

Microprocessor engineering

The course is designed to familiarize you with the use of microprocessor technology for professionals in the field of electrical networks and systems. It is based on the knowledge gained from previously mastered courses in the basics of electrical engineering, industrial electronics and computer science.

The current state of technology and technology is characterized by the widespread use of digital technologies in all areas of activity without exception. Therefore, the acquired knowledge allows to properly evaluate and use modern digital control systems or communications and will serve as a basis for further self education in this area.

The following will be studied:

- basic elements, typical units and blocks of microprocessors and microcontroller systems;
- information and algorithmic bases of digital and microprocessor technology;
- structure of microprocessors and microcontrollers;
- programming of microcontrollers and specific examples of systems based on them.

You can learn:

- analysis of processes and basic modes of operation of digital systems and microcontrollers;
- check the operation of microprocessor units and systems based on them;
- basics of programming microcontroller systems;
- solve various engineering problems related to the use of microprocessor technology.

Acquired knowledge and skills allow:

- technically competently assess the problems of functioning of digital control systems;
- understand the content of technical documentation;
- independently and effectively eliminate or solve situational problems of circuit and software nature.