



# 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

# METU



23.395

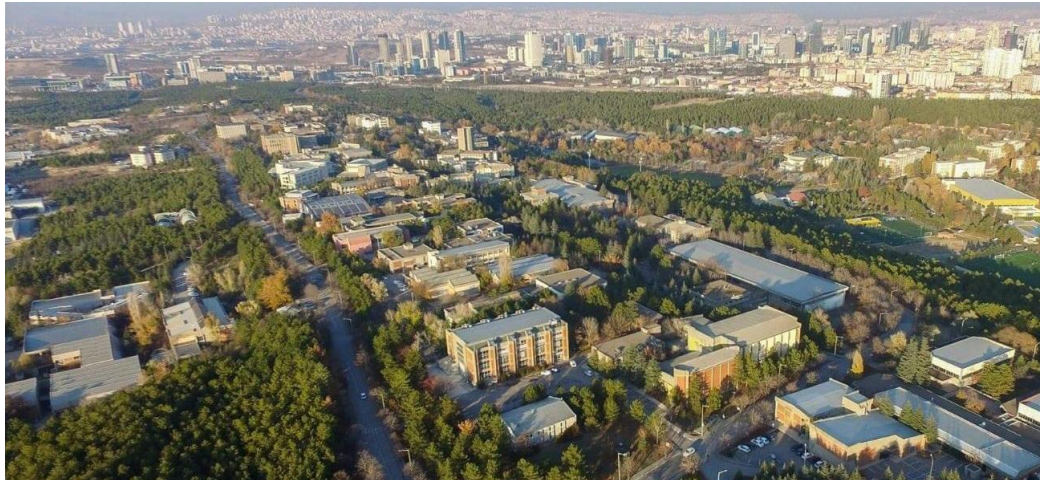
Student



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

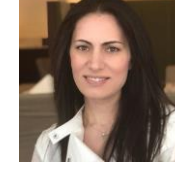


ODTÜ  
METU

# The Faculty

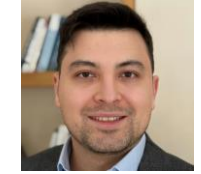
## CENG

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



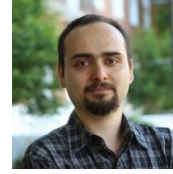
## ME

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



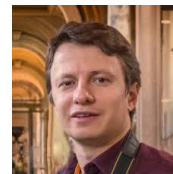
## EEE

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

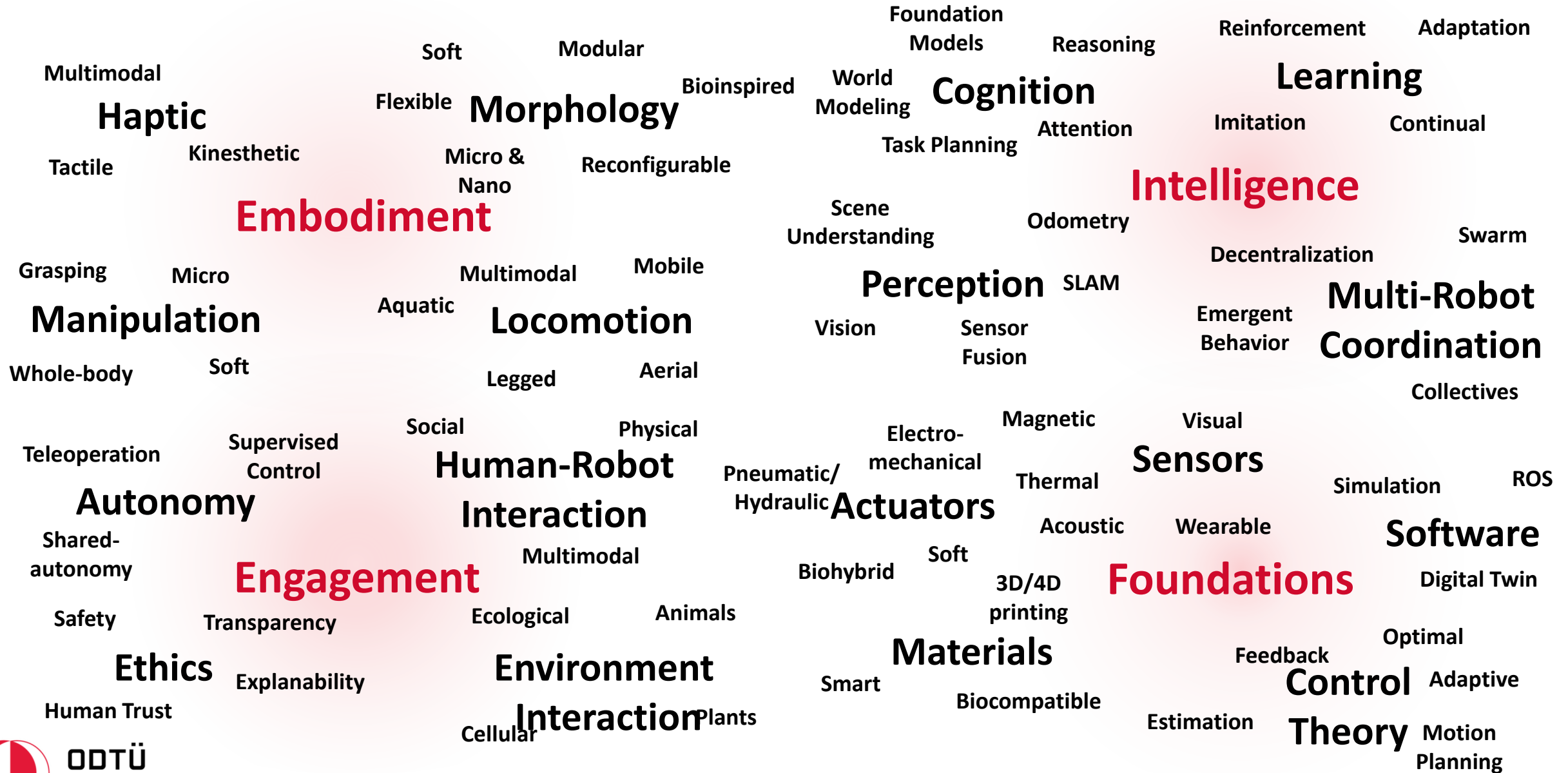


## AE

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 & Control

## 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**



Manufacturing



**teknopar**  
Industrial Automation



**aselsan**



**TURKISH  
AEROSPACE**



Defense



Healthcare

# Alumni careers after METU

aselsan Apple

TURKISH AEROSPACE Google

roketsan MILVUS ROBOTICS

Ekin SAFE CITY TECHNOLOGIES KUARTIS

BERTEC

OBSensor Robust Precision

MECH MIND

BENTLEY GOFORE TAAC HAVACILIK TEKNOLOJİLERİ

seavus

ODTÜ METU

HARVARD UNIVERSITY

EPFL ÉCOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE

University of Stuttgart Georgia Tech.

WISCONSIN UNIVERSITY OF WISCONSIN-MADISON

TU WIEN TECHNISCHE UNIVERSITÄT WIEN

VU UNIVERSITY AMSTERDAM

UNIVERSITY OF COPENHAGEN

MAX PLANCK INSTITUTE FOR INTELLIGENT SYSTEMS

MIT Massachusetts Institute of Technology Imperial College London

VANDERBILT UNIVERSITY

UNIVERSITY of WASHINGTON

HELSINGIN YLIOPISTO HELSINGFORS UNIVERSITET UNIVERSITY OF HELSINKI

VU UNIVERSITY AMSTERDAM

UNIVERSITY OF COPENHAGEN

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HELSINGIN YLIOPISTO HELSINGFORS UNIVERSITET UNIVERSITY OF HELSINKI

VU UNIVERSITY AMSTERDAM

UNIVERSITY OF COPENHAGEN

Carnegie Mellon University

TECHNISCHE UNIVERSITÄT BERLIN TUDelft

TENNESSEE STATE UNIVERSITY

UNIVERSITY OF LEEDS

DLR

Deutsches Zentrum für Luft- und Raumfahrt German Aerospace Center

VUB VRIJE UNIVERSITEIT BRUSSEL universität innsbruck

ODTÜ METU

BOĞAZICI ÜNİVERSİTESİ 1863

ERZURUM-TATULUK-ÜNİVERSİTESİ 1957

KOÇ UNIVERSITY

SÜLEYMAN DEMİREL ÜNİVERSİTESİ 1992

2011

ÖZYEĞİN UNIVERSITY

TÜBİTAK UZAY