

## Professor Dimitra Simeonidou, FEng, FIEEE

Chair of High-Performance Networks, Faculty of Engineering, University of Bristol, UK

### Professional Summary

- Full Professor of High-Performance Networks at the University of Bristol, Co-Director of the Bristol Digital Futures Institute, Director of Smart Internet Lab
- Leading academic in the fields of Optical Networks, Data-Centre and Cloud infrastructures, Optical-Wireless Convergence with a specific focus on 5G and beyond 5G, and pioneer researcher in Smart City Infrastructures
- Fellow of the Royal Academy of Engineering (FEng), a Fellow of the IEEE (FIEEE) and Royal Society Wolfson scholar
- A continuously funded academic currently involved in 19 UK, EU and Industry funded research projects involving over 40 post-doc researchers in wide-ranging national and international collaborations with industry academia and the public sector.
- Member of editorial teams of several leading technical Journals and regularly chairing committees, international conferences and standardisation groups
- Author and co-author of over 600 research papers in peer reviewed journals and international conferences, 4 book chapters, several standardisation documents and 12 patents.
- Co-founder of two start-up companies: i) Ilotron (2000) which received \$10M venture capital funding (3i) to develop telecom switching equipment and was subsequently acquired by the US company Altamar/Ditech Communications (2001); ii) Zeetta Networks (2015), a University of Bristol VC funded spin-out (<http://www.zeetta.com>), delivering network automation solutions for smart cities and enterprise networks.

### Employment History

1. Sept. 2012-Today: University of Bristol, UK
  - Co-Director of the Bristol Institute of Digital Futures (2019-present) (<https://www.bristol.ac.uk/bristol-digital-futures-institute/>)  
A cross-disciplinary Institute, established in 2019, working across Engineering, Computer Science and Social Sciences to drive digital innovation for the future based on sociotechnical methodologies. It is a Public Private Partnership funded by Research England (£29M capital) with contributions from the private sector (£71M)
  - Director of Smart Internet Lab (2015-present) ([www.bristol.ac.uk/smart](http://www.bristol.ac.uk/smart))  
A Faculty of Engineering Research Centre involving over 200 academics and researchers working across network technologies (IoT, radio, optical), cloud infrastructures and vertical sectors (smart cities, transport, digital health, media, manufacturing)
  - West of England 5G Testbeds and Trials Lead (2017-present)

In partnership with the regional local authorities, leading the design, deployment and operations of 5G testbeds in the West of England to support digital innovation in key regional sectors including transport, digital creative, tourism, public safety, high value manufacturing and logistics.

- Chief Scientific Officer (CSO) and Technical Architect of Bristol Is Open-BIO (2014-2018) [www.bristolisopen.com](http://www.bristolisopen.com)), an award-winning Smart City project, which developed the world's first city-wide testbed to support digital innovation in the Bristol city-region

## 2. April 1998- Aug. 2012: University of Essex

- Apr. 1998 – Mar. 2000: Lecturer
- Apr. 2000 - Sept. 2002: Senior Lecturer
- Oct. 2002 - Sept. 2003: Reader
- Oct. 2003 – Aug. 2012: Professor, Chair of Optical Communications, Full Professor

Established the internationally renowned High-Performance Networks group (HPN)

Worked with the EC to establish the Future Internet Research and Experimentation (FIRE) programme

Co-founded the optical switching spin-out company, Ilotron

## 3. July 1994 - March 1998: Alcatel Submarine Networks, Greenwich, UK

- Jul. 1994 – Dec. 1994: System Design Engineer
- Jan. 1995 – Oct. 1995: Senior System Design Engineer
- Nov. 1995 – Oct. 1996: Principal Engineer
- Nov. 1996 – Mar. 1998: Senior Principle Engineer

Led the introduction of Wavelength Division Multiplexing in undersea fibre communications systems establishing the notion of submarine communication networks, the backbone of the global Internet.

## Education:

**PhD**, University of Essex

1990-1994, PhD on Optical Amplification

**MSc**, Aristotle University of Thessaloniki, Greece

1987-1989, Master in Telecommunication

**BSc (HONS)**, Aristotle University of Thessaloniki, Greece

1983-1987, First Class Honours in Physics

## Scholarship

- Published extensively (>600 publications, h-index of 43 in Google Scholar) in international refereed journals and leading peer-reviewed conferences. Publications include more than 50 invited journals, highly prestigious Post-Deadline papers in conferences (e.g. ECOC, OFC), numerous conference keynotes and plenaries (OFC, ECOC, ACP, GLOBECOM, ICC, APOC, ONDM, ICTON, IEEE Topical meetings etc.).
- Received several scholarly recognitions, and more recently: (i) the IEEE Communications Society Charles Kao award (2016) for the best optical communications and networking publication, in recognition of pioneering work in Software Defined Networking for Optical Networks, (ii) The Royal Society Wolfson Research Merit Award 2016 for “novel vision for future cities through digital infrastructure programmability”, (iii) Elected Fellow of the Royal Academy of Engineering

(FREng)-September 2019 (iv) Elevated to Fellow of IEEE (FIEEE)-November 2019, for “contributions to optical networking systems and applications”.

- Served as editor/associate editor of leading international journals in the field (e.g. IEEE/OSA JOCN and JLT, IEEE TCCN, IEEE Comms Mag.) and Chaired major international conferences and workshops (ECOC, OFC, ONDM, Globecom). In 2013 served as the Technical Programme Chair of the European Conference on Optical Communications (ECOC 2013: <http://www.ecoc2013.org>), one of the foremost scientific conference in the field. In 2018, served as co-Chair of the IEEE Photonics Society Topical Meeting Series, July’18. In 2020, serving as General Chair of the Asia Pacific Optical Communications conference (APOC) 2020 and Technical Chair of the Optical Communications Conference (OFC) 2022.

## Research Funding

Since 1998 she has been involved in the development of research initiatives that have attracted funding in excess of £155m of which at least £65m were obtained as Principal Investigator (PI). These include £5.7m for the EPSRC Programme grant TOUCAN, £16m for the DCMS 5G Testbeds and Trials programme, and the recent Research England RPIF £29m for the Institute of Digital Futures.

## Values

- Highly visible, people-focused leader
- Lifelong commitment to deliver excellent research with real-world impact
- Unreserved appreciation of the value of partnership working
- Strong advocate of interdisciplinary research and co-creation
- Committed to diversity and inclusivity in teaching and research

## Current External Appointments

- Member of the EPSRC (Engineering and Physical Sciences Research Council) ICT Strategic Advisory Team (ICT SAT)
- Member of the NERC (Natural Environment Research Council) Steering Board
- Member of the Royal Academy of Engineering Research and Membership Committees
- ERC Advanced panel member
- UK5G Advisory Board member (<https://uk5g.org/connect/the-team/>)
- Co-founder and Chair of the Advisory Board, Zeetta Networks (<http://www.zeetta.com>)
- Technical advisor of the UK government (Department of Digital, Culture, Media and Sports-DCMS) on National Digital Infrastructure Strategy
- Futures Board, Wessex Water (<https://www.wessexwater.co.uk/corporate/the-company>)
- Technical Board of Northern Power Grid
- Chair of the Scientific Steering Board of the Irish NSFI Research Centre CONNECT (<https://connectcentre.ie>)
- International Steering Committee i2CAT/Barcelona
- Technical Chair of the Optical Communications Conference (OFC) 2022, the prime global conference and trade exhibition in the Optical Communications sector

## Publications

See full list of publications at: <https://scholar.google.com/citations?user=DppopzYAAAAJ&hl=en>