Institute of Technology, Cambridge, USA; Advanced Microelectronic Center Aachen, Aachen, Germany; Scuola Superiore Sant'Anna Pisa, Italy; Cambridge Graphene Centre, Cambridge, UK; ICFO-Institut de Ciències Fotoniques, Castelldefels, Spain; Micro Nanoelectronics Research Center, Technion, Haifa 320000, Israel ) as well as with research and development units in telecom and nanotechnologies industries (Pirelli Cavi spa, Milano, Italy; BD/Centre Nationale d'Études en Télécommunication/DTT/TSO, France Telecom, Lannion, France; Pirelli Optical Systems, Milano, Italy; PhotonIC Corporation, Los Angeles, USA; Applied Micro and Optoelectronic (AMO) Aachen, Germany; IMEC, Leuven, Belgium; Ericsson Research, Pisa, Italy; Nokia Italia, Vimercate, Italy; Nokia Deutschland AG, Bell Laboratories, Stuttgart, Germany).

His research topics have been focussed on long-haul optical transmission systems, noise in optical amplifiers and optical channels, fiber lasers for ultrashort pulse generation, second and third order nonlinear effects, opto-electronic integrated devices for high bit-rate tele- and data-communications, and exploitation of 2D-material optical properties in integrated opto-electronic devices. In addition, he has done active research on antennas, both for applications at radio-frequencies, as well as in the THz regime for energy harvesting purposes. While conducting this research, he has contributed to the set-up of a laboratory for electromagnetic measurements at the University of Udine. The laboratory comprises an anechoic chamber and related measurement instrumentation up to 20 GHz.

He has authored or co-authored more than 150 scientific papers that appeared on international journals, and international and domestic conferences. He holds 5 international patents. He has published 3 books.

As of March 2023, the metrics of his research are summarised as follows:

ISI Web of Sciences: citations 2352, h-index: 25

Scopus: citations 2772, h-index: 26

Google scholar: citations 3656, h-index: 31

## **EDUCATIONAL ACTIVITIES**

1996 – CURRENT

### **Teaching**

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He has been holding the following courses by ownership or substitute: Electromagnetic Wave Theory, Microwaves, Waveguided Propagation, Optical Fiber Transmissions, Antenna Design, Laboratory of Antennas

1996 – CURRENT

### **Seminars**

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He has been giving scientific talks on long-haul optical transmission and on the design of integrated opto-electronic devices to ROSC (Research on Optical Soliton Communications) at the Kyoto Convention Center, Kyoto (JAP), COST-268 working group, ST-Microelectronics (Catania, Italy), Infineon Technologies di (Villach, A), Technical University of Denmark in Lyngby (DK), la Royal Melbourne Institute of Technology di Melbourne (AUS), University of Canberra (AUS), Macquarie University in Sydney (AUS) and the Optical Fiber Center in Sydney (AUS).

1994 – CURRENT

### **Tutorship**

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He has been tutor of 5 Ph.D students in Industrial, Telecommunications and Electronic Engineering, as well as for roughly 150 among B.Sc., M.Sc thesis in Electronic Engineering.

## **HONOURS AND AWARDS**

2009

**Cátedra de Excelencia – Universidad Carlos III de Madrid** Winner of a competitive call issued by Universidad Carlos III de Madrid to promote excellence in research by attracting leading international researchers to the University.

1993

**Philip Morris award for scientific research in ICT – Philip Morris**

## PROJECTS

2021 – CURRENT

**European Project GREENERGY** He is scientific responsible for the University of Udine, and leader of the Modelling and Design Work-package in the European Project GreEnergy (project number 101006963, Call H2020-LC-SC3-2018-2019-2020, Topic: LC-SC3-RES-1-2019-2020)

2017 – CURRENT

**European Graphene Flagship Project - Core 2** Key personnel and scientific responsible for the CNIT (Consorzio Interuniversitario per le Telecomunicazioni) Udine Unit within European Project "Graphene Flagship" - Core 2.

2017 – 2018

**POR-FESR Project AALxAAL** Scientific responsible for the University of Udine within POR FESR 2014-2020 Project Abilitazione A Largabanda di AAL (AALxAAL).

2014 – 2017

**European Graphene Flagship Project - Core 1** Key personnel and scientific responsible for the CNIT (Consorzio Interuniversitario per le Telecomunicazioni) Udine Unit within European Project "Graphene Flagship" - Core 1

2012 – 2014

**Regional Project ESTAMOS** He is responsible for activities of the laboratory for measurement of electromagnetic phenomena of the University of Udine within the regional project ESTAMOS, "Elettronica e sistemi nell'auto elettrica per la mobilità sostenibile".

2008 – 2011

**European Project OMEGA** He is responsible for activities of the laboratory for measurement of electromagnetic phenomena of the University of Udine within the European Project EU FP7 ICT-2007-1 Omega (Home Gigabit Networks)

2003 – 2006

**European Project FUNFOX** He is scientific responsible for the University of Udine within the European Project FP6-2003-IST-2 "FUNFOX" (Functional Photonic Crystal Devices for Metropolitan Optical Networks);

2003 – 2006

**National FIRB Project** He is scientific responsible for the University of Udine within the national FIRB project "*Metodi e modelli numerici di dispositivi fotonici per reti ad alta capacità*";

2000 – 2003

**European Project PICCO** He is scientific responsible for the University of Udine within the European Project IST-1999-10361 "PICCO" (Photonics Integrated Circuits using photonic Crystal Optics)

## MANAGEMENT AND LEADERSHIP SKILLS

**Coordinator of B.Sc and M.Sc courses in Electronic Engineering at the University of Udine (2020 - to date)**

**President of Commissione Didattica of B.Sc. and M.Sc. courses in Electronic Engineering at the University of Udine (2018 - 2020)**

**Member of Commissione Paritetica Docenti - Studenti of the Dipartimento Politecnico di Ingegneria e Architettura at the University of Udine (2016 - 2020)**

**Member of Friuli-Venezia Giulia regional committee on electromagnetic pollution** On behalf of the Presidente of Friulia-Venezia Giulia, he is designated as expert-person within the regional committee on management of electromagnetic pollution