

**MINISTRY OF EDUCATION AND SCIENCE
OF THE RUSSIAN FEDERATION ST. PETERSBURG STATE
ELECTROTECHNICAL UNIVERSITY «LETI»
OF V. I. ULYANOV (LENIN)»**

Approved by:
Vice Rector for Academic Affairs
Pavlov V.N.
«  2016

WORKING PROGRAM

discipline

« TRAINING PRACTICE »

Field of Study:

09.04.01 – «Computer science and engineering»

Master's Program:

«Computer science and knowledge discovery»

(in English)

Saint – Petersburg

2016

PRACTICE STRUCTURE

Curriculum №:	500
Providing faculty:	Computer Science and Technology
Providing department:	Computer Science and Engineering
Total workload (credit points)	8
Year of study	1
Term	1

Classes types

Individual work (academic hours)	288
Total (academic hours)	288

Intermediate attestation type

Graded test (term)	1
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Practice type: practice for obtaining primary professional skills and experiences.

Practice format: onsite, field.

Practice mode: discrete.

The working program is discussed at meeting of chair of Computer Science and Engineering 22.03.2016, the protocol № 2.

The working program is approved by the educational and methodical Commission of the Faculty of Computer Science and Technology 24.03.2016, the protocol № 3.

SUMMARY

TRAINING PRACTICE

During educational practice the student must meet with the planning processes, the preparation, organization and execution of the research work, as well as methods of processing the results. In the process of educational training students learn to formulate scientific problem, to review and to compare the methods of its solution. One of the results of the practice should be well-designed reports on the results of scientific research.

PRACTICE PURPOSES AND TASKS

1. Studying of research conduction technologies, mathematical modelling basics with standard software application. Acquisition of the required knowledge for applied and scientific problems formulated on the graduation thesis topic.

2. Skill development in the field of acquisition, processing and systematization of science and technology information related to planned research; strategies and tool choice for the stated problem solution; assignment preparations for actuators.

3. Mastering of parallel and distributed applications development methods. Ability to participate in the development of software systems for various purposes.

Competency set developing during practice is listed in the competency matrix, appended to Basic Educational Program.

PRACTICE PLACE IN BASIC EDUCATIONAL PROGRAM STRUCTURE

The training practice is carried out based on the knowledge and skills obtained as a result of previously mastered curriculum disciplines:

1. Computational systems;
2. Intelligent systems

and provides study of the following disciplines:

1. Software development technology;
2. Digital signal processing,

Also, it is aimed to reinforce mastered professional knowledge and skills of self-conducted scientific-research, engineering and managerial work during educational process.

PRACTICE CONTENT

The main goal of the training is expansion of professional knowledge acquired by master's students during educational process and development of self-conducted scientific research and managerial work skills.

Study training is aimed at skill acquisition with various software and choosing methods for production problems in specific situations; acquaintance of students with various programming languages; development of skills and abilities for self-conducted research and various kinds of problems solution through the use of programming tools together with other types of software; improvement and reinforcement of theoretical knowledge concerning computer technology basics; development of future masters skills and abilities allowing them to use modern mathematical methods and tools for science, technology, economics and management problems and usage of distributed information technologies in engineering, management and financial activities; corporate culture cultivation; development of creative thinking, passion to self-education and necessity of constant profession skills self-improvement in the field of applied mathematics and informatics; study of information technologies in various institutions and firms, best practices and innovative approaches.

Training is held on the basis of contract relations in external companies (factories, firms) in respect with the field of study program or graduating departments and other university scientific subdivisions. Workspace for individual work is organized in subdivisions.

Training content is determined by graduating departments on the basis of federal higher educational standard with consideration of subdivisions (bureaus, laboratories, scientific groups, etc.) interests and capabilities where the one is held. Student's work content is specified during practice by subdivision's head-office and is reflected in the individual training.

Training timeframes and duration are settled in accordance with curriculums and annual academic schedule. During training students obey all internal rules of conduct and safety instructions in a subdivision and at the workplace.

TRAINING REPORT FORMAT

Main practice reporting formats are written report, presentation and oral report.

In accordance with the template approved by ETU "LETI" the written report must be prepared by the student at the end of training. The written report includes solutions with description and presentation of experimental and estimated data.

Training supervisor gives reference on the students work and approves written report with further report submission to the head of practice from graduating department.

Attestation of training results is held by the committee appointed by the head of department. The committee must include practice supervisor of department and at least two department professors.

Attestation is held on student's oral report based on the practice results, practice supervisor reference and presentation.

Attestation results is assessed by five-point grading scale (graded test)

ACADEMIC AND METHODOLOGIC PRACTICE PROVISION

Practice related list of the basic and additional study literature

№	Title, bibliographical entry	Term	Items num. in library (at dpt.)
Basic literature			
1	Perfomance and execution of final qualifying works [Electronic resource]: St. Petersburg State Electrotechnical University "LETI"; auth.: V.B. Viktorov, A.A. Lyamkin. - 2 nd ed., revised — Spb.: Publ. St. Petersburg State Electrotechnical University "LETI", 2013 (CD-ROM).	1	The e-Learning Resource Base of Electronic Informational and Educational Environment of St. Petersburg Electrotechnical University "LETI"
2	Y.N. Novikov Preparation and defence of master`s theses and undergraduate works [textbook]. 3d ed. Spb; M.; Krasnodar: Lan`, 2015.-29 p.	1	48
Additional literature			
1	A.L. Foote Oral Exams: Preparing For and Passing Candidacy, Qualifying, and Graduate Defenses. Academic Press;2015.-204 p.	1	Het(1)

The head of the study literature department

Kiseleva

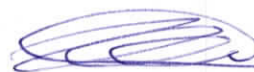
T.V.Kiseleva

05.12.18

ENDORSEMENT LIST

Developer

PhD, Ass. Prof.



D.M. Klionskiy

Reviewer

PhD, Ass. Prof.



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M.S. Kupriyanov

Dean of the faculty

Dr. of Sci., Prof.



M.S. Kupriyanov

Approved

Head of the Academic department

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A.Y. Gryaznov

RECORD OF REVISIONS

№	Date	Change	Meeting date of the Academic and Methodical Council, Protocol №	Author	Head of methodical department
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