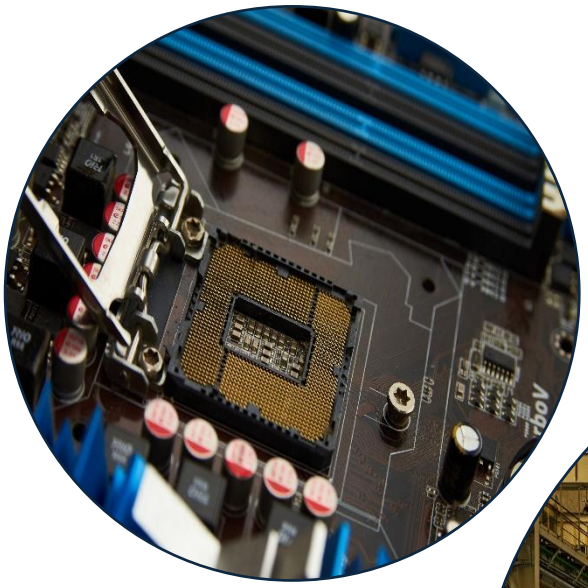
AALBORG UNIVERSITET

HORIZON EUROPE 2025/2026 CALLS

CLUSTER 4 – DIGITAL, INDUSTRY AND SPACE

AAU Fundraising & Project Management Office



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INTRODUCTION

AAU HORIZON EUROPE COMPENDIUM

Interested in finding academic partners for the upcoming Horizon Europe calls? At AAU, we have collected, mapped, and showcased AAU researchers' interest in collaborating on specific topics within the six clusters of Pillar 2 (including EU Missions & Cross-cutting activities). Each compendium displays our showcased researcher's relevant expertise within each identified topic, which makes it easy to locate AAU researchers who are interested in collaborating and providing their expertise in your next Horizon Europe proposal.

ABOUT AAU

AAU has campuses in Aalborg, Copenhagen, and Esbjerg, as well as an EU office in Brussels. We have 3.700 staff, 18.000 students and an annual turnover of DKK 3 billion.

AAU is a comprehensive university covering four faculties and 18 departments, such as Sustainability and Planning, Energy, Health Science and Technology, Computer Science, Built Environment, Politics and Society, Culture and Learning.

With problem-based learning at the heart of educational programs, AAU researchers and students are well-equipped to take on current and future societal, environmental and economic challenges.

OUR PROFILE AND DNA – WHY SHOULD YOU PARTNER WITH US?

Collaboration is heavily embedded in the DNA of AAU. We have a strong and natural collaboration with industry and the surrounding society – thus our current strategy is labeled "Knowledge for the World 2.0".

We are a mission-oriented university, with three identified AAU Missions:

1. A Sustainable Danish Energy System
2. Improved Wellbeing Among Children and Youth in Denmark
3. Improving Health Through Coherence and Individualisation

As the second best ranked engineering university in Europe, and being no. 16 globally (ranking from the U.S. News & World Report), as well as being in top 5 of universities pursuing the UN sustainable development goals (THE University Impact Rating), we are a very capable partner and collaborator.

AAU has contributed as coordinator or partner in close to 200 projects in the EU Horizon 2020 Framework Programme. For Horizon Europe we have – so far – contributed to more than 150 projects. We are setting even more ambitious targets for Horizon Europe in 2025 and going forward.

DESTINATION 1

CLIMATE NEUTRAL, CIRCULAR AND DIGITALISED PRODUCTION

DESTINATION 1: CALLS

CALL – CLIMATE NEUTRAL, CIRCULAR AND DIGITALISED PRODUCTION

DESTINATION 2

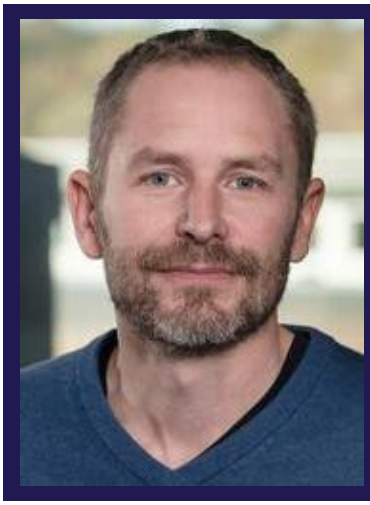
INCREASED AUTONOMY IN KEY STRATEGIC VALUE CHAINS FOR RESILIENT INDUSTRY

DESTINATION 2: CALLS

CALL – INCREASED AUTONOMY IN KEY STRATEGIC VALUE CHAINS FOR RESILIENT INDUSTRY

HORIZON-CL4-INDUSTRY-2025-01-MATERIALS-61: Technologies for critical raw materials and strategic raw materials from end-of-life products (IA)

HORIZON-CL4-INDUSTRY-2025-01-MATERIALS-61: TECHNOLOGIES FOR CRITICAL RAW MATERIALS AND STRATEGIC RAW MATERIALS FROM END-OF-LIFE PRODUCTS (IA)



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RELEVANT LINKS OUTSIDE ACADEMIA

Many Industrial partners in different sectors both in Denmark and in Europe

AREA OF EXPERTISE

Development, characterization, and testing of materials (polymers, composites, metals, and ceramics).
Chemical recycling of mixed plastic waste, textiles, thermoset plastic and composite materials by pyrolysis and solvolysis.
Chemical recycling of batteries and E-waste.
Separation and purification technologies
Quantitative chemical analysis
High temperature and high pressure technologies
Supercritical CO2 extraction

DESTINATION 3

WORLD LEADING DATA AND COMPUTING TECHNOLOGIES

DESTINATION 3: CALLS

CALL – WORLD LEADING DATA AND COMPUTING TECHNOLOGIES

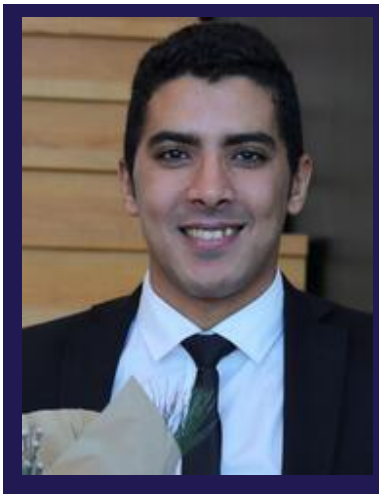
HORIZON-CL4-2025-03-DATA-08: Large-scale pilots for supply end-to-end infrastructures integrating device, network computing and communication capabilities for Telco Edge Cloud deployments, as a basis for Connected Collaborative Computing Networks (3C networks) (RIA)

HORIZON-CL4-2025-03-DATA-10: Roadmap for next generation computing technologies from IoT device level to edge to cloud to HPC (CSA)

HORIZON-CL4-2025-03-DATA-13: Fostering Innovative and Compliant Data Ecosystems (AI, Data and Robotics Partnership) (IA)

HORIZON-CL4-2025-04-DATA-02: Empowering AI/generative AI along the Cognitive Computing continuum (AI/Data/Robotics Partnership) (RIA)

HORIZON-CL4-2025-03-DATA-08: LARGE-SCALE PILOTS FOR SUPPLY END-TO-END INFRASTRUCTURES INTEGRATING DEVICE, NETWORK COMPUTING AND COMMUNICATION CAPABILITIES FOR TELCO EDGE CLOUD DEPLOYMENTS, AS A BASIS FOR CONNECTED COLLABORATIVE COMPUTING NETWORKS (3C NETWORKS) (RIA)



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HIGHLIGHTED AAU RESEARCH GROUPS
Member of ECN research group

RELEVANT LINKS OUTSIDE ACADEMIA
Nokia, BOSCH, Toshiba, Ericsson

AREA OF EXPERTISE
Wireless communication and networking
Industrial IoT
Application of AI/ML in wireless communication

Networks
Mobile communication
Industrial IoT

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HIGHLIGHTED AAU RESEARCH GROUPS

Edge Computing and Networking
Cyber Security Group
AI for the People

MEMBERSHIP OF EU PARTNERSHIPS

Vice-chair – IEEE TCGCC: Technical Committee on Green Communications and Computing, Special Interest Group (SIG) on Green Digital Twin Network

RELEVANT LINKS OUTSIDE ACADEMIA

Industry collaboration: Nvidia Denmark, Terma A/S (Quantum Research Department, Denmark)

AREA OF EXPERTISE

IoT-Edge-Cloud continuum computing
Edge-AI systems
Computation Acceleration
Task offloading and orchestration
Post-quantum cryptography for critical infrastructure
Distributed computing
Lightweight authentication
Computation offloading, edge/cloud computing, task orchestration

RELEVANT PROJECTS

(2023 – 2026) EU Horizon KDT JU "CLEVER: Collaborative edge-cLoud continuum and Embedded AI for a Visionary industry of thE futuRe"
(2022 – 2027) EU Horizon Europe "I3LUNG: Integrative science, Intelligent data platform for Individualized LUNG cancer care with Immunotherapy"
(2015 – 2017) EU H2020 "RAPID: Heterogeneous Secure Multi-Level Remote Acceleration Service for Low-Power Integrated Systems and Devices"
(2012 – 2015) EU STREP FP7 "TROPIC: Distributed computing, storage and radio resource allocation over cooperative femtocells"

HORIZON-CL4-2025-03-DATA-10: ROADMAP FOR NEXT GENERATION COMPUTING TECHNOLOGIES FROM IOT DEVICE LEVEL TO EDGE TO CLOUD TO HPC (CSA)

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HIGHLIGHTED AAU RESEARCH GROUPS
Member of Data Engineering, Science and Systems (DESS) group

MEMBERSHIP OF EU PARTNERSHIPS
Associate Editor
IEEE Network
IEEE Transactions on Intelligent Vehicles

AREA OF EXPERTISE
Data management and analytics
Intelligent transportation
Artificial intelligence and machine learning
Digital twin
Internet of Things
Edge and distributed computing
Autonomous vehicles

Expertise specific to this call: edge computing, Internet of Things, federated learning, distributed computing, digital twin

RELEVANT PROJECTS
Project co-investigator, HORIZON, MobiSpaces: New Data Spaces for Green Mobility

Project co-investigator, DIREC, Multimodal Data Processing of Earth Observation Data

HORIZON-CL4-2025-03-DATA-13: FOSTERING INNOVATIVE AND COMPLIANT DATA ECOSYSTEMS (AI, DATA AND ROBOTICS PARTNERSHIP) (IA)

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HIGHLIGHTED AAU RESEARCH GROUPS
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MEMBERSHIP OF EU PARTNERSHIPS
Associate Editor
IEEE Network
IEEE Transactions on Intelligent Vehicles

AREA OF EXPERTISE
Data management and analytics
Intelligent transportation
Artificial intelligence and machine learning
Digital twin
Internet of Things
Edge and distributed computing
Autonomous vehicles

Expertise specific to this call: AI-driven data governance, federated and decentralized data ecosystems, digital twin

RELEVANT PROJECTS
Project co-investigator, HORIZON, MobiSpaces: New Data Spaces for Green Mobility

Project co-investigator, DIREC, Multimodal Data Processing of Earth Observation Data

HORIZON-CL4-2025-04-DATA-02: EMPOWERING AI/GENERATIVE AI ALONG THE COGNITIVE COMPUTING CONTINUUM (AI/DATA/ROBOTICS PARTNERSHIP) (RIA)

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HIGHLIGHTED AAU RESEARCH GROUPS

Member of Edge Computing and Networking (ECN) research group

RELEVANT LINKS OUTSIDE ACADEMIA

https://www.nordforsk.org

AREA OF EXPERTISE

Wireless Networks; non-terrestrial networks
Wireless Communications
Machine Learning
Edge computing
Reinforcement learning

RELEVANT PROJECTS

Celtic Next 6G-SKY
Self Learning Drone Detection System

DESTINATION 4

CLEAN DIGITAL AND EMERGING TECHNOLOGIES FOR COMPETITIVENESS AND FIT FOR THE GREEN DEAL

DESTINATION 4: CALLS

CALL – DIGITAL AND EMERGING TECHNOLOGIES FOR COMPETITIVENESS AND FIT FOR THE GREEN DEAL

HORIZON-CL4-INDUSTRY-2025-01-DIGITAL-61: AI Foundation models in science (RIA)

HORIZON-CL4-INDUSTRY-2025-01-DIGITAL-62: Facilitated cooperation for AI in Science (CSA)

HORIZON-CL4-2025-03-DIGITAL-EMERGING-03: Supporting Digital Partnerships in Quantum technologies (RIA)

HORIZON-CL4-2025-03-DIGITAL-EMERGING-07: Robust and trustworthy GenerativeAI for Robotics and industrial automation (AI/Data/Robotics & Made in Europe Partnerships) (RIA)

HORIZON-CL4-2025-04-DIGITAL-EMERGING-05: Soft Robotics for Advanced physical capabilities (AI/Data/Robotics Partnership) (IA)

HORIZON-CL4-2025-04-DIGITAL-EMERGING-07: Enhanced Learning Strategies for General Purpose AI: Advancing GenAI4EU (AI/Data/Robotics Partnership) (RIA)

HORIZON-CL4-INDUSTRY-2025-01-DIGITAL-61: AI FOUNDATION MODELS IN SCIENCE (RIA)

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HIGHLIGHTED AAU RESEARCH GROUPS

Reliability of Power Electronic Converters

AREA OF EXPERTISE

Artificial intelligence and system informatics: physics-informed machine learning, information fusion, data analytics, digital twin, condition & health monitoring, prognostics and health management.

Reliability for power electronics: Physics-of-failure, degradation modeling, lifetime and reliability estimation, accelerated testing experiment, health-aware control.

RELEVANT PROJECTS

European Projects:
TEAMING: E-powertrain Predictive Maintenance Using Physics Informed Learning, European Horizon MSCA
ALL2GAN: Affordable smart GaN IC solutions as enabler of greener applications, European Chips Joint-undertaking

National Projects:
Phy-caliper: Discovering Unknown Physics for Calibrating Predictive Maintenance in Power Electronics, Villum Experiment.
Light-AI: Light-AI for Cognitive Power Electronics, Villum Synergy.
AI-Power: Physics-informed AI for Next Generation Power Electronics, IFD grand solution.

Sean Bin Yang

Department of Computer Science

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HIGHLIGHTED AAU RESEARCH GROUPS

Data Engineering, Science and System
Artificial Intelligence and Machine Learning

MEMBERSHIP OF EU PARTNERSHIPS

Chapter Treasurer of Denmark Section Chapter, IEEE Computer Society

RELEVANT LINKS OUTSIDE ACADEMIA

National Natural Science Foundation of China (RMB: 300,000)
Chongqing Natural Science Foundation Innovation and Development Joint Project (Grant No. CSTB2023NS CQ-LZX0170, Chongqing China)
Scientific and Technological Research Program of Chongqing Municipal Education Commission (Grant No. KJQN202400637, Chongqing, China)

AREA OF EXPERTISE

My research mainly focusses on efficient, effective, and explainable representation learning (Foundation model) based on some advanced technologies, such as self-supervised learning, meta-learning, increment learning, especially for the smart transportation systems and spatial-temporal data mining.

RELEVANT PROJECTS

National Natural Science Foundation of China: Developing a Generalizable and Interpretable Foundation Model for the Spatiotemporal Trajectories of Moving Objects (RMB 300,000)
Chongqing Natural Science Foundation Innovation and Development Joint Project: Study on intelligent control of cabin air conditioning (RMB 1,000,000)
Scientific and Technological Research Program of Chongqing Municipal Education Commission: Research on Key Technologies for General Multimodal Spatiotemporal Data Analysis of Moving Objects for Open Scenes (RMB 40,000)
Doctoral Research Start-up Funding Project: Study on cross-domain spatiotemporal trajectory data representation learning (RMB 85,000)

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HIGHLIGHTED AAU RESEARCH GROUPS

Machine Learning Group, Department of Computer Science, Aalborg University

RELEVANT LINKS OUTSIDE ACADEMIA

Collaborations with industry on probabilistic modeling and AI applications
Member of international research networks in probabilistic machine learning
Organizer of the Nordic Probabilistic AI School (ProbAI)

AREA OF EXPERTISE

Probabilistic Machine Learning
Trustworthy and Explainable AI
Deep Learning and Neural Networks
Probabilistic Programming
Modeling Uncertainty
Large-Scale Machine Learning

RELEVANT PROJECTS

Relevant Expertise:
Probabilistic Machine Learning for large-scale data modeling
Bayesian methods for deep learning models

Relevant Projects:
Explainable Machine Learning: A Probabilistic Approach (Co-PI, Spanish National Grant, 2020-2022)
DarkScience Project: Illuminating microbial dark matter through data science (Villum Foundation)

HORIZON-CL4-INDUSTRY-2025-01-DIGITAL-62: FACILITATED COOPERATION FOR AI IN SCIENCE (CSA)

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HIGHLIGHTED AAU RESEARCH GROUPS

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RELEVANT LINKS OUTSIDE ACADEMIA

Collaborations with industry on probabilistic modeling and AI applications
Member of international research networks in probabilistic machine learning
Organizer of the Nordic Probabilistic AI School (ProbAI)

AREA OF EXPERTISE

Probabilistic Machine Learning
Trustworthy and Explainable AI
Deep Learning and Neural Networks
Probabilistic Programming
Modeling Uncertainty
Large-Scale Machine Learning

RELEVANT PROJECTS

Relevant Expertise:
Large-scale machine learning for scientific discovery
Generative modeling and uncertainty quantification in AI models
Collaboration with interdisciplinary teams on AI-driven scientific research

Relevant Projects:
Explainable Machine Learning: A Probabilistic Approach (Co-PI, Spanish National Grant, 2020-2022)
DarkScience Project: Illuminating microbial dark matter through data science (Villum Foundation)

HORIZON-CL4-2025-03-DIGITAL-EMERGING-03: SUPPORTING DIGITAL PARTNERSHIPS IN QUANTUM TECHNOLOGIES (RIA)

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HIGHLIGHTED AAU RESEARCH GROUPS

Edge Computing and Networking (ECN) Group

RELEVANT LINKS OUTSIDE ACADEMIA

Member of IEEE

AREA OF EXPERTISE

Wireless Networking
Edge Intelligence
Machine Learning
Optimization Theory
Game Theory

RELEVANT PROJECTS

I have finished all my education, including my master's and PhD degrees, in the Republic of Korea. Furthermore, I also worked as a postdoc for 1 year in Korea. As a result, I have a strong network in Korea, and it will be amazing to reconnect with the network and do cooperative research. Moreover, I participated in several research projects funded by the Institute of Information & Communications Technology Planning and Evaluation, National Research Foundation (NSF) Korea, and Korea Energy Technology Evaluation and Planning.

HORIZON-CL4-2025-03-DIGITAL-EMERGING-07: ROBUST AND TRUSTWORTHY GENERATIVE AI FOR ROBOTICS AND INDUSTRIAL AUTOMATION (AI/DATA/ROBOTICS & MADE IN EUROPE PARTNERSHIPS) (RIA)

Mustafa Özger

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HIGHLIGHTED AAU RESEARCH GROUPS

Member of Edge Computing and Networking (ECN) research group

RELEVANT LINKS OUTSIDE ACADEMIA

https://www.nordforsk.org

AREA OF EXPERTISE

Wireless Networks; non-terrestrial networks
Wireless Communications
Machine Learning
Edge computing
Reinforcement learning
Incremental learning

RELEVANT PROJECTS

Self Learning Drone Detection System

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HIGHLIGHTED AAU RESEARCH GROUPS

Machine Learning Group, Department of Computer Science, Aalborg University

RELEVANT LINKS OUTSIDE ACADEMIA

Collaborations with industry on probabilistic modeling and AI applications
Member of international research networks in probabilistic machine learning
Organizer of the Nordic Probabilistic AI School (ProbAI)

AREA OF EXPERTISE

Probabilistic Machine Learning
Trustworthy and Explainable AI
Deep Learning and Neural Networks
Probabilistic Programming
Modeling Uncertainty
Large-Scale Machine Learning

RELEVANT PROJECTS

Relevant Expertise:
Generative AI with uncertainty quantification
PAC-Bayesian approaches for robust AI models
Bayesian deep learning for reliable and interpretable AI

Relevant Projects:
Explainable Machine Learning: A Probabilistic Approach (Co-PI, Spanish National Grant, 2020-2022)

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HIGHLIGHTED AAU RESEARCH GROUPS

Data Engineering, Science and System
Artificial Intelligence and Machine Learning

MEMBERSHIP OF EU PARTNERSHIPS

Chapter Treasurer of Denmark Section Chapter, IEEE Computer Society

RELEVANT LINKS OUTSIDE ACADEMIA

National Natural Science Foundation of China (RMB: 300,000)
Chongqing Natural Science Foundation Innovation and Development Joint Project (Grant No. CSTB2023NS CQ-LZX0170, Chongqing China)
Scientific and Technological Research Program of Chongqing Municipal Education Commission (Grant No. KJQN202400637, Chongqing, China)

AREA OF EXPERTISE

My research mainly focusses on efficient, effective, and explainable representation learning (Foundation model) based on some advanced technologies, such as self-supervised learning, meta-learning, increment learning, especially for the smart transportation systems and spatial-temporal data mining.

RELEVANT PROJECTS

National Natural Science Foundation of China: Developing a Generalizable and Interpretable Foundation Model for the Spatiotemporal Trajectories of Moving Objects (RMB 300,000)
Chongqing Natural Science Foundation Innovation and Development Joint Project: Study on intelligent control of cabin air conditioning (RMB 1,000,000)
Scientific and Technological Research Program of Chongqing Municipal Education Commission: Research on Key Technologies for General Multimodal Spatiotemporal Data Analysis of Moving Objects for Open Scenes (RMB 40,000)
Doctoral Research Start-up Funding Project: Study on cross-domain spatiotemporal trajectory data representation learning (RMB 85,000)

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HIGHLIGHTED AAU RESEARCH GROUPS

Edge Computing and Networking (ECN) Group

RELEVANT LINKS OUTSIDE ACADEMIA

Member of IEEE

AREA OF EXPERTISE

Wireless Networking
Edge Intelligence
Machine Learning
Optimization Theory
Game Theory

RELEVANT PROJECTS

I work on the application of both traditional discriminative AI and generative AI in wireless networking and edge computing.

HORIZON-CL4-2025-04-DIGITAL-EMERGING-05: SOFT ROBOTICS FOR ADVANCED PHYSICAL CAPABILITIES (AI/DATA/ROBOTICS PARTNERSHIP) (IA)

Stine S. Johansen

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HIGHLIGHTED AAU RESEARCH GROUPS

Member of Human-Centred Computing, Department of Computer Science

RELEVANT LINKS OUTSIDE ACADEMIA

Industrial contacts in Denmark and Australia.

AREA OF EXPERTISE

Human-Computer Interaction, specialising in:
Human-robot interaction
Sound and soundscapes
Early-stage prototyping methods
Interaction design

Supporting human decision-making in human-robot collaboration.
Research experience:
Early-stage prototyping methods for human-robot interaction
Collaborative robots for advanced manufacturing of medical devices, focusing on human-centered design.
Sound as feedback modality for human operation of collaborative robots.

HORIZON-CL4-2025-04-DIGITAL-EMERGING-07: ENHANCED LEARNING STRATEGIES FOR GENERAL PURPOSE AI: ADVANCING GENAI4EU (AI/DATA/ROBOTICS PARTNERSHIP) (RIA)

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HIGHLIGHTED AAU RESEARCH GROUPS

Machine Learning Group, Department of Computer Science, Aalborg University

RELEVANT LINKS OUTSIDE ACADEMIA

Collaborations with industry on probabilistic modeling and AI applications
Member of international research networks in probabilistic machine learning
Organizer of the Nordic Probabilistic AI School (ProbAI)

AREA OF EXPERTISE

Probabilistic Machine Learning
Trustworthy and Explainable AI
Deep Learning and Neural Networks
Probabilistic Programming
Modeling Uncertainty
Large-Scale Machine Learning

RELEVANT PROJECTS

Relevant Expertise:
AI and probabilistic modeling
Generative AI frameworks and distributed AI systems
Open-source AI tools for academic and industry collaboration

Relevant Projects:
Probabilistic AI tools for scalable learning (NeurIPS, ICML publications)
Explainable Machine Learning: A Probabilistic Approach (Co-PI, Spanish National Grant, 2020-2022)
DarkScience Project: Illuminating microbial dark matter through data science (Villum Foundation)

Sean Bin Yang

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National Natural Science Foundation of China (RMB: 300,000)
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Scientific and Technological Research Program of Chongqing Municipal Education Commission (Grant No. KJQN202400637, Chongqing, China)

AREA OF EXPERTISE

My research mainly focusses on efficient, effective, and explainable representation learning (Foundation model) based on some advanced technologies, such as self-supervised learning, meta-learning, increment learning, especially for the smart transportation systems and spatial-temporal data mining.

RELEVANT PROJECTS

National Natural Science Foundation of China: Developing a Generalizable and Interpretable Foundation Model for the Spatiotemporal Trajectories of Moving Objects (RMB 300,000)
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Doctoral Research Start-up Funding Project: Study on cross-domain spatiotemporal trajectory data representation learning (RMB 85,000)

DESTINATION 5

OPEN STRATEGIC AUTONOMY IN DEVELOPING, DEPLOYING AND USING GLOBAL SPACE-BASED INFRASTRUCTURES, SERVICES, APPLICATIONS AND DATA

DESTINATION 5: CALLS

CALL – OPEN STRATEGIC AUTONOMY IN DEVELOPING, DEPLOYING AND USING GLOBAL SPACE-BASED INFRASTRUCTURES, SERVICES, APPLICATIONS AND DATA

HORIZON-CL4-2025-02-SPACE-12: Digital solutions for autonomy for space transportation systems, design and simulation tools - Digital enablers and building blocks (RIA)

HORIZON-CL4-2025-02-SPACE-13: Digital solutions for autonomy for space transportation systems, design and simulation tools – targeting demonstration (IA)

HORIZON-CL4-2025-02-SPACE-31: Digital enablers and building blocks for Earth Observation and Satellite telecommunication for Space solutions (RIA)

HORIZON-CL4-2025-02-SPACE-32: Preparing demonstration missions for collaborative Earth Observation and Satellite telecommunication for Space solutions (IA)

HORIZON-CL4-2025-02-SPACE-45: Supporting the AI/ML digital transition of Copernicus Services (RIA)

HORIZON-CL4-2025-02-SPACE-46: Innovative Earth observation services in support of maritime litter detection and ship source pollution policies (IA)

HORIZON-CL4-2025-02-SPACE-12: DIGITAL SOLUTIONS FOR AUTONOMY FOR SPACE TRANSPORTATION SYSTEMS, DESIGN AND SIMULATION TOOLS - DIGITAL ENABLERS AND BUILDING BLOCKS (RIA)

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HIGHLIGHTED AAU RESEARCH GROUPS

Member of Data Engineering, Science and Systems (DESS) group

MEMBERSHIP OF EU PARTNERSHIPS

Associate Editor
IEEE Network
IEEE Transactions on Intelligent Vehicles

AREA OF EXPERTISE

Data management and analytics
Intelligent transportation
Artificial intelligence and machine learning
Digital twin
Internet of Things
Edge and distributed computing
Autonomous vehicles

Expertise specific to this call: spatio-temporal data management and analytics, intelligent transportation, edge computing, digital twin, machine learning

RELEVANT PROJECTS

Project co-investigator, HORIZON, MobiSpaces: New Data Spaces for Green Mobility

Project co-investigator, DIREC, Multimodal Data Processing of Earth Observation Data

HORIZON-CL4-2025-02-SPACE-13: DIGITAL SOLUTIONS FOR AUTONOMY FOR SPACE TRANSPORTATION SYSTEMS, DESIGN AND SIMULATION TOOLS – TARGETING DEMONSTRATION (IA)

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HIGHLIGHTED AAU RESEARCH GROUPS
Member of Data Engineering, Science and Systems (DESS) group

MEMBERSHIP OF EU PARTNERSHIPS
Associate Editor
IEEE Network
IEEE Transactions on Intelligent Vehicles

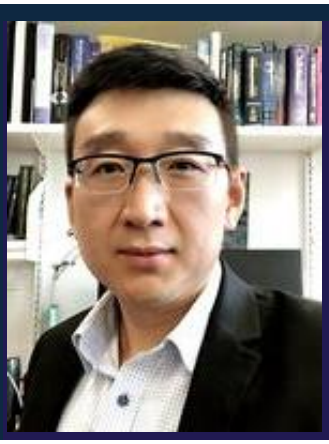
AREA OF EXPERTISE
Data management and analytics
Intelligent transportation
Artificial intelligence and machine learning
Digital twin
Internet of Things
Edge and distributed computing
Autonomous vehicles

Expertise specific to this call: spatio-temporal data management and analytics, intelligent transportation, edge computing, digital twin, machine learning

RELEVANT PROJECTS
Project co-investigator, HORIZON, MobiSpaces: New Data Spaces for Green Mobility

Project co-investigator, DIREC, Multimodal Data Processing of Earth Observation Data

HORIZON-CL4-2025-02-SPACE-31: DIGITAL ENABLERS AND BUILDING BLOCKS FOR EARTH OBSERVATION AND SATELLITE TELECOMMUNICATION FOR SPACE SOLUTIONS (RIA)



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HIGHLIGHTED AAU RESEARCH GROUPS
AI RF Sensors

AREA OF EXPERTISE
Experimental datasets (e.g. RIS, active phased arrays, power amplifiers, filters)
AI for communication systems (e.g. sensing and localization, AI for satellite communication, AI aided generative design of RF hardware)
Healthcare (e.g. wound infection detection, bone fracture monitoring, nano robot for cancer)
AI for satellite communications and remote sending

Cedomir Stefanovic

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HIGHLIGHTED AAU RESEARCH GROUPS

Leader of ECN research group

RELEVANT LINKS OUTSIDE ACADEMIA

DLR Germany, Keysight, Nokia, Otto Bock

AREA OF EXPERTISE

Wireless communications and networks
6G systems
IoT
Open-RAN
Digital health
Assistive robotics

RELEVANT PROJECTS

Disaggregated network architectures, access networks, digital twins
DFF project 2 3D-Twin “Distributed Digital Twin Architecture for 3D Network Optimization”

Yan Kyaw Tun

Department of Electronic Systems
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HIGHLIGHTED AAU RESEARCH GROUPS

Edge Computing and Networking (ECN) Group

RELEVANT LINKS OUTSIDE ACADEMIA

Member of IEEE

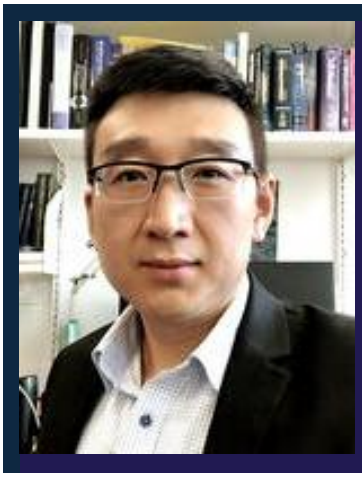
AREA OF EXPERTISE

Wireless Networking
Edge Intelligence
Machine Learning
Optimization Theory
Game Theory

RELEVANT PROJECTS

I have worked and am still working on space communication and computing with the help of AI and machine learning. All my published works on space communication and computing are funded by the Vinnova Center for Trustworthy Edge Computing Systems and Applications and the Swedish Research Council.

HORIZON-CL4-2025-02-SPACE-32: PREPARING DEMONSTRATION MISSIONS FOR COLLABORATIVE EARTH OBSERVATION AND SATELLITE TELECOMMUNICATION FOR SPACE SOLUTIONS (IA)



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HIGHLIGHTED AAU RESEARCH GROUPS

AI RF Sensors

AREA OF EXPERTISE

Experimental datasets (e.g. RIS, active phased arrays, power amplifiers, filters)
AI for communication systems (e.g. sensing and localization, AI for satellite communication, AI aided generative design of RF hardware)
Healthcare (e.g. wound infection detection, bone fracture monitoring, nano robot for cancer)
AI for satellite communications and remote sending

Mustafa Özger

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HIGHLIGHTED AAU RESEARCH GROUPS

Member of Edge Computing and Networking (ECN) research group

RELEVANT LINKS OUTSIDE ACADEMIA

https://www.nordforsk.org

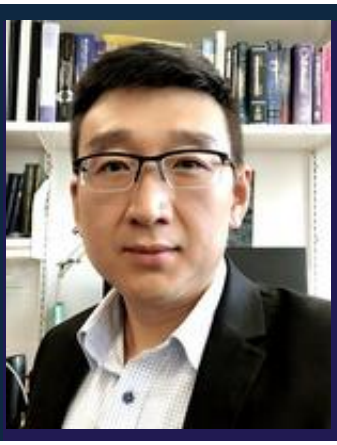
AREA OF EXPERTISE

Wireless Networks; non-terrestrial networks
Wireless Communications
Machine Learning
Edge computing

RELEVANT PROJECTS

Celtic Next 6G-SKY

HORIZON-CL4-2025-02-SPACE-45: SUPPORTING THE AI/ML DIGITAL TRANSITION OF COPERNICUS SERVICES (RIA)



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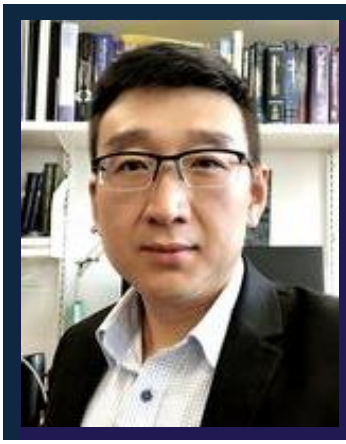
HIGHLIGHTED AAU RESEARCH GROUPS
AI RF Sensors

AREA OF EXPERTISE
Experimental datasets (e.g. RIS, active phased arrays, power amplifiers, filters)
AI for communication systems (e.g. sensing and localization, AI for satellite communication, AI aided generative design of RF hardware)
Healthcare (e.g. wound infection detection, bone fracture monitoring, nano robot for cancer)
AI for satellite communications and remote sending

HORIZON-CL4-2025-02-SPACE-46: INNOVATIVE EARTH OBSERVATION SERVICES IN SUPPORT OF MARITIME LITTER DETECTION AND SHIP SOURCE POLLUTION POLICIES (IA)



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HIGHLIGHTED AAU RESEARCH GROUPS
AI RF Sensors

AREA OF EXPERTISE
Experimental datasets (e.g. RIS, active phased arrays, power amplifiers, filters)
AI for communication systems (e.g. sensing and localization, AI for satellite communication, AI aided generative design of RF hardware)
Healthcare (e.g. wound infection detection, bone fracture monitoring, nano robot for cancer)
AI for satellite communications and remote sending

DESTINATION 6

A HUMAN-CENTRED AND ETHICAL DEVELOPMENT OF DIGITAL AND INDUSTRIAL TECHNOLOGIES

DESTINATION 6: CALLS

CALL – A HUMAN-CENTRED AND ETHICAL DEVELOPMENT OF DIGITAL AND INDUSTRIAL TECHNOLOGIES

HORIZON-CL4-2025-04-HUMAN-08: GenAI for Africa (RIA)

HORIZON-CL4-2025-03-HUMAN-18: GenAI4EU central Hub (AI/Data/Robotics Partnership) (CSA)

HORIZON-CL4-INDUSTRY-2025-01-HUMAN-66: Assessment of Technology Infrastructure needs in Ukraine (CSA)

HORIZON-CL4-2025-04-HUMAN-08: GENAI FOR AFRICA (RIA)

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HIGHLIGHTED AAU RESEARCH GROUPS

Edge Computing and Networking (ECN) Group

RELEVANT LINKS OUTSIDE ACADEMIA

Member of IEEE

AREA OF EXPERTISE

Wireless Networking
Edge Intelligence
Machine Learning
Optimization Theory
Game Theory

RELEVANT PROJECTS

I work on the application of both traditional discriminative AI and generative AI in wireless networking and edge computing.

HORIZON-CL4-2025-03-HUMAN-18: GENAI4EU CENTRAL HUB (AI/DATA/ROBOTICS PARTNERSHIP) (CSA)

Andrés R. Masegosa

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HIGHLIGHTED AAU RESEARCH GROUPS

Machine Learning Group, Department of Computer Science, Aalborg University

RELEVANT LINKS OUTSIDE ACADEMIA

Collaborations with industry on probabilistic modeling and AI applications
Member of international research networks in probabilistic machine learning
Organizer of the Nordic Probabilistic AI School (ProbAI)

AREA OF EXPERTISE

Probabilistic Machine Learning
Trustworthy and Explainable AI
Deep Learning and Neural Networks
Probabilistic Programming
Modeling Uncertainty
Large-Scale Machine Learning

RELEVANT PROJECTS

Relevant Expertise:
AI and probabilistic modeling
Generative AI frameworks and distributed AI systems
Open-source AI tools for academic and industry collaboration

Relevant Projects:
Probabilistic AI tools for scalable learning (NeurIPS, ICML publications)
Explainable Machine Learning: A Probabilistic Approach (Co-PI, Spanish National Grant, 2020-2022)
DarkScience Project: Illuminating microbial dark matter through data science (Villum Foundation)

HORIZON-CL4-INDUSTRY-2025-01-HUMAN-66: ASSESSMENT OF TECHNOLOGY INFRASTRUCTURE NEEDS IN UKRAINE (CSA)

Olena Kalyanova Larsen

Department of the Built Environment
The Faculty of Engineering and Science

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HIGHLIGHTED AAU RESEARCH GROUPS

Energy in Buildings

RELEVANT LINKS OUTSIDE ACADEMIA

Teacher in the Sustainable Building Renovation course offered by Molio, the knowledge center for the Danish construction and civil engineering industry.

AREA OF EXPERTISE

Intelligent glazed facades - methods for performance evaluation
Models for thermal and energy performance evaluation
Natural ventilation and flow behaviour, including ventilated cavities of double-skin facades
Building Energy Efficiency, including simulation of performance and dynamic energy certification methodologies
Low-carbon renovation, climate-neutral building design
Non-visible light properties in built environment
Valuation of renovation actions – quantification of an added value in the renovation of social housing

I have Ukrainian roots, speak Ukrainian, and possess knowledge of the building industry in Ukraine. There is a pressing need for innovative and cost-effective solutions to improve the energy efficiency of the country's building stock. Currently, I supervise a postdoctoral researcher focused on mapping the energy renovation gap in Ukraine’s building sector.