

Department of Applied Information Technologies

Testing, research and work with LoRaWAN equipment (access points and sensors)

Duration: 3 months

Supervisor: Professor Olga Dolinina

e-mail: odolinina09@gmail.com

Leading teacher: As. Professor Aleksandr Fedukin

Language of training: English

Audience: undergraduates, Master students

Initial skills:

- interest in Internet of Things (IoT) technology,
- ability to configure Wi-Fi access points,
- programming ability,
- minimal experience with network connections,
- minimum network administration experience.

Basic equipment:

LORAWAN network based on hardware and software of the IOT VEGA series.

Base station Bera BS-1.2. Computer with Internet access. Set of terminal devices:

- electric energy meter ЦЭ2726А R01;
- smoke detector Vega Smart-SS0101;
- Vega TP11 converter;
- Vega TD11 thermal sensor;
- network tester Vega TS11;
- Vega motion sensor Smart MS0101;
- Vega acceleration sensor Smart AS0101;
- Vega converter M-Bus-2;
- magnetic contact sensor Smart Smart-MC0101;
- Bega SI-21 impulse counter;
- Bega SI-11 impulse counter.

Topics to be covered during the internship:

- Setting up and working with LoRaWAN equipment in the laboratory.
- Deploying and configuring the LoRaWAN network, including initial server configuration, connecting the base station, connecting terminal devices to the network using the server administration program.
- Development of a mobile or web-interface for displaying and working with terminal devices of the network.

Place of the internship: laboratory of the Smart City & Internet of Things