

International Study Visit, Germany 27-31 Jan 2020



MIDDLE EAST TECHNICAL UNIVERSITY

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International Study Visits of TARAL to EU Key Players

METU | 3 CAMPUSES



**MAIN CAMPUS
ANKARA**
(founded in 1956)



**ERDEMLİ CAMPUS
MERSİN**
(founded in 1975)



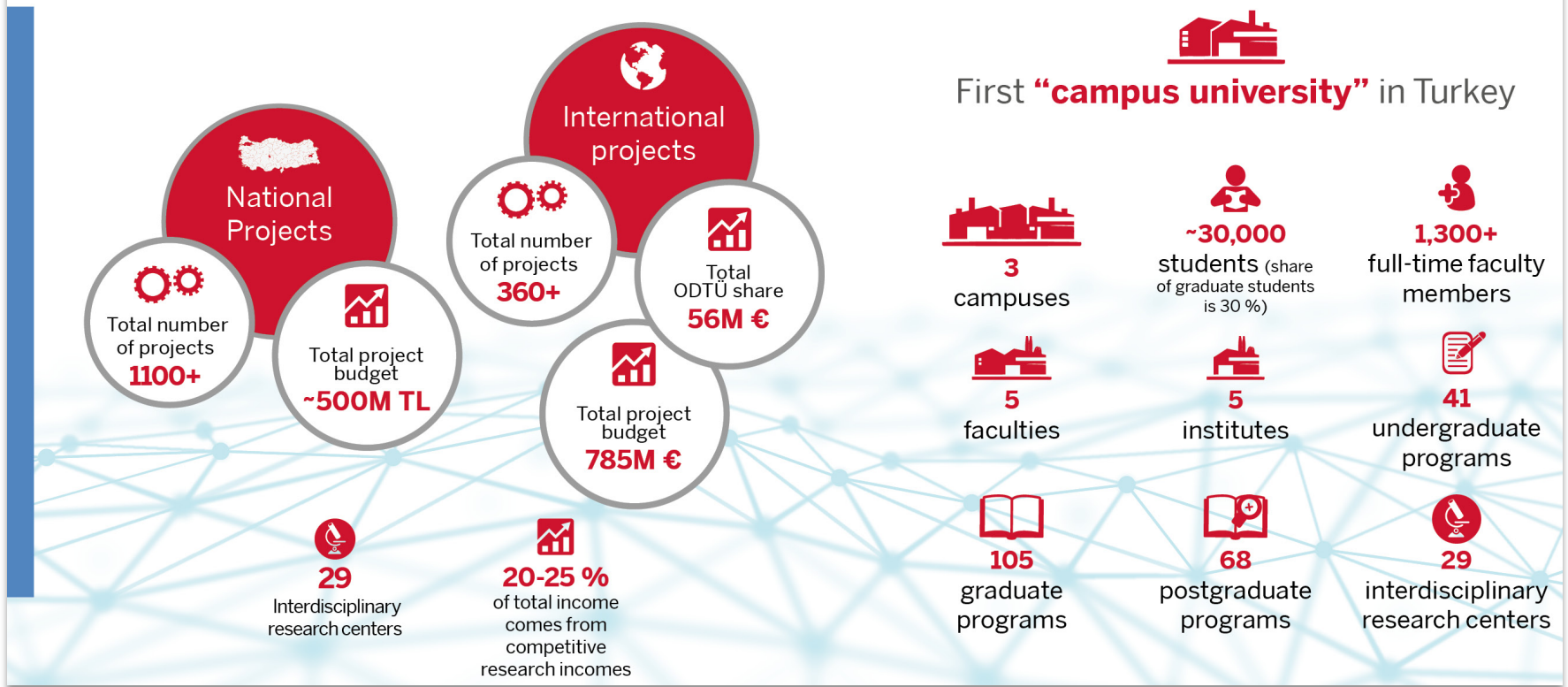
**NORTHERN
CYPRUS
KALKANLI**



International Study Visits of TARAL to EU Key Players

METU | AT A GLANCE

METU AS A RESEARCH UNIVERSITY



International Study Visits of TARAL to EU Key Players

METU | ERC PROJECTS

NEOGENE



ARCHAEOGENOMIC ANALYSIS OF GENETIC AND CULTURAL INTERACTIONS IN NEOLITHIC ANATOLIAN SOCIETIES



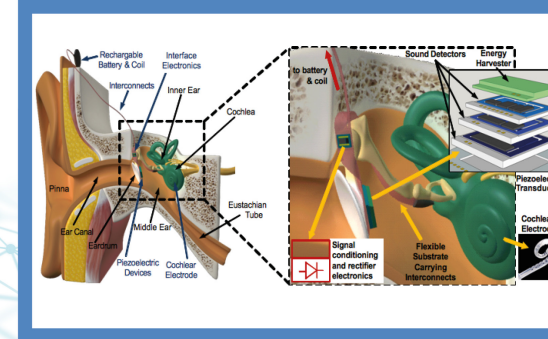
PROJECT BUDGET:
2.5 M €

FLAMENCO



A FULLY-IMPLANTABLE MEMS-BASED AUTONOMOUS COCHLEAR IMPLANT

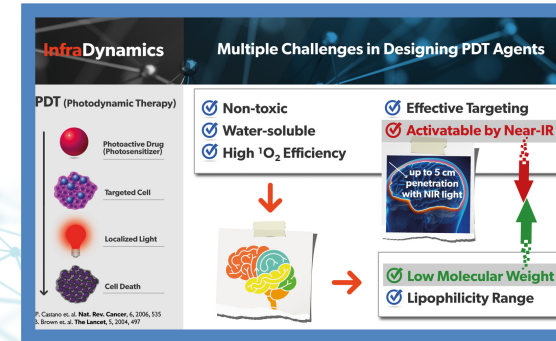
PROJECT BUDGET:
2 M €



INFRADYNAMICS

OVERCOMING THE BARRIERS OF BRAIN CANCER TREATMENT: TARGETED AND FULLY NIR ABSORBING PHOTODYNAMIC THERAPY AGENTS WITH EXTREMELY LOW MOLECULAR WEIGHTS AND CONTROLLED LIPOPHILICITY

PROJECT BUDGET:
1.5 M €



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METU | RESEARCH ECOSYSTEM

Research Coordination

- ~350 international projects with ~50M€ share
- 1st place among Turkish Research Organizations in Framework Programmes
- 35 H2020 projects with 12M€ EC Contribution

Technology Transfer

- Turkey's 1st technology transfer office
- 150+ inventions
- 250+ patent applications
- 350+ patents / licences

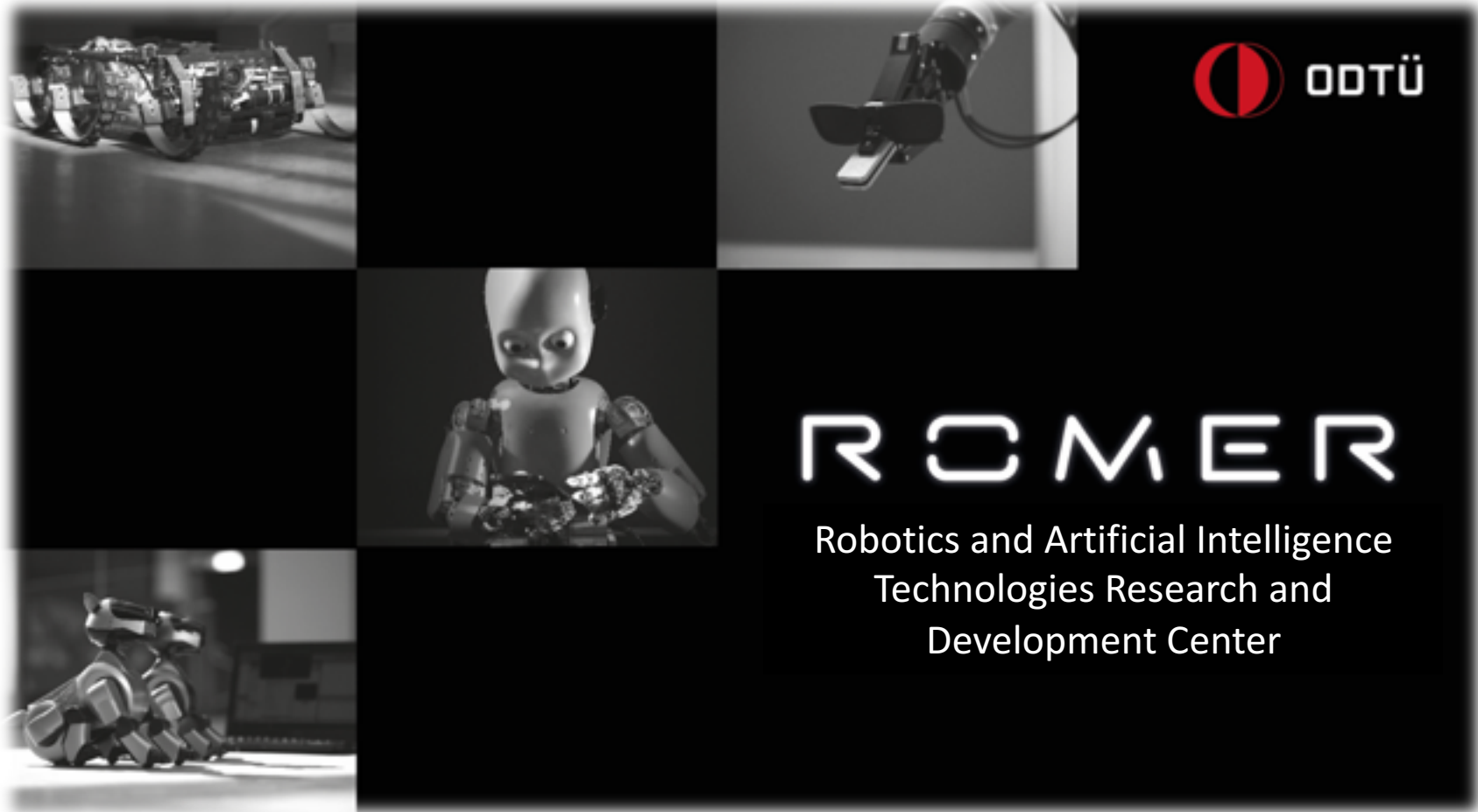
Technopark


- Turkey's 1st technology park
- 400+ technology companies
- 8.500+ researchers
- 1.4+ billion USD technology exports



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METU | ROMER a new center in the making



 **ODTÜ**

ROMER

Robotics and Artificial Intelligence
Technologies Research and
Development Center

 International Study Visits of TARAL to EU Key Players

What is/will be



ROMER

Robotics and Artificial Intelligence Technologies
Research and Development Center

- Centre of Excellence for Robotics and AI
- Funding of 6 million Euros over 3 years
 - 3000 m² of space
 - Mechanical and electronics prototyping workshops
 - State-of-the-art in-door and out-door arenas with motion trackers, measurement and testing infrastructure
 - State-of-the-art robotic platforms
- 3000 m² space allocated within a building hosting AI and Robotics SME and Industry



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ROMER

Robotics and Artificial Intelligence Technologies
 Research and Development Center

CMU, Stanford, JHU, UPenn, EPFL, KTH, IIT, Max Planck,....



17 Countries
51 Support letters

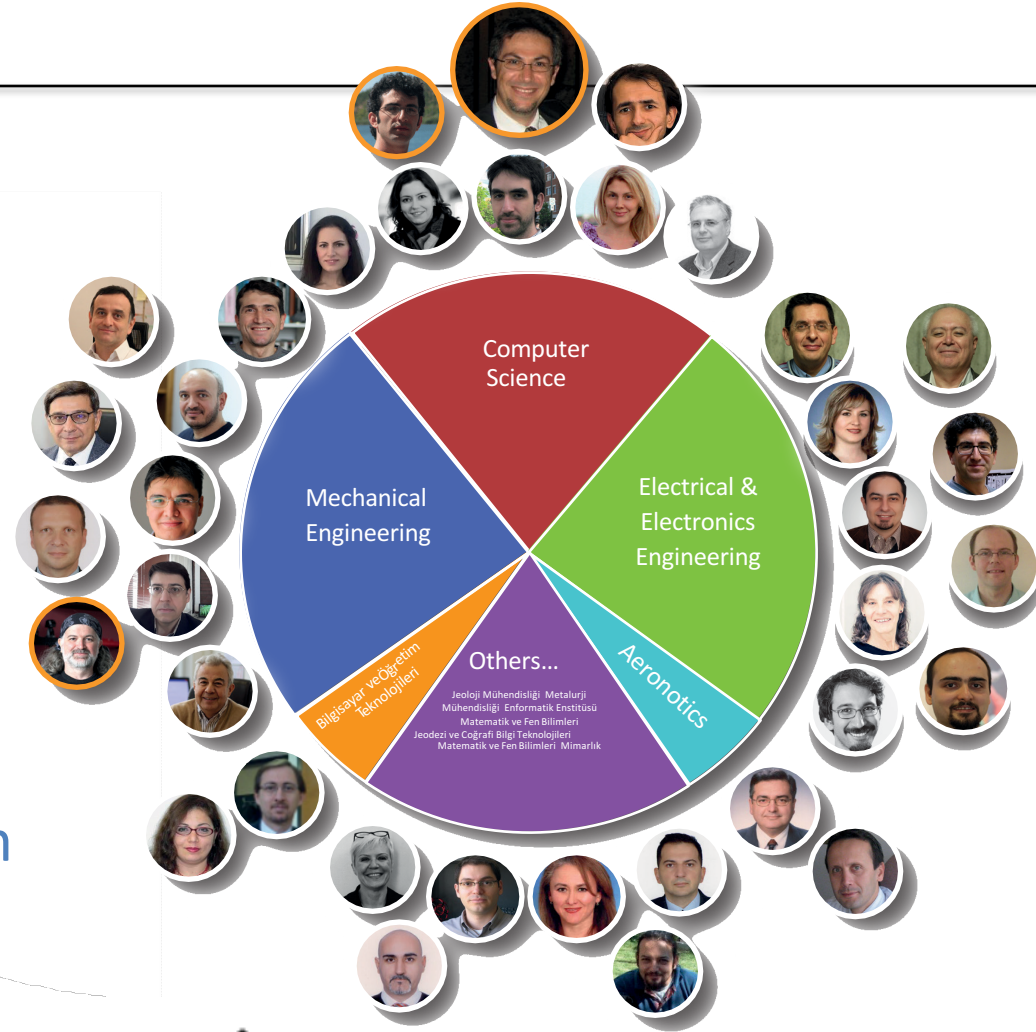
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ROMER

Robotics and Artificial Intelligence Technologies
 Research and Development Center

- >30 Faculty members from different departments
- > 70% with PhD from USA/Europe
- Integrate robotics and AI research
- Robotics Graduate Program



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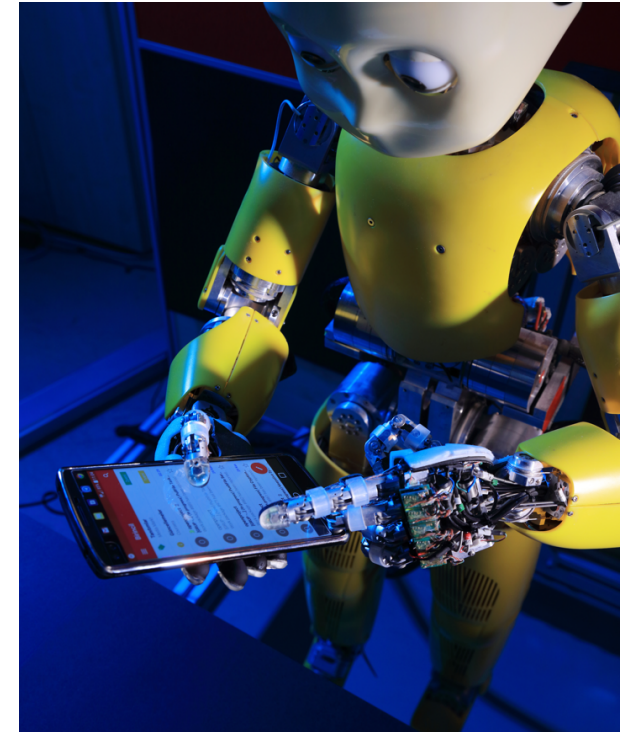
Why should you take note of ROMER?



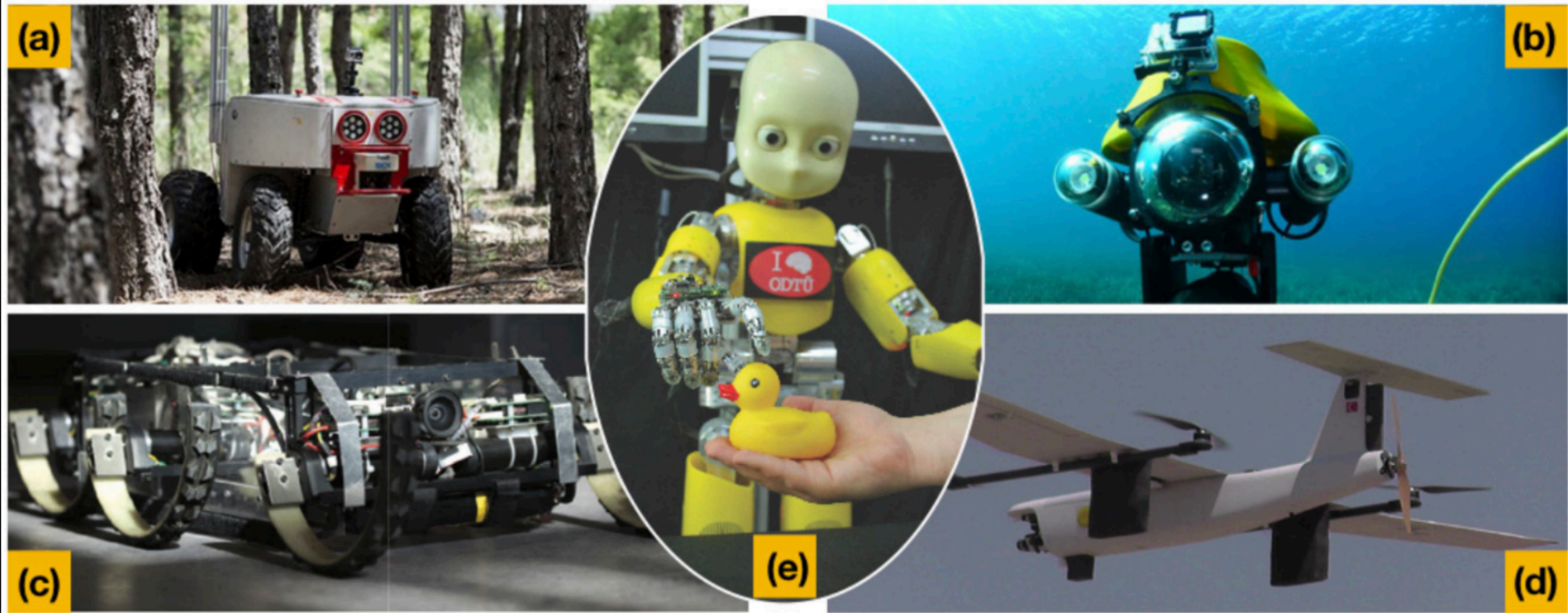
ROMER

Robotics and Artificial Intelligence Technologies
Research and Development Center

- A strong group of faculty that is **not yet fully connected to EU research framework.**
- Access to high-quality graduate student pool.
- Infrastructure support for projects.



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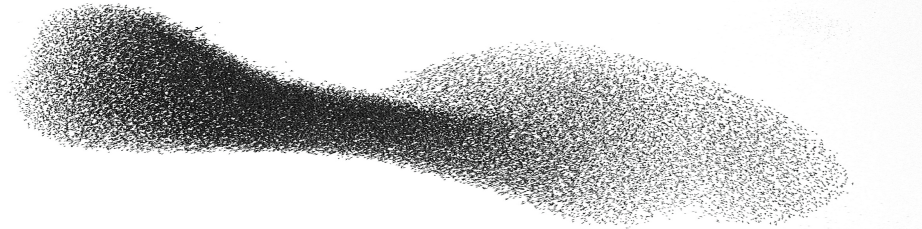
- **Related Calls**
 - **ICT-46-2020: Robotics in Application Areas and Coordination & Support**
 - **ICT-47-2020: Research and Innovation boosting promising robotics applications**

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ROMER

Robotics and Artificial Intelligence Technologies
Research and Development Center



- Self-organized coordination strategies for swarm robotic systems
- Self-organized flocking, aggregation and integration with planning
- Swarm of drones for infrastructure inspection, agriculture and security
- **Related Calls**
 - **ICT-46-2020: Robotics in Application Areas and Coordination & Support**
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Socially Cooperative

Human-Robot Interaction for Agile Production



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Robotics and Artificial Intelligence Technologies
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Idea: To develop collaborative robotic support to workers in manipulation tasks where the tasks are too demanding for state-of-the-art robotic systems.

- Novel methods in Human-Robot Interaction towards imbuing existing cobot platforms with HRI skills
- Motion planning in sensory-motor space
- Context-based perception and planning

- **Related Calls**

- **ICT-46-2020: Robotics in Application Areas and Coordination & Support**
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Potentially



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Research and Development Center

Our team can collaborate on:

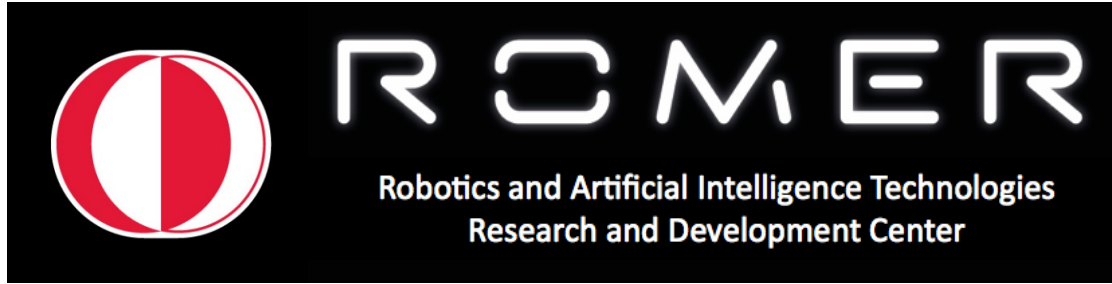
- Indoor / outdoor UGV & UAV applications
- Cognitive robotics
- HRI in manufacturing
- Haptic Interfaces
- Industrial applications of AI
- ...
- Let's discuss what you have in mind..

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