



TOWARDS INTELLIGENT MACHINES

AI Engineering Lab

Artificial Intelligence (AI) is rapidly becoming a disruptive technology in many applications. After a first wave of successful AI-based consumer applications, a second wave of AI-based industrial applications is on the horizon. Bridging the gap between engineering and AI is essential to be successful in this second wave.

EAISI

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Artificial Intelligence made rapid progress in consumer applications the last few years. Companies like Google, Amazon, Facebook and Uber created new consumers applications and business models by applying analytics to their customer data. This success motivates a second wave of applications, driven by industrial players. One essential difference between these two waves is that the latter deals with applying AI algorithms to **sensor data**. This is where **engineering meets artificial intelligence** and domain knowledge becomes essential in order to guarantee safe and correctly working intelligent machines.

AI-DRIVEN INDUSTRIAL APPLICATIONS

Much is expected from AI-driven industrial applications. Pioneering applications include predictive maintenance, digital twins, autonomous robots, smart cameras and intelligent process optimization. Creating intelligent machines encompass more than just algorithms, and include aspects such as sensors, embedded systems, mechatronics, control theory, physics, and more. Much research needs to be carried out to understand how to build and benefit from these and future applications.

AI ENGINEERING LAB

The AI Engineering Lab (AI/e Lab) is an initiative from two centers of Eindhoven University of Technology, Data Science Center and High Tech Systems Center, and is to accelerate cutting-edge AI research for 'second wave' sensor-driven AI applications. The lab brings together researchers across the areas of mechatronics, data science, mathematics, computer science, computer vision, embedded systems, robotics, control engineering and more. To the industry, the lab provides access to knowledge and talents; to the researchers, the lab provides resources and support to carry out cutting-edge AI research. Co-location further supports a multi-disciplinary way of working.

BRAINPORT REGION

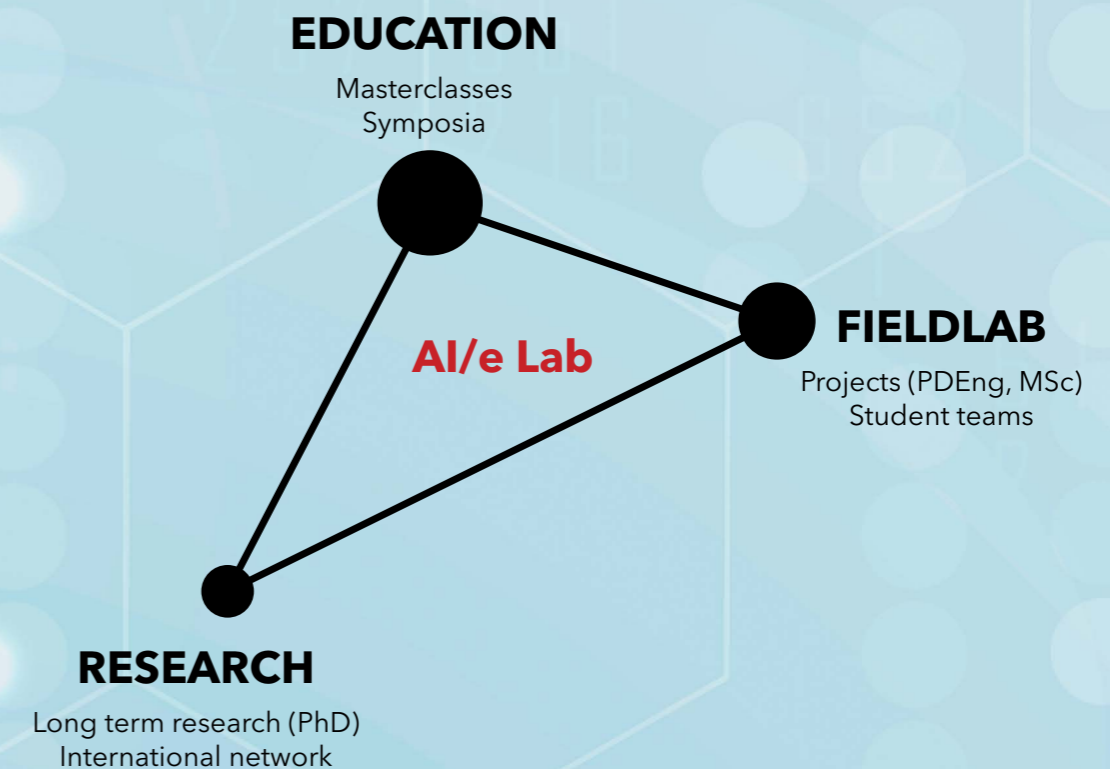
The AI/e Lab is located at the Eindhoven University of Technology (TU/e) in the middle of Brainport, the innovative high-tech region with many high-tech engineering companies. TU/e has a long academic track record of supporting the innovations at these high-tech companies, as well as educating many (industry) talents. It is the right hotspot for building a lab that aligns the needs of various stakeholders interested in preparing for this second-wave AI applications.

SERVICES

The AI/e lab offers the following services:

- **Fieldlab** - An open learning and innovation environment where industry, researchers and students work on challenging data- and AI-driven projects.
- **Research** - PhD research programs on open questions in state-of-the-art AI research.
- **Education** - Training and coaching by leading experts from industry and universities, who combine insights from academics with many years of industrial experience.

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The AI/e Lab is to accelerate cutting-edge AI research for 'second wave' sensor-driven AI applications.

GET INVOLVED!

For more information about the AI/e lab and information on how to get involved, please contact us via:

www **tue.nl/ai**
email **aie-lab@tue.nl**
phone **+31 (0)40 247 4659**

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