

# Master of Science in Robotics

Graduate School of Natural and Applied Science



# About Robotic Master Program

- First and Leading Robotic Master Program in Turkey
- Interdisciplinary MSc Program bringing all engineering fields
  - CENG, EEE, ME, AE
  - METU (ROMER) Center Robotic and Artificial Intelligence
- A researched focus MSc Program supported by METU ROMER
- Addressing challenging real world problem of today and future with robotics
  - logistics, manufacturing, healthcare, home robotics, space robotics



23.395

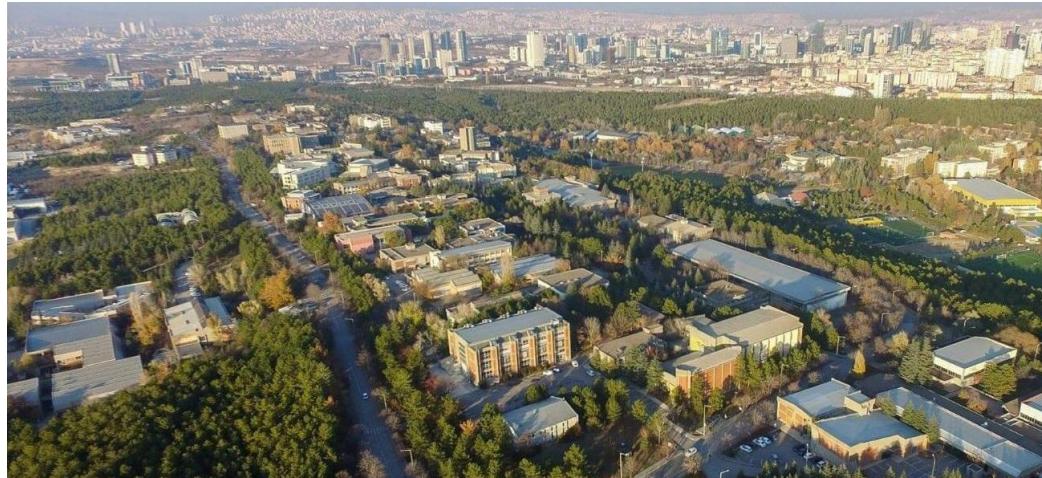
Student



154.897

Graduate

Grads	2022	2023	2024
MSc	1099	1020	856
PhD	254	401	375



## PROJECTS

185

BAP Projects

362

Revolving Fund Projects



310

TÜBİTAK Projects

95

International  
Cooperation Projects

# The Faculty

**CENG**

Uluç Saranlı  
Erol Şahin  
Emre Akbaş  
Ramazan Gökberk Cinbiş  
Sinan Kalkan  
Pelin Angın



**ME**

A. Buğra Koku  
E. İlhan Konukseven  
Yiğit Yazıcıoğlu  
Ali Emre Turgut  
M. Efe Tiryaki



**EEE**

M. Mert Ankaralı  
Emre Özkan  
Afşar Saranlı  
Ozan Keysan  
İlkay Ulusoy

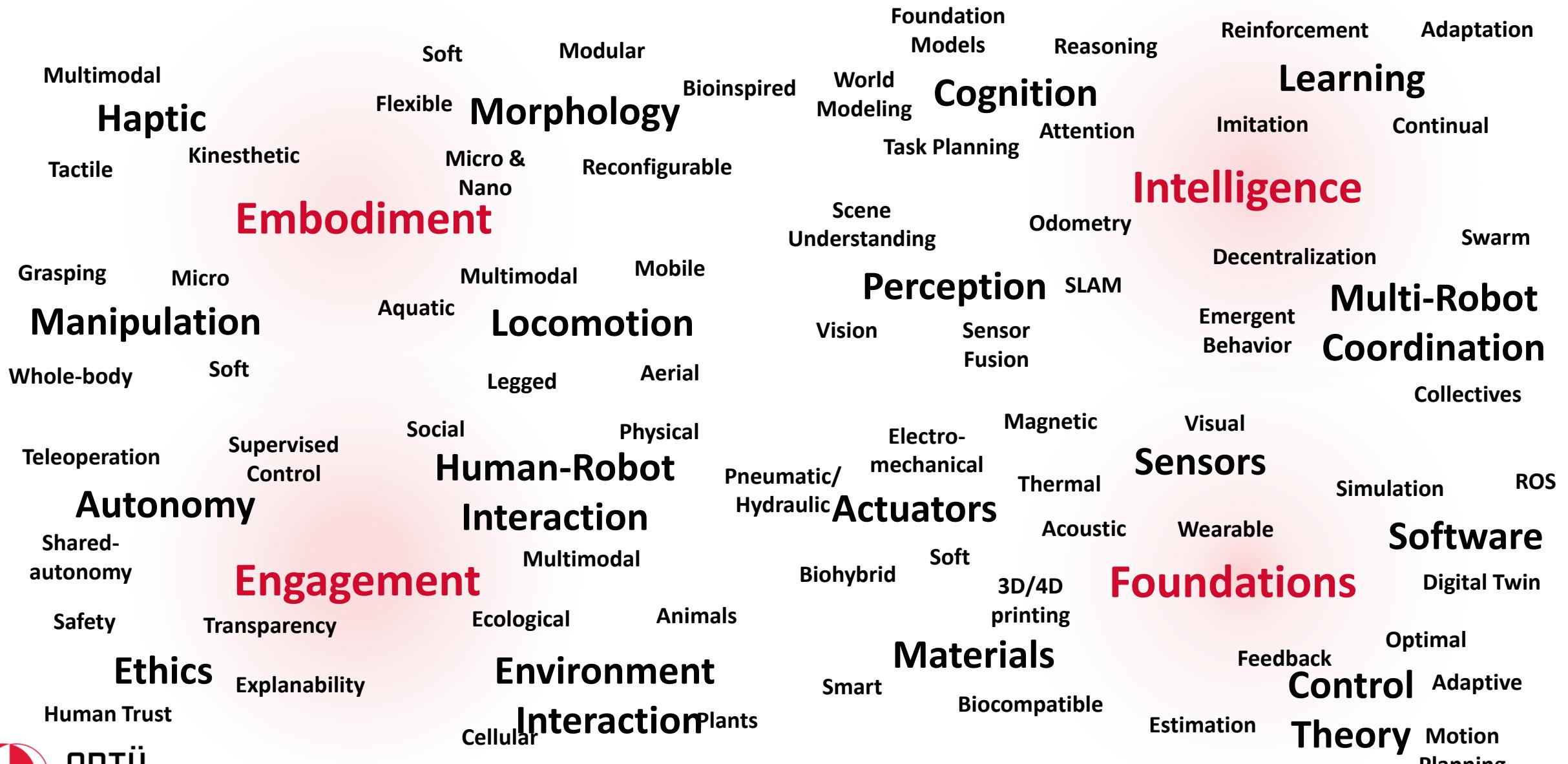


**AE**

H. Ersin Söken



# Robotic Research Areas



# Courses



## Computer Engineering

CENG501 - Deep Learning  
CENG502 - Advanced Deep Learning  
CENG585 - Fundamentals of Autonomous Robotics  
CENG782 - Planning of Robotic Manipulation  
CENG786 - Robot Motion Planning and Control  
CENG787 - Robot Locomotion: Models and Algorithms  
CENG788 - Learning and Development in Robotics  
CENG561 - Artificial Intelligence  
CENG562 - Machine Learning  
CENG564 - Pattern Recognition  
CENG580 - Multiagent Systems  
CENG583 - Computer Vision  
CENG732 - Computer Animation  
CENG796 - Deep Generative Models

## Mechanical Engineering

ME502 - Advanced Dynamics  
ME506 - Dynamics of Nonlinear Systems  
ME507 - Applied Optimal Control  
ME511 - Modern Control  
ME513 - Vehicle Dynamics  
ME519 - Kinematic Analysis of Mechanisms  
ME522 - Principles of Robotics  
ME533 - Computer Aided Design  
ME534 - Computer Control of Machines  
ME536 - Design of Intelligent Machines  
ME551 - Design of High Precision CNC Machinery

## Electrical-Electronics Engineering

EE501 - Linear Systems Theory I  
EE502 - Linear Systems Theory II  
EE543 - Neurocomputers and Deep Learning  
EE553 - Optimization  
EE554 - Optimal Control Theory  
EE555 - Stability Theory of Dynamical Systems  
EE557 - Estimation Theory  
EE558 - System Identification & Adaptive Control  
EE559 - Intelligent Control  
EE583 - Pattern Recognition  
EE584 - Machine Vision  
EE585 - Probabilistic Robotics  
EE586 - Artificial Intelligence  
EE587 - Introduction to Robotics  
EE588 - Robot Hand: Dynamics of Manipulation  
EE5420 - Machine Learning by Probabilistic Models  
EE7551 - Discrete Event Systems: Modeling & Controlz

## Aerospace Engineering

AE501 - Advanced Mathematics for Engineers I  
AE502 - Advanced Mathematics for Engineers II  
AE581 - Automatic Flight Control Systems  
AE582 - Robust Control in Aerospace Systems  
AE584 - Helicopter Dynamics, Stability and Control

# Robotic Industry in Turkey

Home

**beko**

**TÜBİTAK**

**UZAY**  
**aselsan**

**TURKISH  
AEROSPACE**

**BAYKAR**

**roketsan**

Defense

**TÜBİTAK**  
**BİLGEM**

**MiLVUS**  
ROBOTICS

**teknopar**  
Industrial Automation

**ODTÜ**  
**METU**

**İNDİGO TARIM**

**KUARTIS**  
**Ekin**  
SAFE CITY TECHNOLOGIES

Manufacturing

**MCFLY**  
Robot Technologies

**bama**  
teknoloji

Healthcare

# Alumni careers after METU

**aselsan**



**Apple**

**roketsan**



**Ekin**  
SAFE CITY TECHNOLOGIES

**BERTEC**

**OBSensor**  
Robust Precision

**KUARTIS**

**MECH MIND**

**BENTLEY**

**GOFORE**



**seavus**

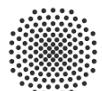
**ODTÜ**  
METU



**HARVARD**  
UNIVERSITY



**ÉCOLE POLYTECHNIQUE  
FÉDÉRALE DE LAUSANNE**



**University of  
Stuttgart**



**WISCONSIN**  
UNIVERSITY OF WISCONSIN-MADISON



**TECHNISCHE  
UNIVERSITÄT  
WIEN**



**VU**  
UNIVERSITY  
AMSTERDAM

**UNIVERSITY OF  
COPENHAGEN**



**MAX PLANCK INSTITUTE  
FOR INTELLIGENT SYSTEMS**



**Carnegie  
Mellon  
University**



**Massachusetts  
Institute of  
Technology**

**Imperial College  
London**

**VANDERBILT  
UNIVERSITY**

**TENNESSEE  
STATE UNIVERSITY**

**UNIVERSITY OF LEEDS**



**Deutsches Zentrum  
für Luft- und Raumfahrt  
German Aerospace Center**

**VUB**  
VRIJE  
UNIVERSITEIT  
BRUSSEL

**universität  
innsbruck**



**ODTÜ  
METU**



**KOÇ  
UNIVERSITY**



**ÖZYEĞİN  
UNIVERSITY**

**TÜBİTAK  
UZAY**