

## Research Profile

- **Current Position:** Associate Professor, DTU Compute, Technical University of Denmark (DTU)
- **Research Interests:** Wireless Embedded Systems, On-Device Information Processing, Sensor Networks, Internet of Things
- **ORCID:** 0000-0002-9871-0013
- **Publication Record:** 34 journal articles, 62 conference papers, 1 book chapter
- **Bibliometrics:** 1788 citations, h-index: 24, i10-index: 52, m-index: 1.85 (Google Scholar, February 2022)
- **Line Management/(Co-)Supervision/Mentorship:** 3 Postdocs, 10 PhD Students, 6 Research Assistants
- **Collaboration Network:** Publications co-authored with 16 academic, 11 industrial, and 3 other external institutions

## Teaching Profile

- **Teaching:** Operating Systems (BSc in Software Technology) and Network Security (MSc in Computer Science and Engineering)
- **Supervision:** 42 MSc/MEng Students, 9 BSc/BEng Students, 10 Self-Studies/Internships
- **Industrial Collaborations:** 8 student projects in collaboration with the industry

## Education

- **PhD in Embedded Systems Engineering**, Technical University of Denmark (DTU), Denmark, 2014
- **MSc in Computer Science** (Computer Networks and Telecommunications), University of Crete, Greece, 2010
- **BSc (4 years) in Informatics and Telecommunications**, University of Athens, Greece, 2007

## Academic Appointments

- **Associate Professor**, Technical University of Denmark (DTU), Denmark, 2020 - now
- **Assistant Professor**, Technical University of Denmark (DTU), Denmark, 2018 - 2020
- **Research Fellow**, University of Bristol, UK, 2017 - 2018
- **Senior Research Associate**, University of Bristol, UK, 2015 - 2017
- **Research Associate**, University of Bristol, UK, 2014 - 2015
- **PhD Fellow / Research Assistant**, Technical University of Denmark (DTU), Denmark, 2010 - 2014
- **Research Assistant**, Foundation for Research and Technology - Hellas (FORTH), Greece, 2008 - 2010
- **Research Assistant**, University of Athens, Greece, 2007

## Funding, Grants and Awards

### Funding and Funded Projects

- **DAIS** (Distributed Artificial Intelligent Systems), €354K, H2020-ECSEL, 2021-2024, PI
- **DIREC: Edge-AI** (Edge-based AI Systems for Predictive Maintenance), 1.8M DKK, IFD, 2021-2024, Co-PI
- **DTU-IoT Lab**, 180K DKK, H.C. Ørsteds Fond, 2020-2023, PI
- **AgroRobottiFleet**, 2M DKK, IFD, DK, 2020-2022, Co-PI
- **SPHERE - Next Steps**, £3.8M, EPSRC, UK, 2018-2022, Researcher Co-I
- Altium Designer, 5 Educational Licenses (£225K in kind), Premier EDA Solutions, UK, 2014-2018
- Air quality analytics using fixed and mobile sensors in Bristol, £8.6K, EPSRC IAA Award, UK, 2016, Co-Applicant

### Distinctions and Awards

- Senior Member of IEEE, 2020
- Honorary Research Fellow, University of Bristol, UK, 2018-2021
- Faculty Impact Travel Award, £500, *EPSRC Impact Acceleration Account*, UK, 2017
- SPHERE, World Technology Award in Health and Medicine, The World Technology Network, 2016
- SPHERE, Finalist Award in Health and Wellbeing, NCCPE Engage Competition, UK, 2016
- Distinguished International Scientist, Hellenic Ministry of National Defence, Greece, 2015

## Service

- **Member of the Editorial Board** of Ad Hoc Networks, Elsevier (2019-2021) and IoT, MDPI (2020-2022)
- **Reviewer of Research Proposals** for PRIN, MUR, IT (2021), MRC, UK (2020) and NWO, NL (2019)
- **Chair of PhD Committee and PhD Examiner** of Mohammadreza Barzegaran, DTU Compute (2021)
- **Mentor** of a Tenure Track Assistant Professor at DTU Compute (2022)
- **Member of the Best Paper Award Selection Committee** for EWSN (2021)
- **Conference Chair or Workshop/Session Organiser** for DARE (2022), IEEE ETFA (2021), IEEE ITSC (2019-2021), AdHoc-Now (2018) and IEEE SenseApp (2017-2018)
- **Journal Reviewer** for 15 IEEE Journals (e.g. IEEE Internet of Things Journal, IEEE Transactions on Industrial Informatics), 2 ACM Journals (ACM Transactions on Internet of Things, ACM Transactions on Embedded Computing Systems), 5 Elsevier Journals (e.g. Computer Networks, Pervasive and Mobile Computing), and 9 journals from other publishers
- **TPC Member** for IEEE ISCC (2020-2022), IEEE GLOBECOM (2015-2022), IEEE ICC (2017-2022), IEEE ICCCN (2022), EWSN (2020-2021), IEEE WF-IoT (2015-2021), IEEE MASS (2020), IEEE GIoTS (2017-2020), and 15 more conferences
- **Contributor** to Contiki-NG: the open source Operating System for resource-constrained devices in the Internet of Things

## Managerial Experience

- **DAIS** (H2020-ECSEL, 2021-2024): PI, Leader of the Supply Chain on ‘Enabling Software’ (a task of 29 organisations that aims to deliver 140+ requirements), Country Coordinator of the Danish cluster, Budget Responsible, Supervisor of a Postdoc.
- **DIREC: Edge-AI** (IFD, 2021-2024): Co-PI, Director of Research, Principal Supervisor of a PhD Student.
- **DTU-IoT Lab** (H.C. Ørstedes Fond, 2020-2023): PI, WP Leader, Budget Responsible.
- **AgroRobottiFleet** (IFD, 2020-2022): Co-PI, Director of Research, Supervisor of a Postdoc.
- **SPHERE** (EPSRC, 2014-2018): Senior Researcher, Lead responsible for the design and development of IoT Sensing Platforms of SPHERE, namely the SPHERE Wearable Sensor, the SPHERE Environmental Sensor and the SPHERE Gateway. *De facto* responsible for a prototyping and manufacturing budget.

## Contributions to Research Projects

- **DELITMENT** (Deterministic Long-range IoT Mesh Networks), Nazarbayev University, KZ, 2022-2024, External Collaborator
- **HI2OT** (Nordic University Hub for Industrial IoT), NordForsk, 2018-2023, 86220, Activity Leader
- **FORA** (Fog Computing for Robotics and Automation), H2020-MSCA-ITN, 764785, 2017-2021, PhD Student Supervisor
- **SPHERE** (A Sensor Platform for Healthcare in a Residential Environment), EPSRC, UK, 2013-2019, Senior Researcher
- **IDEA<sup>4</sup>CPS** (Foundations for Cyber-Physical Systems), DNRF, DK, 2011-2013, Research Assistant
- **EU-MESH** (Enhanced, Ubiquitous, and Dependable Access using MESH Networks), ICT-215320, 2008-2010, Research Assistant
- **E2R II** (End-to-End Reconfigurability - Phase 2), IST-2005-027714, 2006-2007, Research Assistant

## Impact, Collaborations and Leadership

### Evidence of Impact

- My research products, *i.e.* the IoT Sensing Platforms of SPHERE, are being deployed in people’s houses at large scale (over 1,000 units for up to 12 months), as part of SPHERE’s 100 home study<sup>1</sup>.
- My research products, *i.e.* the IoT Sensing Platforms of SPHERE, have been adopted by other research projects, enabling new research and clinical trials in practice. These include:
  - EurValve: Personalised Decision Support for Heart Valve Disease (H2020)
  - HEmiSPHERE: The Heap and Knee Replacement Study of SPHERE (EPSRC, UK)
  - CUBOId: Continuous Behavioural Biomarkers of Cognitive Impairment (MRC, UK)
  - STRETCH: Socio-Technical Resilience for Enhancing Targeted Community Healthcare (EPSRC, UK)

### External Collaborations<sup>2</sup>

- **Academic:** Aalborg University (DK); University of Oxford (UK); University of Manchester (UK); IMT Atlantique (FR); University of Montevallo (USA); University of Cambridge (UK); University of Reading (UK); University of Southampton (UK); KTH Royal Institute of Technology (SE); Uppsala University (SE); University of Strasbourg (FR); University of Memphis (USA); Alexander Technological Educational Institute of Thessaloniki (GR); Edge Hill University (UK); University of Padova (IT); University College Cork (IE)
- **Industrial:** Cisco (FR); Amazon Research (UK); Toshiba Research Europe (UK); Volvo Cars (SE); Brunata (DK); MakeThisWork (DK); Delta (DK); Zolertia (ES); Yubico (SE); Itron (USA); UniquiD (USA)
- **Other:** Institute of Electronics and Computer Science (LV); RISE SICS (SE); INRIA (FR)

### Invited Talks

- Network Security: A Crash Course, *Master of Cyber Security, DTU Compute Continuing Education*, Denmark, September 2021
- Reliable Industrial Wireless IoT Networks: In the Lab and out in the Wild, *Keynote, IEEE DIPI*, Ireland, August 2020
- Reliable Wireless for Dependable IoT Networks: In the Lab and out in the Wild, *Danish Industry (DI)*, Denmark, March 2020
- Network Security for Low-End IoT Devices, *Nordic IoT Summer School: Edge and Fog Computing*, Denmark, June 2019
- Reliability in Resource-Constrained Wireless Networks with IEEE 802.15.4 TSCH, *Nordic Test Forum (NTF)*, Denmark, November 2018
- Reliable, Secure and Energy-Efficient Wireless Sensing Systems and Networks for Residential Monitoring, *Royal Institute of Technology (KTH)*, Sweden, February 2017
- Sustainability and Performance: The MAC Layer of Energy Harvesting - Wireless Sensor Networks, *Linköping University*, Sweden, October 2013
- ODMAC in practice: On-demand MAC protocol for Energy Harvesting WSN, *Sense This Workshop*, Denmark, October 2012

### Panel Discussions

- Panel: How to secure the supply chains for PCB manufacturing?, *Nordic Test Forum (NTF)*, Denmark, November 2018

### High-Profile Demonstrations of Research

- Dr Robin Buckle, Chief Science Officer, Medical Research Council (MRC), UK, June 2016
- Dame Sally Davies, Chief Medical Officer of England, UK, November 2014
- Prof Philip Nelson, Chief Executive Officer, Engineering and Physical Sciences Research Council (EPSRC), UK, October 2014
- Tony Tan, President of Singapore, UK, October 2014
- Greg Clark, Minister of State for Universities, Science and Cities, UK, October 2014

### Media Mentions

- H. Fry, The Joy of Data, *BBC Four Documentaries*, July, 2016
- M. Rozenfeld, The SPHERE House Can Monitor Its Residents’ Health, *The Institute*, December 2015
- N. Hellen, Bristol taps away to be first smart city, *The Sunday Times*, December 2014
- J. Doward, Networked and super fast: welcome to Bristol, the UK’s smartest city, *The Guardian*, November 2014

<sup>1</sup><https://www.bristol.ac.uk/engineering/research/digital-health/research/sphere/the-100-homes-study/>

<sup>2</sup>At least one joint publication.