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See our projects!

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Human-AI Laboratory (HAL)

A didactic laboratory established in 2021 at the Jagiellonian University under the project **HAL2021: Human-AI Laboratory** (ArsDocendi UJ; project number: 37.2020).

The laboratory includes the equipment needed to conduct practical laboratory classes focusing on **modern methods of human-machine interaction based on artificial intelligence methods**. In particular, the laboratory is equipped with:

- 3x biosignalsplux Explorer **physiological signal measurement kits**
- **Hardware acceleration modules for AI**: 2x Groove AI Hat (for Raspberry Pi), 2x Intel Neural Compute Stick 2 (with USB interface), 4x Google Coral Dev Board (standalone boards)
- 4x **Raspberry Pi** 4B minicomputers
- 5x **Android phones** with NPU module dedicated to machine learning and with ARcore SDK support for augmented reality solutions (XIAOMI Mi 10 Lite 5G 6/128 GB)
- 2x 1TB **external drives** for data collected in experiments

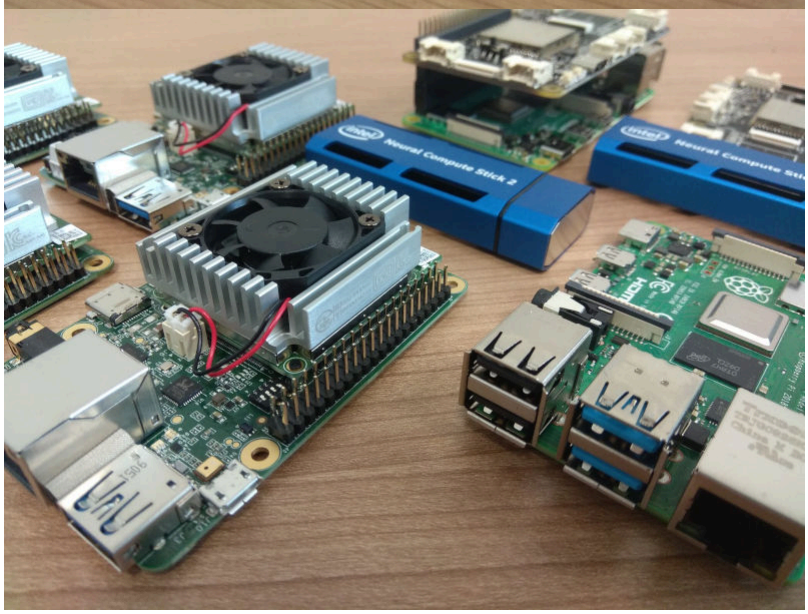







earable body sensing platform





Equipment from the lab is used in the following courses, among others:

- *AI workshop I & II* (WFAIS.IF-XG322.0, WFAIS.IF-XG324.0)
- *Psycho-physiological signal analysis workshop* (WFAIS.IF-X218.0)
- *Ambient Intelligence Systems* (WFAIS.IF-XG323.0)
- *Data Mining workshop* (WFAIS.IF-X217.0)

Old times

Ambient Intelligence Laboratory (AGH-UST; 2012-2021)

- Ambient Intelligence & Augmented Reality
- Visual Modelling for Creativity


Wykładowcy specjalności Systemy Inteligentne
Kreatywni wnieją




EIS 2013







Equipment

- 16 laptop computers

- 2 android smartphones
- 4 android tablets
- 1 (so far) pair of augmented reality glasses
- 1 smartboard

Idea

Ubiquitous computing recently gain a huge popularity in a field of artificial intelligence. Tablets, smartphones, and in a near future - augmented reality glasses - all of these are omnipresent in human daily life. Mobile devices became more user friendly, but at the same time more “programmer-friendly” and computationally powerful. All of this makes them perfect tools for researchers and engineers.

The Ambient Intelligent Laboratory was built to

- exploit possibilities of modern mobile devices in artificial intelligence,
- give students and researchers chance to be up-to-date with scientific and technical trends,
- provide a place and tools for students and researchers that will allow for advancements in both professional and scientific skills
- make science more ambient and ubiquitous

Labs and equipment

At the team disposal are two modern computer labs. In the labs a heterogeneous networking environment is provided with both GNU/Linux as well as other environments.

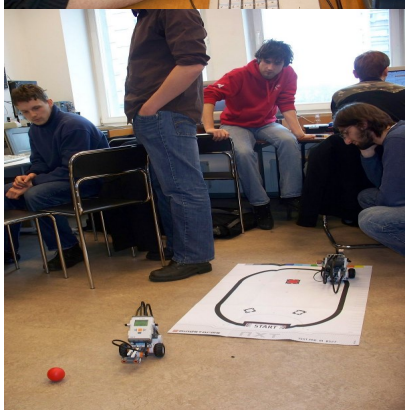
In 2008 a new robotics lab (Mobile Robots Laboratory) has been created. It is equipped with 12 LEGO Mindstorms NXT robotic sets and two mobile robots Hexor by Stenzel. The lab is being used to teach basics of intelligent robots control.











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