

APPROVED

Dean of the Radio Engineering
Department of NTUU “Igor Sikorsky
KPI”

_____ Antypenko R.V.

_____ 2016

STATUS
of the International Scientific Conference
Radio engineering fields, signals, devices and systems

Approved by Radio Engineering
Department of NTUU “Igor Sikorsky KPI”
Protocol of 25.11.2013, no.11/2013
Chairman of the RED

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_____ 2016

NTUU “Igor Sikorsky KPI”

2016

1. General provisions

1.1. The founder and organizer of the international scientific and technical conference «Radio engineering fields, signals, apparatus and system» (here in after-Conference) is the Radio Engineering Department (RED), National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute» (NTUU “Igor Sikorsky KPI”), which organizes its conduct and publication of related materials.

1.2. The Conference is held once a year.

1.3. The Conference participants may be citizens of Ukraine and other countries which have appointed in accordance with established rules for materials that meet the programme objectives of the Conference and pay the organizational fee in accordance with the procedure established by the Conference organizers.

1.4. Languages of the Conference – Ukrainian, English and Russian.

1.5. On the recommendation of the Program Committee for the Conference and the desire of the authors presented at the Conference the results of scientific research can be published in the digest of scientific papers of “Bulletin of the National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”. Series Of Radiotechnics. Radio apparatus building”– specialized edition in the field of technical sciences.

2. The purpose and objectives of the Conference

2.1. The main objective of the Conference – presentation and discussion of scientific and technical achievements, fostering creativity professionals engaged in research, design, manufacture and operation of radio-electronic devices, devices and systems, as well as the exchange of scientific and practical pedagogical experience apparatus specialized teacher on these and related issues.

2.2. The Conference addressed the task of creating a discussion field to test specialists from the scientific, technical and practical results in radio engineering and related fields; discussion on modern methods and tools for teaching technical subjects in radio engineering and related fields.

3. Organization of the Conference

3.1. The Organization and holding of the Conference are executed by institutional and policy committees.

3.2. The Organizing Committee for the Conference is made up of members of RED NTUU “Igor Sikorsky KPI”.

The Conference Organizing Committee is held annually by the Dean’s RED order and displayed in the Conference materials.

The competence of the Organizational Committee includes organizational issues related to the Conference, the development and publication of related materials (newsletters, program, abstracts, etc.).

3.3. The Programme Committee for the Conference is made up of leading scientists and specialists working in NTUU «Igor Sikorsky Kiev Polytechnic Institute», and in other educational establishments and scientific institutions of Ukraine and foreign countries.

The Conference Program Committee is headed by Dean RED.

The Conference Program Committee is established annually by the Dean of the RED and displayed in the Conference materials.

The competence of the Conference Program Committee is the definition of scientific and technical value of the materials, their conformity with the objectives, goals and themes of the Conference, the desirability of publication of the material in the journal «Bulletin of the National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute «Series - Radiotechnics. Radioapparatus building»».

4. The order of the Conference

4.1. The Conference is held with using modern information technology. Information on arrangements for the Conference is hosted on the site of the RED in a separate section (or on a separate site). Discussion box is created in the virtual space, by placing the participants in the Conference materials at the site. In this virtu-

al space created conditions for the exchange of researchers and specialists opinions, questions/answers, additional information, etc., Start and duration of the discussion in the Conference information materials.

Each participant in the discussion is given the opportunity to get an electronic version of the Conference materials (program book) directly from the site of the Conference.

4.2. For the convenience of the Conference participants' discussion field is structured by allocating individual thematic parts (sections). Each section is headed by a leader from among the members of the Programme Committee and responsible Secretary from among the members of the Organizational Committee. Director and Executive Secretary of the section appointed by the Dean of the RED order that is displayed in the Conference materials.

To address the institutional and programmatic committees of the Conference discussion box or its thematic section can be created in both the virtual and real space, which is displayed in the Conference materials.

4.3. In the framework of the Conference are the following sections.

Section 1. Radiotechnical circuits and signals. Computing methods in radio electronics. Methods and algorithms of analysis and synthesis of linear, arcwise-self-reactance, nonlinear circuits; synthesis and analysis of optimal and quasi-optimal algorithms of detection, distinction, estimation of unknown parameters and filtration of signals; adaptive methods of overcoming of a priori vagueness are at treatment of signals in the radiotechnical systems of the various destination; computing methods and algorithms of signals' treatment.

Section 2. Design, technology and operation of electronic equipment. Ultrasound equipment. Methods and tools of the designing electronic equipment, including solving of schematic, designing and technological problems, automatical design systems, methods and tools for the maintenance of quality the electronic equipment and maintaining its functioning during operation/exploitation. Design and application of technological ultrasonic devices.

Section 3. Theory and practice of radiomeasuring. Methods and facilities of measuring of signals' parameters in the range of radio frequencies. Technical decisions concerning measuring of physical sizes in various spheres with the use of signals of radio frequency and microwave range. Features of construction of radio-metering facilities of the different destination.

Section 4. Electrodynamics. Devices of the super-high-frequency range and aerial equipment. Electromagnetic theory; nature of electromagnetic waves; electrodynamics of environments; meta-materials; tasks of reflection and diffraction; directive structures and resonators; numeral methods in an electrodynamics; radio waves in the natural conditions; nonlinear tasks. Theoretical principles of design of aerials and microwave devices; methods of analysis and synthesis, structural and technological features of realization of aerials and microwave devices.

Section 5. Telecommunication, radio-location, navigation. Principles of construction, analysis and synthesis of radiotechnical devices, systems, programmatic-hardware complexes; use of radiotechnical devices and systems for the solution of connection tasks, management, detection and authentication of objects and so on.

Section 6. Radio electronics of biomedical technologies. Technical decisions concerning methods and facilities of medico - biologic diagnostics and treatment; descriptions of new devices, procedures, methods, technologies; research results of interaction of the electromagnetic fields and radiations with physical and biological objects.

Section 7. Microelectronic technology. Functional and nano electronics. Phisico-technical and structurally-technological principles micro-, functional and nano electronics. Progress trends. Micro- and nanoelectronic devices.

Section 8. Information protection. Problems of development of normative and methodical bases of the systems of information protection; metrology providing of the systems of technical information protection; standardization, certification and test of facilities of technical information protection; providing of computer security in state, bank and other information systems; providing of information protection in

communication networks; technical means of the system of information protection; cryptography.

Number and subject sections annually specified in the informational materials Conference.

4.4. For each section is allocated a separate sector of discussion field.

4.5. Separate reports at the request of the authors of the Conference and in accordance with the decision of the program Committee are placed in a special (plenary) sector of the discussion field.

4.6. The Chief coordinates the work of the members of the program Committee of the Conference on appropriate destination in part determine the scientific value of the materials submitted by the participants, whether their posting in the discussion box, published in the journal of the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute". Series Of Radiotechnics. Radio apparatus building, if necessary, participate in discussions, accompanies its review and other materials.

4.7. Executive Secretary section carries out the work related to the deployment of the related Conference materials in the discussion box, controls the conformity requirements form submissions and correspondence (through the responsible Secretary of the Conference) with the sponsors of the Conference.