| Program name | Master’s degree program  
Electronic systems and devices for location, navigation and control |
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<td>Key facts</td>
<td>The program is for students with experience in the development and design of radio electronic equipment for various purposes and for those, who want to pursue a career in the field of radio electronic equipment. The program is aimed at developing research skills among students in the design, development, production and operation of electronic devices. Students will follow all stages of the research process from setting a problem to achieving and analyzing experimental results and introducing radio electronic equipment into production. Since the program is focused on the development of practical skills, students work in modern and well-equipped laboratories of the School of Engineering Physics and Radio Electronics, Siberian Federal University, as well as at the premises of Radiosvyaz, JSC.</td>
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<td>Program length</td>
<td>2 years</td>
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<td>Starting date</td>
<td>September, 1st</td>
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<td>Language of instruction</td>
<td>Russian</td>
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| Prerequisites | • Higher professional education (bachelor’s, specialist’s or master’s degree)  
• Entrance exam in General Physics  
• preference is given to students who have publications in this or related areas, as well as to students, previously participated in creative contests and (or) olympiads of the corresponding field of study |
| Tuition fee per year | 181 856 roubles (~ 2,448 USD) |
| Program leader/team | Head of Department  
Head of master’s degree program:  
Andrey Grebennikov  
Cand.Sc. (Engineering), assistant professor  
Head of the Specialized Department of Radio Electronic Equipment of Information Systems, School of Engineering Physics and Radio Electronics, Siberian Federal University |
| Qualification | Master of Science |
| Skills/ objectives | - determining the area of research work, analyzing and summarizing their results, issuing recommendations for their practical application;  
- carrying out mathematical modeling of processes and systems, both using standard modeling tools and using specialized computer models;  
- testing systems and devices;  
- carrying out theoretical and experimental research in order to find principles and ways to create new electronic means and electronic systems  
- conducting a patent search for existing technical solutions for the development of electronic equipment  
- analysis of compliance of requirements for electronic equipment with the requirements of regulatory documents  
- development of measures to improve the operation of radio electronic systems  
- organization of research, design, engineering work. |
| Curriculum | Project management,  
Philosophical problems of science and technology,  
Professional English,  
Business English,  
research seminar,  
Radiotechnical information transmission systems, |
| Theory and technology of radar and radio navigation,  
| Signal generating and conditioning devices,  
| Signal receiving and processing devices,  
| Optimization methods,  
| Modern technologies in instrument making,  
| Signal synthesis and processing,  
| Navigation and information systems,  
| System-on-a-chip design,  
| Mathematical models in signal processing tasks,  
| Organization of development and production of radio electronic equipment,  
| Immunity of satellite communications and navigation equipment,  
| Special issues of processing radio navigation signals,  
| Collection and processing of information,  
| Network information technology,  
| Measurement errors and methods of their compensation |

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