

**"...development and  
maintenance of modern  
instruments and systems:  
the measuring equipment  
of onboard complexes,  
diagnostic complexes  
of medical and general  
purposes,  
controlling devices  
for energy-saving  
systems..."**



## **INFORMATION PACKAGE**

**FACULTY OF  
INSTRUMENTATION  
ENGINEERING**

**Kyiv, 2023**

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**\*\*\* The information provided is current as of the 2023/2024 academic year.**

**Please note that minor changes may occur in the list of training specialties and educational programs/specializations for the next academic year.**



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# 1. COMMON DESCRIPTION OF THE FACULTY

**Faculty of Instrumentation Engineering (FIE)** trains specialists in the development and maintenance of modern devices and systems for various purposes: measuring equipment on-



board complexes, diagnostic complexes for medical and general household purposes, control devices for energy-saving systems, etc.

Students acquire extensive knowledge and skills in the use of modern methods of construction of high-precision devices with the use of a microprocessor and computer technology, computer-aided design, and computer graphics.

**FIE** graduates work at instrument-making enterprises of aviation and space profile, enterprises concerning the introduction of energy-saving technologies, on development and introduction of modern medical diagnostic, training and medical complexes, and transport and printing enterprises.

**FIE** is one of the largest faculties of the Igor Sikorsky KPI and the leading educational and scientific center of instrument making in Ukraine. 96 teachers employ in its four departments, including 14 doctors and 72 Ph.D.; about 1,500 full-time and 300 part-time students study in the entire list of instrument-making specialties.

For more than 40 years of its existence, the **Faculty of Instrumentation Engineering** of the Igor Sikorsky KPI has trained more than 11,000 specialists in the industry, education, and science, including more than 200 specialists for Bulgaria, Hungary, the Czech Republic, Slovakia, Poland, China, Germany, Vietnam, Cuba, Algeria, Moldova, Azerbaijan, Kazakhstan. Many of them became Doctors of Sciences and PhDs, winners of state awards, government officials, heads of educational and scientific institutions, joint-stock companies, enterprises, firms, and institutions. About 10 Ph.D. and doctoral dissertations were prepared and defended by **FIE** graduates from Mongolia, Jordan, Uzbekistan, and Bulgaria. Among the graduates of the faculty, there are- 23 doctors and more than 250 Ph.D.; some of them became government officials at the level of heads of departments of various ministries of Ukraine.



## 2. STRUCTURE

The **Faculty of Instrumentation Engineering** includes the following departments;

1. **Department of Instrument Design and Engineering;**
2. **Department of Computer-Integrated Optical and Navigation Systems;**
3. **Department of Automation and Non-Destructive Testing Systems;**
4. **Department of Information and Measuring Technology,**

as well as:

- Training laboratory for course and diploma design;
- Educational and Research Laboratory "Energy Saving Devices and Systems";
- Educational and Research Laboratory "Luch";
- Educational and Research Laboratory "Automated Control Systems and Design of Mechanical Processing Processes";
- Educational and Research Laboratory "Optical Electronic Systems";
- Educational and Research Laboratory "Automated Measuring Systems";
- Educational and Research Laboratory "Mathematical Methods and Modelling in Instrumentation".

## 3. EDUCATIONAL PROGRAMS

**Levels of higher education.** The training of students in **FIE** is carried out in three levels of higher education.

At the first level (Bachelor's course, I–IV academic years), the students acquire fundamental knowledge in physics, mathematics, mechanics, computer engineering, and special disciplines. During the fourth year, they prepare and defend the bachelor's thesis and acquire a bachelor's degree.

At the second level (Master's course, I–II academic years), students acquire relevant professional skills including laboratory practice. Applicants prepare and defend a master's theses and acquire a master's degree

The third educational-scientific level – postgraduate studies, I–IV academic years. Applicants defend their dissertations and they are awarded the educational qualification of Doctor of Philosophy (Ph.D.).

**Terms of training:** Bachelor – 4 years; Master (education-professional program) – 1.5 years; Master (education-scientific program) – 2 years; Ph.D. – 4 years.

Students trained in full-time and part-time forms of study.



**1. Department of Instrument Production and Engineering** trains specialists under the following Educational Programs:

Specialty	Educational Program	Levels of higher education		
		First	Second	Third
<b>174</b> Automation, Computer Integrated Technologies and Robotics	Computer Integrated Systems and Technologies in Instrument Making	Bachelor <i>EPP</i>	Master <i>EPP</i>	–
	Automation and Computer Integrated Technologies	–	Master <i>ESP</i>	Ph.D. <i>ESP</i>
<b>175</b> Information- Measuring Technologies	Metrology and Information- Measuring Technology	–	–	Ph.D. <i>ESP</i>

*Comment: EPP – Educational-Professional Program  
ESP – Educational-Scientific Program*

Training at the Department of Instrument Production and Engineering offers a comprehensive blend of classical engineering education and specialized instruction in automation, computer technology, and related software. The curriculum covers various essential topics, including:

- Automation and intelligent computer-integrated technologies and systems.
- Architecture and programming of industrial microcontrollers.
- 3D modeling and mechatronics.
- Software and hardware complexes for automatic process control systems.
- Computer-integrated medical systems and technologies.
- Technical means of automation.
- Software development in the fields of Industrial Automation Systems, Industrial Internet of Things (IIoT), CALS (Computer-Aided Acquisition and Logistics Support), and business process automation.

By combining these core subjects, students gain a comprehensive understanding of instrument production, engineering principles, and cutting-edge technologies in the automation industry.

The educational program is aimed to study new advances in information technology, modern computer design – CAD/CAM/CAE systems (AutoCAD, SolidWorks, Nastran,





Compass, ProEngineer, etc.), programming languages (Delphi, C++), mathematical modeling systems (MATLAB, Mathcad), and the basics of Web design by the future specialists.

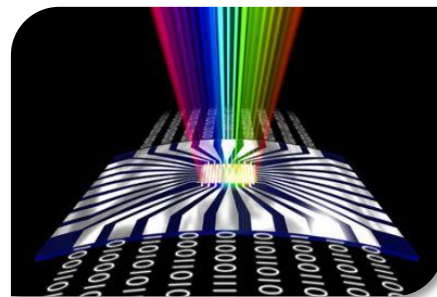
The department has its computer center and modern laboratories in major disciplines.

**2. Department of Computer-Integrated Optical and Navigation Systems** trains specialists under the following Educational Programs:

Specialty	Educational Program	Levels of higher education		
		First	Second	Third
<b>174</b> Automation, Computer Integrated Technologies and Robotics	Computer-Integrated Systems and Technologies in Instrument Making	Bachelor <i>EPP</i>	Master <i>EPP</i>	–
	Automation and Computer-Integrated Technologies	–	Master <i>ESP</i>	Ph.D. <i>ESP</i>
<b>175</b> Information- Measuring Technologies	Metrology and Information-Measuring Technology	–	–	Ph.D. <i>ESP</i>

*Comment: EPP – Educational-Professional Program  
ESP – Educational-Scientific Program*

Studying in the Igor Sikorsky KPI is a unique possibility of obtaining the state diploma of an educational institution with the highest level of accreditation in the field of creation of computer-integrated optical and navigation systems based on microprocessor technology, artificial intelligence technologies, computer, and information technologies.



The Department opened the French-Ukrainian master's program with a double diploma of the Igor Sikorsky KPI in the field of "Photonics and Optoinformatics". There is also a specialty "Physics. Photonics and optical engineering" opened in cooperation with the University of Le-Mann. Students participating in the program receive financial support from the Embassy of France in Ukraine.

During the course, students acquire knowledge of computer technologies, systems CAD/CAM/CAE (AutoCAD, SolidWorks, Nastran, Compass), programs for the development of electronic circuits (MicroCAP, Eagle CAD), programming languages (C++, Java, Processing), systems of mathematical modeling (Matlab, Simulink, MathCAD), Web-based



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design, complexes for design and calculation of optical and optoelectronic systems (Aber, VARIO, ASOK).

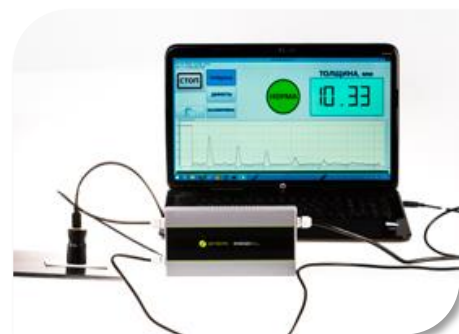
The department has its computer center and modern laboratories in the core disciplines.

**3. Department of Automation and Non-Destructive Testing Systems** trains specialists under the following Educational Programs:

Specialty	Educational Program	Levels of higher education		
		First	Second	Third
<b>174</b> Automation, Computer Integrated Technologies and Robotics	Computer-Integrated Systems and Technologies in Instrument Making	Bachelor <i>EPP</i>	Master <i>EPP</i>	–
	Automation and Computer- Integrated Technologies	–	Master <i>ESP</i>	Ph.D. <i>ESP</i>
<b>175</b> Information- Measuring Technologies	Metrology and Information- Measuring Technology	–	–	Ph.D. <i>ESP</i>

*Comment: EPP – Educational-Professional Program  
ESP – Educational-Scientific Program*

The Department focuses on the development and creation of advanced robotic and automated non-destructive testing and diagnostic systems (technical and medical), flow measurement systems, and energy-saving. Such systems combine the achievements of programming, machine learning methods, electronics, circuitry, mechatronics, and three-dimensional modeling.



Students receive modern higher education at a high level with the use of advanced IT technologies that allow designing mechatronic and robotic systems on a modern element base. The training is conducted by a friendly team, which combines the professionalism of experienced teachers and the energy of young scientists. During their studies, students can do internships abroad at universities in the United States, Germany, France, Greece, China, and Japan.

In the senior year or after graduation, young professionals get jobs in companies related to information technology and software development, and companies specializing in robotics, non-destructive testing, instrumentation, etc.



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The department has the following clubs: "ROBOTICS AND AUTOMATION" (scientific and practical), where students learn to construct printed circuit boards, solder modern chips, and print mechanical components of robotic systems with the use of a 3D printer; "IMAGE TECHNIQUE" (scientific) and "PHOTOGRAPHY" (socio-humanitarian), for those who are interested in photography and video shooting, lenses, cameras, various devices for obtaining images.

Students conduct interesting experiments and gain practical skills in the laboratories of transducers, complexes, energy-saving systems, acoustic, optical, thermal, and electromagnetic non-destructive testing.

**4. Department of Information and Measuring Technologies** trains specialists under the following Educational Programs:

Specialty	Educational Program	Levels of higher education		
		First	Second	Third
<b>175</b> Information-Measuring Technologies	Information-Measuring Technologies	Bachelor <i>EPP</i>	Master <i>EPP</i>	–
	Metrology and Information-Measuring Technology	–	–	Ph.D. <i>ESP</i>

*Comment: EPP – Educational-Professional Program  
ESP – Educational-Scientific Program*

The graduation of bachelor's and master's degrees at the Department of Information and Measuring Technologies is focused on preparing students for professional research, development, pedagogical, management, and innovation roles in the field of metrology. The curriculum covers a wide range of essential topics, including:

- Development of modern computerized measuring instruments.
- Quality control and evaluation, standardization, and certification processes.
- Development, testing, and operation of computer systems, including methodologies, algorithms, and software, for gathering information about the properties and condition of objects.
- Planning and conducting scientific and technical experiments.
- Testing and research of samples of new equipment and technologies.





- Project and program management in the area of material and intangible production.
- Technical expertise for assessing and ensuring compliance.
- Control, diagnosis, and prediction of the state of technical, biological, and natural objects.
- Development and implementation of advanced measurement and information technologies for processing data obtained during measurements.

By covering these diverse areas, students are equipped with the necessary skills and knowledge to excel in various fields related to metrology, making them valuable contributors to the advancement of technology and industry.

The training course provides the study of programming, computer technology, electronics, and information measurement technologies for the development and operation of computer measurement systems, research, and comprehensive testing of complex objects.

## 4. TRAINING AND LABORATORY BASE

At the **Department of Instrument Design and Engineering** students study:

- MatLab&Simulink – modeling of mathematical models and processes;
- MathCAD – mathematical calculations;
- LabVIEW – a development environment and platform for executing programs created in the graphical programming language "G";
- C++, C# – object-oriented programming language;
- SolidWorks – CAD software system for automation of industrial enterprise operations at the stages of design and technological preparation of production;
- CATIA – a computer-aided design system for three-dimensional modeling and real-time teamwork
- CREO, Pro/ENGINEER – complex systems including CAD/CAM, PDM, PLM, CAPP, CAE, which implement automated design from concept to production in one program.
- Ansys, MSC Nastran, Femap – systems of computer engineering analysis by finite element method.



Students have at their disposal the following well-equipped training laboratories:

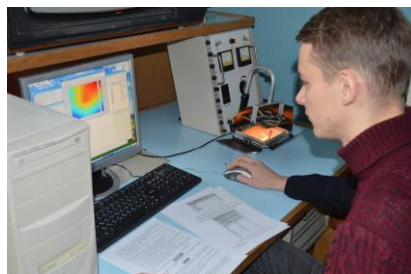
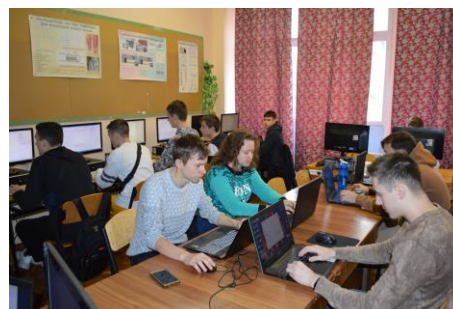
- Laboratory of Technology for the Manufacture of Parts, Assembly, and Testing of Devices;
- Laboratory of Automation of Production Processes and Systems;



- Laboratory of Modeling, Optimization, and Automated Design of Technological Processes and Systems;
- Laboratories of Coherent Optics and Holography;
- Laboratory of Biomedical Engineering;
- Laboratory of Medical Devices and Systems.

The **Department of Automation and Non-Destructive Testing Systems** teaches special disciplines in the following classrooms:

- Multimedia lecture halls;
- Multimedia laboratories of computer technologies (computer classes, laboratory of robotic systems, laboratory of electronics and microprocessor technology);
- Laboratory of automated measuring systems;
- Laboratory for the study of converters of physical quantities;
- Laboratory of energy-saving systems;
- Laboratories of acoustic, optical, thermal, and electromagnetic non-destructive testing.



Features of training at the **Department of Automation and Non-Destructive Testing Systems**:

- During their studies, students master programming by learning C++, Python, Java, learning to create programs for robots' control, and performing data analysis and visualization.
- To develop artificial intelligence and computer vision systems, students learn Deep Learning techniques using the Keras and Tensorflow libraries.



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- Arduino, Raspberry Pi, and STM32 Nucleo projects are used to program robotic systems.
- With Multisim and Altium Designer, students learn to model complex electronic devices and create printed circuit boards.
- Through in-depth study of electronics, future specialists can develop basic electrical diagrams of robot control systems and automated systems, computerized non-destructive testing systems, and algorithms for their operation.
- Using SolidWorks, CATIA, Ansys, Comsol Multiphysics, and AutoCad, students perform three-dimensional modeling of structures and mechanisms of robotic systems, create graphical drawings of devices and sensors, and develop energy-saving systems.
- Students learn to create the latest robotic and diagnostic systems, model their work in different modes, mastering the development environment of LabView.
- Students perform computer modeling of complex processes and systems with the help of specialized mathematical packages ADAM, Mathcad, and MATLAB.



**The Department of Computer-Integrated Optical and Navigation Systems** is equipped with the following laboratories and classrooms:

- Laboratory of Orienting and Navigation Tools;
- Laboratory of Microelectromechanical Devices and Systems;
- Laboratory of the course "Wave Optics";
- Laboratory of the course "Applied Optics";
- Laboratory of the course "Optoelectronic Devices";
- Laboratory of the course "Optical and Optoelectronic System Testing";
- Laboratory of the course "Optical Measurements";
- Computer classes;
- Laboratory of microprocessor technology.



In the lab course "Optical Measurements," there is a research group focused on photometric studies. This group conducts research work led by students from the Department on the subject of "Methods, Means, and Metrological Assurance of Measuring Energy Characteristics of Multielement Detectors and Devices based on





At the **Department of Computer-Integrated Optical and Navigation Systems** students study:

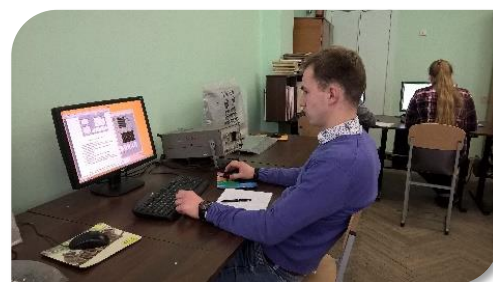
- C ++, Java, Processing – programming languages;
- Keil uVision, Arduino IDE – environments for programming microcontrollers;
- Matlab, Simulink – powerful tools for building and researching mathematical models;
- SolidWorks – an innovative complex of CAD for design and modern automated production with extensive opportunities for interaction between developers, and integration of modules for various purposes;
- ANSYS – a universal system of finite element analysis, which is quite popular with specialists in the field of automated engineering calculations;
- NI LabVIEW – a graphical programming environment from National Instruments, in addition to simple application development allows you to easily interact with modern microcontrollers and measure devices based on them.

During the learning process teachers use the following **applications**, which were **specially designed** by the Department:

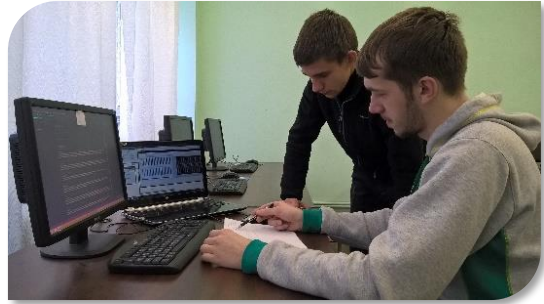
- "Aber" – for computer-aided design of optical systems;
- "Ray" – for aberration analysis of optical systems;
- "VARIO" – for calculating the two-dimensional and three-lens, mirror, and mirror-lens optical systems of zoom with optical image plane shift compensation;
- "Condenser" – for the calculation of one-, two- and three-lens condenser;
- "ASOC" – for aberration synthesis one-, two- and three-lens glued and unglued optical components;
- "Radius" – to find the default values of the radii of the spherical surfaces of optical components;
- "Tele" – for calculating the dimensional telephoto lenses, etc.

**Department of Information and Measuring Technologies** has a modern training and research computerized laboratories, connected by two local Ethernet networks with access to the Internet, namely:

- Research Laboratory of Measuring Converters;
- Training Laboratory of Fundamentals of Metrology and Measurement Engineering;
- Research Laboratory of Automation of Metrological Testing of Experimental Informatics;
- Laboratory of Information Technologies in Distance Learning;



- Research Laboratory of Measurement Systems for Multidimensional Processes and Field Physics;
- Non-electric Measurement Research Laboratory;
- Research Laboratory for Measurement of Electrical and Magnetic Values;
- Training Laboratory for Technical Mechanics and Appliance Design;
- Research Laboratory of Measuring Diagnostic Systems;
- Educational and Research Laboratory of Microprocessor Engineering and IMS Digital Measurement Converters;
- VDSPL Motorola Digital Signal Processor Virtual Laboratory – certified digital signal processing laboratory with the status of "Motorola Authorized Semiconductor Sector Laboratory for Teaching Students and Professionals in Microprocessors, Microcontrollers, and Digital Signal Processors".



Workplaces in the training laboratories created with the sponsorship of firms are the following:

### ***Motorola***

- HC11 / 12 microcontrollers (12 workplaces)
- PowerPC microcontrollers (12 workplaces)
- 68000 microcontrollers (6 workplaces)
- DSP 56000 microcontrollers (8 workplaces)

### ***National Instruments***

- LabView (10 workplaces): an introduction to LabView; development of virtual devices in the LabView environment; development of information-measuring systems based on virtual devices; study of metrological characteristics of information-measuring systems.

### ***Infopulse***

- NXP LPC/ARM + Embedded Internet DM9000 (10 workplaces)

### ***Texas Instruments***

- TMS320C67 13 DSP Starter Kit (10 workplaces)





The level of laboratory equipment allows to carry out research works at the present level according to the plans of preparation of masters, graduate students, and doctoral students. The material and technical base is constantly updated taking into account the needs of research tasks, which are solved by the scientists of the department, graduate students, and students.



## 5. RESEARCH ACTIVITY

***Department of Instrument Design and Engineering*** research in the following directions:

- Mathematical methods of modeling and optimization of parameters and systems of automated instrument-making production;
- Creation of intelligent systems of automated production in instrument making;
- Development of automated systems of technological preparation of production;
- Creation of laser optoelectronic, vibroacoustic and electromagnetic systems for diagnostics, quality control, and management of device production;
- Study of the impact of laser and acoustic radiation on biostructures and the creation of medical treatment systems based on them;
- Creation of microprocessor specialized complexes in medicine.

Department has three research and teaching areas:

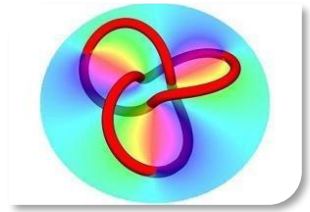
- Mathematical modeling and optimization of technological processes and systems in instrument making;
- Construction of systems for diagnosing the condition of technological equipment, control, and management of product quality;
- Creation of medical-diagnostic systems based on biophysical interactions in cellular structures of living organisms.

***Department of Computer-Integrated Optical and Navigation Systems*** research in the following areas:

- Algorithms and software for traffic control systems, information processing, and status recognition of complex technical systems, are guided by incomplete and inaccurate information about their status.
- Cyberphysical objects – intelligent multi-purpose autonomous moving objects;
- Autonomous and integrated orientation and stabilization systems, inertial navigation systems, algorithms, and software;



- Manipulators for computerized complexes of technical and medical applications.
- On-board optoelectronic space-based systems;
- Ophthalmic devices and systems;
- Digital television and thermal television recognition and surveillance systems;
- Optoelectronic systems for minimally invasive clinical medicine;
- Digital optical microscopy;
- Methods and means of automated design of optical systems;
- Singular optics;
- Control and measuring equipment to determine the characteristics of optical and navigation devices and systems;
- Methods, means, and metrological support for measuring the energy characteristics of many elemental radiation receivers.



**Department of Automation and Non-Destructive Testing Systems** performs research activities in the following directions:

- Methods of controlling the stress and fatigue of structural materials;
- Acoustic and eddy current flaw detection;
- Development of gravimetric instruments and measurement methods;
- Research and development of energy-saving devices and methods;
- Ultrasound methods and devices for medical diagnostics;
- Development of precision meters of magnetic and electric fields;
- Electrical methods of searching for minerals;
- Internet of Things;
- Automation of management processes;
- Systems of artificial intelligence and computer vision for the needs of automation of non-destructive testing and diagnostics;
- Research and development of the thermal method of non-destructive testing;
- Computer modeling of physical processes, and electronic devices;
- Design of three-dimensional models of elements of robotic systems;
- Development of intelligent instruments and devices of measuring systems;
- Development of methods to improve the quality of training of specialists in non-destructive testing and technical diagnostics;
- Development of intelligent weighing instruments and systems;



- Digital processing of signals of measuring transducers of diagnostic systems.

**The Department of Information and Measuring Technology** carries out investigations in the following areas:

- Theoretical foundations of experimental informatics;
- Methodology for building intelligent measuring, control, diagnostics, and expert systems;
- Information-measuring systems, complexes, and fundamental-measuring converters;
- Television information and measuring systems;
- Methods and systems of control and diagnostics;
- Devices and systems for measuring the characteristics of random signals, measurement methodology;
- Study of electric and magnetic fields;
- Internet metrology;
- Theory of commuting sets;
- Metrology in nanotechnology;
- Metrology and measurement information technologies in distance education, research on monitoring and quality assessment of distance and local testing;
- Scientific and practical principles of information and metrological support for the implementation of technological processes in agricultural production.
- Methods and means of improving the accuracy of the AC voltage measurement;
- Methods of reproducing the AC voltage unit;
- Metrological support of experimental research;
- Harmonization of national standards with international and European standards;
- Methods and systems for monitoring and diagnostics;
- Methods and software in information technology;
- Digital signal processing;
- Stability study of components of measuring equipment;
- Computer-based ultrasonic non-destructive testing systems;
- Computer systems for electromagnetic field studies;
- Telemetry systems for aircraft testing.



## 6. INTERNATIONAL PROJECTS AND COLLABORATION

The ***Department of Instrument Design and Engineering*** maintains international relations with technical universities in the United States, Korea, Poland, Germany, France, Austria, Sweden, Norway, Slovakia, Bulgaria, Iran, Turkey, and others.

Employees and students of the department took part in scientific conferences and seminars held in Poland, Bulgaria, Slovakia, Serbia, Bosnia and Herzegovina, Belarus, Georgia, and others.

Teachers of the department are members of the editorial board of the International Scientific Advisory Committee (UK), the Bulgarian Society for Non-Destructive Testing (BGSNDT), the working group "Centrum Ukraińsko-Polskie" Narodowego Uniwersytetu Technicznego Ukrainy „Politechnika Kijowska imienia Igora Sikorskiego”,

The Department collaborates with the engineering and research company Tucana Engineering Warsaw, LLC, Warsaw (Poland), and with the Technical University of Dresden (Germany) in the framework of the research project Tomographische Messung des Brechungsindex mit einer adaptiven faseroptischen Zelle (TAROT).

**Department of Computer-Integrated Optical and Navigation Systems** supports international scientific relations with the Technical University of Dresden, Heidelberg University, University of Bremen, Kirchhoff Institute for Physics (Germany), Instituto Tecnológico de Puebla (Mexico), the Optical center in Juhani (China), University of Amsterdam (Netherlands) Belarusian State University, the European representative offices of firms "the Altera" and "Texas Instrument" (USA).



The department staff took part in scientific conferences of the CIS countries, the USA, England, and Germany on automation.

In 2011 the Department opened the French-Ukrainian master's program of receiving two diplomas: Ukrainian the Igor Sikorsky KPI and the European Université du Maine on Photonics and optoelectronic instrumentation. The program is open to graduates of higher educational institutions in Ukraine with the qualification of a bachelor in optical technology.



**Department of Automation and Non-Destructive Testing Systems** is a member of the World Federation of NDT centers and has close relations with universities in the USA and Germany. Scientists of the Department regularly take part in conferences on energy-saving, the Internet of Things, nondestructive testing, and diagnostic held in Ukraine and abroad. Members of the Department presented their reports at scientific conferences in the USA, Czech Republic, Germany, Bulgaria, Sweden, China, etc.

Teachers of the department are members of the Bulgarian Society for Non-Destructive Testing and can conduct joint events and exchange information.



The Department collaborates with:

- Universität Würzburg – University Würzburg (Germany) in the sphere of nuclear magnetic resonance, and magnetic resonance imaging.
- Federal Institute for Research and Testing of Materials (Berlin, Germany) in the simulation of the processes during the radiographic testing of materials.



The **Department of Information and Measuring Technology** maintains direct contacts with the TH Mittelhessen University of Applied Sciences (Gießen, Germany), the Technical Universities of Munich and Trieste, the University of the Bundeswehr, the Zittau / Horlitz University, cooperates with well-known domestic and Western companies "National Instruments", "Analog Devices", "Hewlett Packard", "Rohde & Schwarz", "Siemens", "Motorola", "Melexis", "Infopulse", "Promsat". It allows to study and use the advanced world technologies, provides participation of foreign experts in the course of training of students, and an exchange of students, teachers, and experts.



The department actively cooperates with the International Association for the Exchange of Students for Technical Experience (IAESTE): every year the best students of the department undergo technological and undergraduate internships in Germany, the USA, Spain, Italy, Greece, Great Britain, Switzerland, France. Students from universities in Great Britain, Denmark, Germany, Sweden, Italy, Switzerland, and Finland are trained at the department.





## 7. CONTACT INFORMATION

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