

S P E C T R O

SPECIALISED EDUCATION PROGRAMMES IN CYBERSECURITY AND ROBOTICS



Co-funded by
the European Union

MSc in Autonomous Systems and Intelligent Robots

EIT Digital Byte & Slice – November 28, BME

Entry and Exit years **@BME**

(with scholarships to EU citizens)

Program coordinator: Bálint Kiss (bkiss@iit.bme.hu)



Year 1

Entry University

AUTONOMOUS SYSTEMS AND INTELLIGENT ROBOTS (AUS)

Year 2

Exit University

Eötvös Loránd University
HUNGARY

KTH Royal Institute of Technology
SWEDEN

University of Trento
ITALY

Budapest University of Technology and Economics
HUNGARY

Université Côte d'Azur
FRANCE

University of Bologna
ITALY

Aalto University
FINLAND

Eötvös Loránd University
HUNGARY

KTH Royal Institute of Technology
SWEDEN

University of Trento
ITALY

Budapest University of Technology and Economics
HUNGARY

EURECOM
FRANCE

University of Bologna
ITALY

Aalto University
FINLAND

Two universities
Two degrees



Students must choose a different country and university for entry AND exit years

The available **scholarships** are:

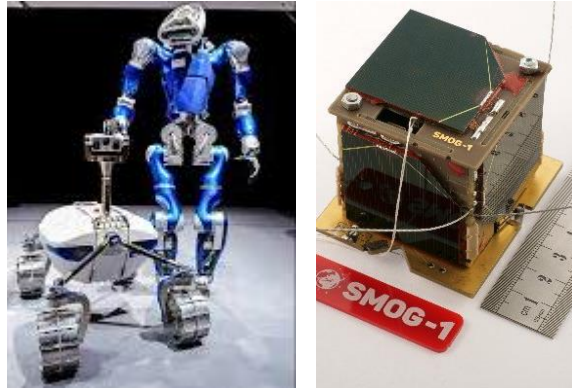
- Scholarships of Excellence (only available to EU applicants) - Full tuition fee waiver and monthly allowance (based on average living costs in the study country)
- Full tuition fee waiver



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AUSIR - Autonomous systems and Intelligent Robots



Key technologies in AUSIR

- Robotics and machine vision
- Internet of Things and communication
- Automation and control
- Embedded systems
- Artificial intelligence

Experts identify the primary source of growth in industrialized countries as the scaling-up of such disruptive technologies.



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Key AUSIR paradigm: sense – think – act

Autonomous decision making

1. Modelling and control
2. (AI-based) Algorithms
3. Safety and security
4. Implementation on embedded HW and in RT



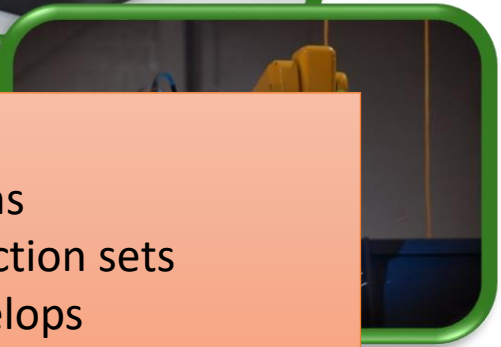
Sensing (device and its env.)

1. Transducers
2. Machine vision
3. Image processing
4. Estimation techniques



Actuation

1. Mechanisms
2. Available action sets
3. Safety envelops

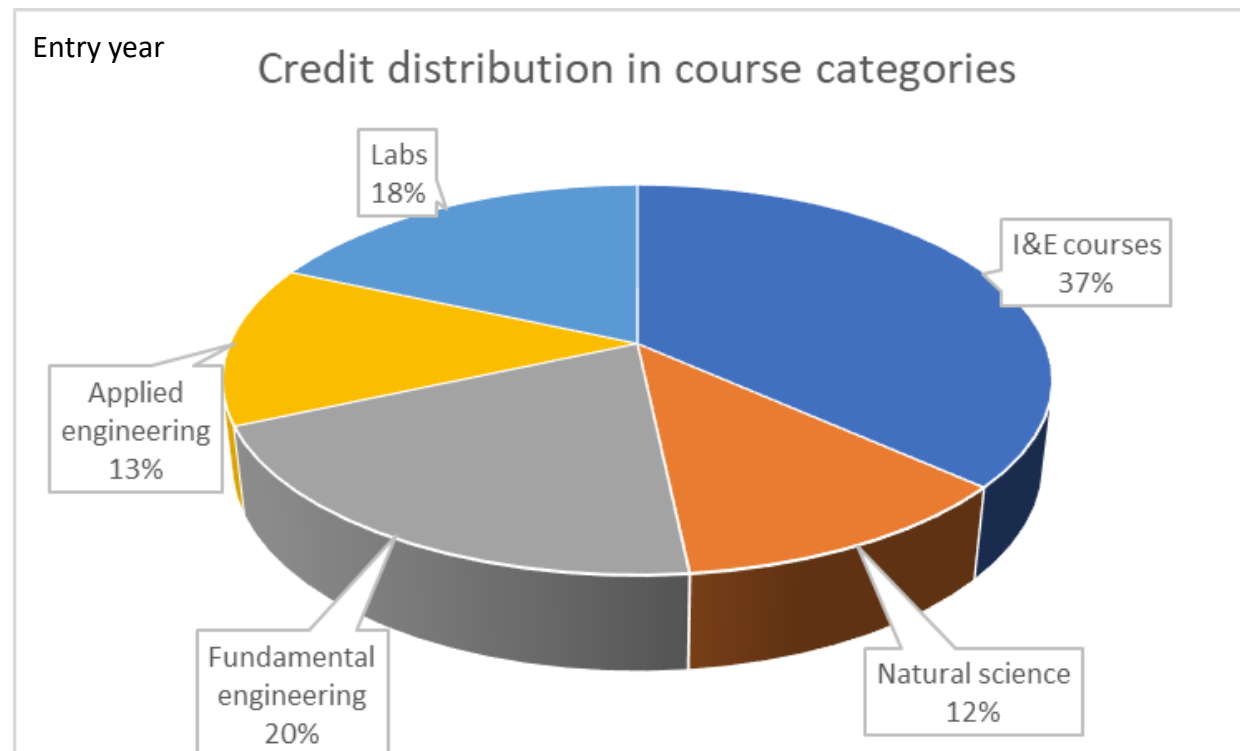


A special feature: the I&E component

Experts identify the primary source of growth in industrialized countries as the scaling-up of such disruptive technologies to products and services.



Response of SPECTRO: Deep-tech + Innovation and Entrepreneurship



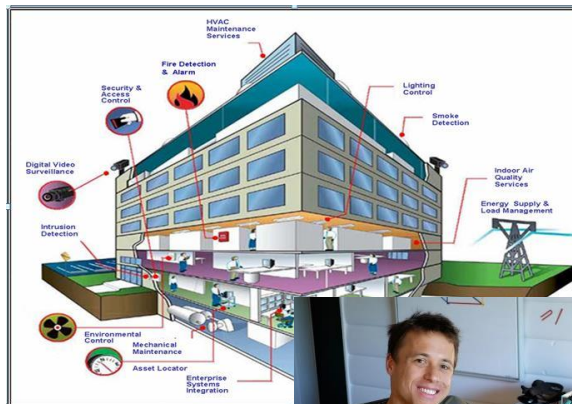
Choices of orientations of our graduates



Manufacturing



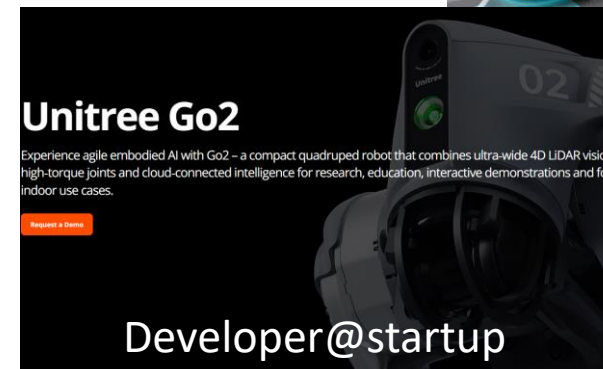
Robotics



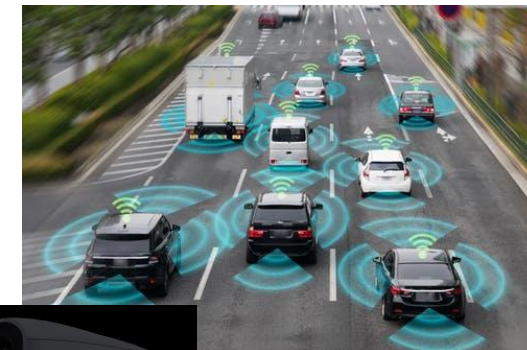
Smart building



Own company



Developer@startup



Autonomous vehicles

Further information

JOINT DEGREE MSC PROGRAMMES OF EIT DIGITAL

The EIT Digital Master School offers a two-year education programme in which the two years (entry, exit) are completed in two different European countries, and the two universities provide double degrees combining technical competence with skills in Innovation and Entrepreneurship.

[Further information on the Master School](#)
[Application for the Master School](#)



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<https://www.vik.bme.hu/en/education/eit-digital-master-programmes/>