Head of Research Section, EngTech, BTECH, Aarhus University, January 2022 – current

- Part of the leadership group at the Department of Business Development and Technology (see leadership statement in the appendix).
- Leading 40-50 engineers at various levels (research assistants, PhD students, assistant, and associate professors, as well as professors) on topics related to Project Management, Operations Management and Supply Chain, Digital Smart Manufacturing, Artificial Intelligence and Machine Learning as well as Extended Reality and Robotics.
- Overseeing the development and helping the development of labs at BTECH including X2R, Concept Development, Digi, Proto*, Production Lab.
- Conducting regular section meetings, organising seminars and facilitation of the development of research groups.

Associate Professor, BTECH, School of Business and Social Sciences, Aarhus University, July 2017 – current

- Researching in the cross-section of business development and digital technologies in an applied and multi/interdisciplinary context.
- Co-leader of the FOSS research group, a research group at BTECH focussing on Free Open-Source Software in the context of organisation and organising as well as the supply chain.
- Coordinator/Principle Investigator for the H2020 NGI move, NGI Pointer, and HEU NGI Search projects, a strategic research and innovation action called: Next Generation Internet
- Coordinator/Principle Investigator for the H2020 MOTOR5G Marie Skłodowska-Curie Excellence in Science
- Principle Investigator for H2020 EU-IoT project on IoT and Business Models, as well as the Industrial Foundation project CyPro on cybersecurity for IoT in the Manufacturing Industry.
- Joint Principle Investigator for the AUFF Nova grant: Humanising Software Development: How organising works in free open-source software projects.
- Research based teaching and supervision at master and PhD levels in digital technologies including wireless technologies, digital design, data analytics, internet of things, next generation internet in the context of business development and innovation.
- Development of the digital business development e-learning platform https://dbd.au.dk/

Assistant Professor, BTECH, School of Business and Social Sciences, Aarhus University, January 2017 – June 2017

- Research based teaching and supervision at master level in digital technologies in the context of business development and innovation.

Head of Research and Innovation, Smart City Lab, Alexandra Instituttet A/S, January 2012 – December 2016 (from Jan 2016, Team Lead for the Data and Insights section)

- The technology pillars of the Smart City Lab focus on Internet of Things, Cloud Computing and Data Analytics, with overall purpose to collaborate in a triple helix between research, industry, and users.
- Leading a team of multidisciplinary researchers and innovators in the fields of engineering, computer science, anthropology, business, industrial design, urban planning and ethnography.
- Developing a research and innovation roadmap and securing funding. Working with national industry and universities to generate new innovation opportunities and growth.
- Technical contribution to several national and EU projects, including the coordination of one FP7 project.
- Development of the first IoT platform for Grundfos (GateSense), initiation of the Smart Aarhus Initiative, development of the data catalogue for virk.dk based on CKAN, launch of

the first European Smart City – SmartSantander, co-development of the Hitachi Copenhagen data exchange and helping the development of the first open data platform in Denmark (odaa.dk).

- Launch of the IoT Forum (https://iotforum.org/) and IoT Week (https://iotweek.org/).

Research and Innovation Specialist, Alexandra Instituttet A/S, September 2009 – December 2011

- Project work and digital technology development

Research Fellow, CCSR, University of Surrey, October 2002 – July 2009

- Technical Manager for the FP6 e-SENSE and the FP7 SENSEI projects
- Development of a new research group on Wireless Sensor Networks and Telecommunications (later called: Internet of Things)

<u>Education</u>

PhD, Electrical and Electronic Engineering, University of Surrey, CCSR, October 2002 – July 2009

- Part time PhD on the topic of the Internet of Things, developing a solution of integrating wireless sensor networks as reusable context resources in IP Multimedia Subsystem service platforms.

MSc, Telecommunications and Signal Processing, University of Bristol, September 2001 – August 2002

- Taught master's degree covering a wide variety of telecommunications and signal processing topics. The master's thesis addressed 3G channel propagation characteristics and receiver configurations and test scenarios. Completed with commendation.

MSci, Physics with Astrophysics, University of Bristol, September 1997 – June 2001

- Physics with astrophysics degree with focus on high-energy participle physics. The Master's thesis addressed a satellite payload to measure high-energy particles from beyond the solar system. Completed with a II.1.

Gymnasium, GTO, Osterburken Germany, graduated June 1995

Employment prior to my university education included mandatory military service: "Jäger" in the Eurocorps based in Strasbourg (https://www.eurocorps.org/). Teaching assistant and boarding staff at Northbourne Park a bilingual French/English secondary private school near Dover, UK (https://www.northbournepark.com/). Volunteering for the Toynbee Hall charity (https://www.toynbeehall.org.uk/). And working weekends on the Venice Simplon-Orient Express as a steward.

Additional development courses

- Occupational Health and Safety (2023)
- Leadership development programme for research managers (2022-2023)
- Course on Educational IT for associate professors and professors (2021)
- Course on supervision of Master/PhD students (2019-2020)
- AU lederskab – 3 dages introkursus for nye ledere på AU (2019)
- Teacher Training Programme (ad-junktpædagogikum) (2017-2018)

Research Grants (Principle Investigator)

Funding Source	Project Name	Duration (Start – End)	Grant Size (Total/Share)	Description
AUFF Nova	Humanising SW development	Jan 2024 - ongoing	600kDKK	Investigation of organising and organisation of FOSS projects.
Industriens Fond	CyPro	Sept 2022 - ongoing	12MDKK/ 1.7MDKK	IoT Cybersecurity for Manufacturing and Service Industry SMEs in DK.
HEU	NGI Search (coordinator)	Sep 2022 - ongoing	8MEUR/ 420kEUR	Next Generation Internet Search. Discovery and Indexing technologies.
H2020	EU-IoT	Oct 2020 – Mar 2023	2MEUR/ 322kEUR	Internet of Things, Edge-Cloud Continuum community development.
H2020	NGI Pointer (coordinator)	Jan 2020 – Dec 2022	7MEUR/ 375kEUR	Next Generation Internet Architecture developments.
H2020	MOTOR5G (coordinator)	Sep 2019 – Jan 2025	4MEUR/ 400kEUR	Embedding artificial intelligence into 5G communication systems (ITN)
AUFF	IoT search (coordinator)	Feb 2018 – Dec 2020	2MDKK	PostDoc working on IoT design & development of applications/services.
H2020	IoT Crawler	Feb 2018 – Dec 2020	5MEUR/ 386kEUR	Internet of Things Search and Discovery concept development.
H2020	NGI move (coordinator)	Oct 2017 – Dec 2018	700kEUR/ 200kEUR	NGI pathfinding missions to identify research and innovation gaps.
H2020	SynchroniCity	Jan 2017 – Dec 2019	15MEUR/ 500kEUR	Large Scale Pilot project on Smart Cities and Internet of Things.
H2020	OrganiCity	Jan 2015 – Dec 2017	7.5MEUR/ 600kEUR	Service Co-Creation in Smart Cities and development of applications.
Commercial	City Data Exchange	Apr 2015 – Sep 2016	15MDKK/ 500kDKK	Development of a city data market. Sub-vendor to Hitachi.
Commercial	Gatesense	Jan 2013 – Dec 2014	unknown/ 1MDKK	Exploration of IoT and new business models for Grundfos.
FP7	CityPulse	Sep 2013 – Oct 2016	2.5MEUR/ 400kEUR	Development of novel smart city applications based on data.
FP7	IoT Lab	Oct 2013 – Oct 2016	2.5MEUR/ 250kEUR	Development of crowd-sensing and crowd-sourcing test bed.
FP7	Urb-Grade	Nov 2012 – Jan 2016	4MEUR/ 400kEUR	ICT for energy-positive neighbourhoods.
FP7	SmartSantander	Sep 2010 – Dec 2013	7MEUR/ 400kEUR	Development of novel smart city IoT test bed on large scale.
FP7	IoT-i	Sep 2010 – Dec 2013	1MEUR/ 50kEUR	IoT research & innovation network, founded IoT Forum & IoT Week.
FP7	IoT.est	Sep 2010 – Aug 2013	3MEUR/ 300kEUR	IoT protocols, applications and platform development.
FP7	FI-PPP OUTSMART	Apr 2011 – May 2013	5MEUR/ 600kEUR	Development of utility based smart city services in the FI-PPP.
FP7	SENSEI	Jan 2008 – Dec 2010	15MEUR/ 1.2MEUR	IoT large scale project developing a pan European test platform.
FP6	e-SENSE	Jan 2006 – Dec 2007	7MEUR/ 700kEUR	Connecting IoT with telecommunication systems.
FP6	MAGNET	Jan 2004 – Dec 2005	10MEUR/ 500kEUR	Next generation mobile communications and services.

Other Roles, Activities and Honours

- OW2 (https://www.ow2.org/) Board Member (2023-2024) - OW2 is an independent, global, open-source software community.

- Open Web Search (https://openwebsearch.eu/) Advisory Board Member (2023- current) – Open Web Search is a flagship Horizon Europe Project developing an open web index.

- AIOTI (https://aioti.eu/) Member – member-based association around digital technologies

- IoT Forum (https://iotforum.org/) Member - IoT Forum is a member based organization which aims to: (1) Promote international dialogue and cooperation on the Internet of Things (2) Organize events and conferences, such as the IoT Week (3) Develop activities and synergies with and among its members.

- IoT Week co-organiser since 2011 (https://iotweek.org/) – a European Flagship event for the Internet of Things ecosystem, covering Industry, Academia and Policy.

- Steering Committee and Programme Chair for GIECS (https://giecs.eu/), formerly known as Global IoT Summit (https://globaliotsummit.org/) – a conference linked to Springer CCIS publishing articles on a broad range of engineering and computer science topics related to IoT, Analytics and Edge Computing.

- Digital Business Guest Editor: Unleashing the Power of IoT: Transforming Business Models, Fueling Innovation, and Navigating Digital Ecosystems (https://www.sciencedirect.com/journal/digital-business/about/call-for-papers#unleashing-the-power-of-iot-transforming-business-models-fueling-innovation-and-navigating-digital-ecosystems)

- Reviewer for conferences and journals including IEEE-GIoTS, WF-IoT, IEEE-WCNC, IEEE-IoTaIS, IEEE-ISSNIP, IEEE access, Internet conference and EuroCNC.

- Research Council of Norway and Poland Reviewer, European Commission Reviewer and Ethical Evaluator and Ideal lab facilitator for the Norwegian, Polish, Icelandic and Lichtenstein Research Councils

- Runner-up of the AIoT Prize 2023: Unwind - Blockchain for Economy of Scale in Wind Industry: A Demo Case

- Visiting Researcher at CODE Berlin spring 2023

- Årets IoT Pris judge since 2022: An annual IoT prize offered to Danish IoT Innovators by the Noridc IoT Centre and Force Technology

- Next Generation Internet Awards 2019

- Digital Catapult review committee member in 2017

- From 2014 until 2016 I was a Sherpa for the CONNECT Advisory Forum (CAF) on Internet of Things providing written inputs on behalf of the Director of the Alexandra Institute.

- From 2014 to 2016 I was part of the EU/China Expert Group on the Internet of Things and co-author of the EU/China position paper on the IoT.

- IoT Comic Book: an easy to read and inspirational book for C-level to understand the capabilities and benefits of IoT for business and society – over 30k downloads and translated into 5 languages. https://aioti.eu/resources/research-resources/

- Up to 2009 I have been the caretaker of the Real World Internet Cluster in the Future Internet Assembly and organized the Smart City sessions at the Future Internet Assembly.

- Winner of the Lord Lloyd of Kilgerran Prize 2004

Panels, Keynotes and Presentations (selected)

- "Trends and Promises of the Internet of Things", expert speaker at EPoSS SSI special session on Internet of Things, 10th March 2009 – one of the first high-level events to align different communities on IoT.

- "Smart City in a Smart Region", keynote presentation at the regional IT Council in Viborg, 30th Nov. 2010 - high level policy event for local industry actors in the IT sector.

- "Essential Smart City Services of Tomorrow", invited guest speaker at Knowledge 4 Innovation (K4I) 3rd European Innovation Summit in Brussels, 11th Oct. 2011 – an event for major EU policymakers.

- "Data {map, psi, big}", keynote speaker at Map Days, Herning, 31st Oct. 2012 – the annual event a large national network of the geo-spatial society. The event hosted nearly 1000 participants.

- "Generating Business Models for the IoT", guest speaker at Living Bits and Things 2012 in Bled, 28th Nov. 2012

- "Smart City and ICT", invited expert speaker at Invest in Denmark in Copenhagen, 3rd Apr. 2013 – Invest in Denmark is the branch of the foreign ministry to attract investment to Denmark.

- "Smart City Tutorial", invited guest lecturer at A*STAR in Singapore, 21st Apr. 2014 – the tutorial was a joint event at IoT Asia and the audience included high level government employees, researchers and members from industry.

- "Smart Cities and IoT" invited expert speaker at TOTAL board of directors' conference in Paris, 14th Mar. 2014 – the event is an annual event organized by the TOTAL University for the board of directors to get an overview of current technology trends.

- "IoT in Europe", keynote speaker at iThings 2014 in Taipei, 2nd Sept. 2014 – this presentation was made as part of the EU/Taiwan expert group delegation.

- "The Internet of Things – educate yourself", invited speaker at Open Days in Brussels, 9th Oct. 2014 – high level presentation to a broad audience.

- "Stimulating Innovation and Ecosystems in Smart Cities", expert speaker at IoT Shanghai, 28th Oct. 2014 –this presentation was made as part of the EU/China expert group delegation.

- "Connected cities – Today and in the Future", invited speaker at Bosch Connected World in Berlin, 18th Feb. 2015 – Bosch Connected World is the annual event for Bosch employees and selected stakeholders to exchange knowhow and network.

- "Technology Trends: IoT, Big Data and Smart Cities", expert at Danske Bank in Aarhus, 25th Feb. 2015 – the presentation is a typical expert and inspirational talk for industry.

- Internet of Things panel chair and moderator at NET FUTURES 2015 Brussels, 25th Mar. 2015 – NET FUTURES is the CONNECT flagship event since the FIA.

- "The Internet of Things", keynote at KMO2015 Maribor, 25th Aug. 2015, the conference has been running for 10 years now and is focused on Knowledge Management and Organisations.

- "The Internet of Things", keynote at Computerworld Event Copenhagen, 26th Oct. 2015 – the Computerworld event is an annual event for CEO/CIO level participation.

- "Internet of Things and Smart Products Growth Strategy", keynote at the annual GTS institute event in Copenhagen, 17th Nov 2015 – the event is a very high-level policy event for the ministries in Denmark to obtain knew insights into technology development.

- Invited speaker to the high-level meeting on Higher Education and Research by the Ministry of Education and Research (Uddannelses- og Forskningsministeriet) – "Internet of Thing", 20th April 2017 in Kolding.

- Panel chair at the NGI Forum 2023: "Securing the open-Source Frontier: Navigating Supply Chain Risks", 16th November 2023 in Brussels.

- Executive Insights 2024, presentation: "Leveraging digital technologies to create new business opportunities", 23rd January 2023 in Aarhus.