

Institute of Communication & Computer Systems (ICCS)



Expertise	<p>We specialize in digital solutions for circular economy, EO-based environmental monitoring, and Industry 5.0. Our expertise includes AI-driven tracing, sensor networks, XR for rural resilience, human-robot collaboration, and smart manufacturing with tailored sorters, co-robots, and digital twins.</p> <p>We are participating in 101 running research projects and coordinating 35 of them</p>
Organization name, town and country	<p>ICCS Ir. Politechniou 9, Zografou 157 73 Athens, Greece</p>
Addressed topic(s)	<p>Interested in topics around Cluster 2/4/5/6</p>

EU INDTECH 2025 Brokerage Event

Institute of Communication & Computer Systems (ICCS)



Founded as the research branch of the School of Electrical and Computer Engineering of the **National Technical University of Athens (NTUA)**.

Developing the Technologies of the future

ICCS today ranks among the top 3 Research Institutions in Greece and among the first 20 in EU -in terms of research funding.



350 +
International Partners
& Memberships



4450 +
R&D projects



39 Research Units



800 + Researchers,
Faculty & Staff



8 Spin- offs, Innovation
Hubs & Clusters



1650+ Scholarships,
Awards & Excellence



Advancing Basic & Applied Research
& Innovation at the intersection of
disciplines



200 +
Researchers,
Faculty & Staff



210 +
R&D projects



3 Spin- offs, I
nnovation Hubs & Clusters



10 Research
Divisions

DIVISIONS



Connected Cooperative Automated Mobility (CCAM)



Smart Mobility Applied Systems (SMAS)



Earth Observation and Environmental Monitoring



Intelligent Networks & Services (INS)



Multimodal Logistics & Maritime Operations



Crisis Management and Secure Societies (CMSS)



Industry 5.0 & Smart Manufacturing



Health Technologies



Circular Economy & Tracing (CET)



Extended Reality (XR)

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1200sqm Test facility and 118000 sqm Agricultural site



- **Accurate and reliable sorting capabilities**
 - Plastics, Minerals, Textiles, Wood and More
 - Pre-processing options available
- Comprehensive suite of techniques for **material analysis, classification and characterization**, in- and off-line
- **In-house AI-driven control algorithms**
- Industrial and high-speed **Robots and Cobots**
- **Data-driven insights, visualization and decision-support**
- **Energy Optimization scenarios**
- **In situ sensor testing and flatsat**

Possibility to run TRL6-7 pilots in our premises

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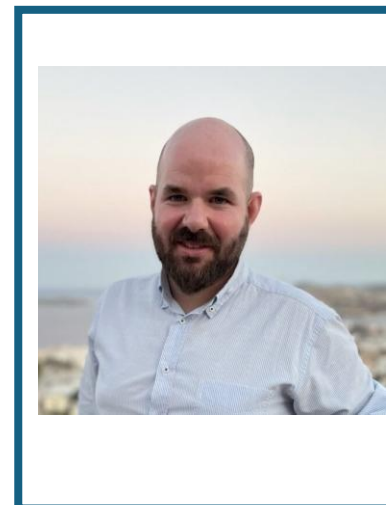
New Areas of Research and plans for 2025

- Development of novel mechanical sorters considering the whole engineering design
- End to end system design for mechanical processing in multiple sectors (e.g. proper grinding, multi sensing, robotics etc.)
- Sorting for biobased and food sector
- UGVs integrated with LLMs for smooth task execution, possibility to integrate additional robots
- Multi sensing stations with HSI, Xrays etc. and fusion. Possibility to develop generative models for specific sectors.
- XR for social inclusion in rural areas and acceptance for a sustainable future
- XR for human robot collaboration and digital twins
- Mass Flow Analysis , DPPs and integrated modelling for optimal design of resources at city/regional level.
- Energy storage modelling for renewable sources
- Environmental sensors design and development, including emerging pollutants and energy intensive processes
- On board processing for satellites and EO services for multiple domains
- Cal/Val services for thermal and additional data sources
- Climate change and environmental monitoring for Air,Water,Soil , including multi sensing options (e.g. citizen science, EO,)



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