Summary of discipline New Information Technologies in Instrument Engineering The program of the course "New information and wireless technology in instrument" made in accordance with the educational and vocational training programs for master, expert specialty 7.05100306 "Information technology in instrument." Academic discipline belongs to the series "Disciplines of independent choice of the institution."
The object of the course is
- Mastering future specialists in modern methods and principles of information, telecommunication systems;
- Capture current trends the use of information, telecommunication systems in the instrument.
The course is based on previously studied courses especially: databases, computer systems data transmission devices converting devices, fundamentals energy saving devices and systems in energy efficiency and others.
1. The purpose and objectives of the course
1.1. The purpose of discipline.
The aim of the course is to develop students' abilities:
- The use of modern tools of telecommunication systems in instrument;
- Analysis of the problem within existing computer technologies for solving problems;
- Determination of the correct method of computer studies for a specific task;
- Training of specialists (engineers, metrologists, researchers, academics) that would thoroughly possessed the basics of information technology in the design, construction and operation of devices and systems for measuring mechanical quantities.
1.2. The main objectives of the course.
Requires educational and professional program students after mastering discipline must demonstrate the following learning outcomes:
knowledge:
- Knowledge of information technology in instrument;
- Mastering real examples of modern advances in information technology;
- Ways of developing instrumentation combined with new information technologies ability, have the tools of information technology in the design of instrumentation and systems; algorithmic approaches to solving typical problems of design, technology, processing and analysis of measurement results and transfer them to a distance.
Experience: should link these knowledge and skills within an integrated system approach to ensure a high level of scientific and technological development of devices. The systems approach provides optimal decision making, including structural and circuit design using modern tools of computer engineering.