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International projects

- **ERASMUS + Project: Boosting the role of HEls in the industrial transformation towards the Industry 4.0 paradigm in Georgia and Ukraine**

- **The following activities were performed within the project:**
- Virtual laboratory was arranged for students specialized in Electrical Engineering and Civil Engineering;
- Computer equipment for this laboratory was purchased (16 computers, projector, monitor unit, screen).

- **In terms of the Industry 4.0 paradigm, in the educational programs there are planned laboratory works on Smart Home simulation in syllabi of the following subjects:**
- Green Building and Energy Performance of Buildings (Civil Engineering);
- Electronic Devices for Automated Surveillance and Control (Electrical Engineering).

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Virtual Laboratory

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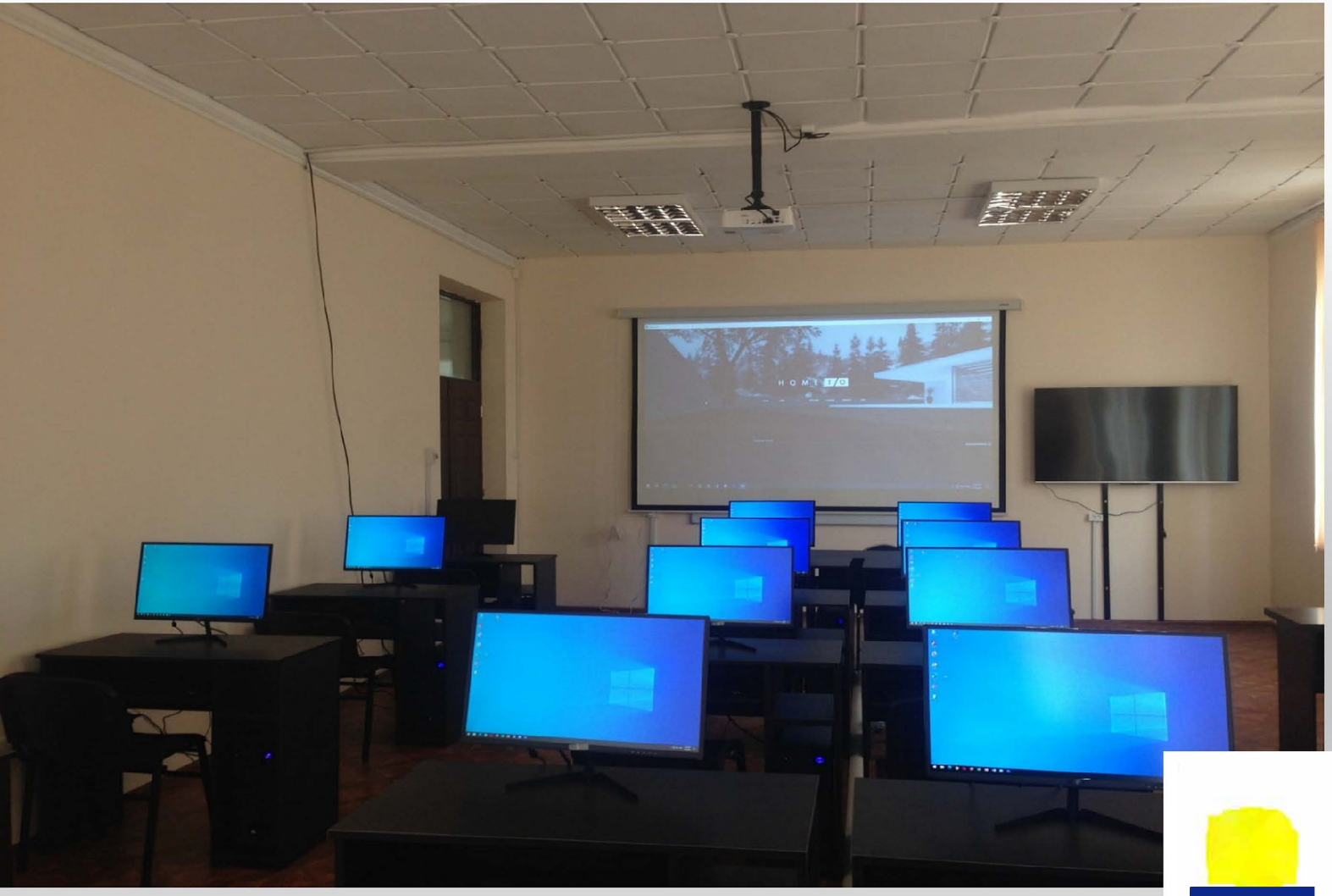

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The laboratory concept was developed within the ERASMUS Project: Boosting the role of HEIs in the industrial transformation towards the Industry 4.0 paradigm in Georgia and Ukraine.

In terms of the Industry 4.0 paradigm, the educational programs involve laboratory works on Smart Solar Systems simulation which are introduced in a syllabus of the discipline "***Renewable energy (solar, wind) generating equipment, devices, technological schemes and bases of design***".

The Laboratory is aimed at providing simulation of power generation and distribution in the smart solar systems.

The laboratory was arranged for Master students specialized in Electrical Engineering and Civil Engineering, with an option for broadening target groups in the future (eg: short courses for professional organizations of architects and so on).

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Laboratory activities are as follows:

Laboratory work No.1 Heliostation with effective mountainous landscape

Laboratory work No. 2 The landscape efficiency criteria. Statistics and estimated data.

Laboratory work No. 3 Solar panel arrays. Nodes and components

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პანელები და კომპონენტები

მზის სადგური 30 კვტზე ორღერძიანი თრექერით სამეურნეო ტერიტორიებისათვის წყალტუბოს რაიონის სოფელი მაღლაკი

ნრფივი აქტუატორი მცირე ღერძისათვის

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The laboratory works have been prepared by the Academic doctor who has experience in solar panels design

Equipment purchased within the project: 16 computers, projector, screen and monitor unit.

Software used: Energy 3D simulation-based engineering tool used for designing green buildings and power stations.

Free version available on the link: https://energy.concord.org/energy3d/

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Industry 4.0 in Georgia

In terms of enabling the implementation of Green Economy policy declared by the Government of Georgia, specialists will be trained for companies acting in the country, in particular for German manufacturer of solar panels – LLC AE Solar.

Also the production of electric vehicles is planned to be launched in the country in the near future

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