

<p style="text-align: center;">Area of study 11.04.02 Information and Communication Technologies and Systems Program “Radio Engineering and Communication Systems and Devices”</p> <p>Degree: Master Duration of training: 2 years Form of education: full-time Language of education: Russian Start of education: 01.09.2020 г. Location: Rostov-on-Don, Zorge street 5, Southern Federal University, Faculty of Physics, Department of radio physics.</p>	<p style="text-align: center;">Program description :</p> <p>The program is aimed at in-depth training of masters in the field of scientific and technical development of radio-electronic elements and devices for radio communication systems operating in different frequency ranges for exchanging information at significant distances using various network structures, telecommunication equipment, multidimensional digital signals and digital information processing.</p> <p style="text-align: center;">Program structure:</p> <p>The program consists of 3 units. Unit 1 includes the basic disciplines. Unit 2 contains academic research work and various practical trainings (research scientific and pre-graduation). Unit 3 - state final certification, including defense of the graduate qualification work.</p> <p>Basic courses: 1. Modern methods of digital signal processing. 2. The theory of building information and communication systems and a network 3. Radio-electronic systems for special purposes. 4. Microcontrollers and microwave devices in radio communication systems. 5. Quantum optics and quantum informatics in communication systems. 6. The theory of electromagnetic compatibility of electronic devices and systems. 7. Methods of modeling and optimization. 8. Mathematical and</p>	<p>Careers:</p> <p>The graduates will be able to work as: developers of modern telecommunication systems, radio communications, radar, radio navigation, radio monitoring, direction finding, radio control and other radio equipment; network designers and developers; communications engineers, digital signal processing specialists; IT department specialists at enterprises, research institutes and design bureaus of the military-industrial complex; cellular companies; information technology companies; in engineering companies.</p> <p>Contacts of the program director:</p> <ul style="list-style-type: none"> - <i>Dmitry S. Gubsky</i> - <i>Candidate of Sciences</i> - <i>tel.: +7(863) 218-40-00 ext. 11456</i> - <i>e-mail: ds@sfedu.ru</i> - <i>WoS/Scopus ID R-9760-2016/6506292035</i>
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instrumental decision-making methods. 9. Special digital circuitry. 10. Optical communication lines. 11. Laser sources for infocommunication technologies.

Research areas:

- communication networks and switching systems;
- multichannel telecommunication systems;
- telecommunication optical systems and networks;
- radio communication systems and devices;
- intelligent networks and communication systems;
- basic methods for building infocommunication networks for various purposes.
- satellite, radio relay and ionosphere communication systems;
- wired communication systems.

