TECHNICAL UNIVERSITY OF SOFIA

APPROVED

RECTOR:
(prof. DSc eng. Ivan Kralov)

Date:

Educational degree:	**Master of Science**
Professional qualification:	**Master engineer**
Period of study:	**1 year, 2 semesters**
Type of study:	**regular**

QUALIFICATION CHARACTERISTICS
of a master engineer in the specialty

specialty **"Computer systems and technologies"**
Professional direction: **5.3. Communication and computer technics**

for graduated form educational degrees BSc and/or MSc in professional directions: 4.1 Physics; 4.5 Mathematics; 5.1. Mechanical engineering; 5.2 Electrical engineering, Electronics and Automation; 5.4. Power engineering; 5.5. Transport, naval and avio engineering; 5.7. Architecture, building and geodesy; 5.10. Chemistry; 5.11. Biotechnologies; 5.12. Food technologies; 5.13 Common engineering; 9.1. National security; 9.2. Military

1. Educational purposes

We are witnessing the comprehensive and widespread entering of information technologies in our lives. This raises the question of creating highly qualified specialists in this field. These specialists must be familiar with modern computer systems, computer networks, modern programming languages, environments and databases in order to be able to meet today's tasks.

The CST master's course is oriented toward the specifics of computer engineering, including a variety of modern software and hardware disciplines.

2. Knowledge and skills required for successful professional activity

The CST master's course includes lectures, laboratory exercises and course assignments and projects. It is oriented towards improving the knowledge of students in specific areas of professional realization in the field of ICT. The realization of practical tasks prepares students for their future realization and stimulates them to make independent decisions and work in a team.

3. General theoretical training

The course aims to expand students' theoretical knowledge in modern areas of computer engineering such as: parallel computing, artificial intelligence, programmable logic, image and signal processing, communication technologies.

4. Specific training

To develop the specific abilities of students, specialized subjects are studied such as: Computer vision, Internet programming, Systems for remote monitoring and control of spacecraft, Design of ultra-large integrated circuits, Distributed embedded systems, Natural language interfaces, Self-learning programming.

5. Professional competencies and realization

CST Master Engineer diploma enables graduates to work in a vast range of fields as highly educated professionals, team leaders, project managers and others. Developing of their knowledge in the master's course allows to acquire techniques for management and implementation of complete projects in the fields of Information Systems, Computer Communications, Software Engineering, Design of Systems with Programmable Logic, Embedded Systems and Automation, Parallel Computing and Cloud Computing, and many others.

DEAN: ……
(assoc. prof. Phd eng. Georgi Ganev)

Accepted in Faculty council of faculty of Electronics and Automation on 10.09.2020 protocol № 9.

Approved in Academical council of TU – Sofia protocol № 8 / 30.09.2020.