**International Training Workshop *"Digital Technologies and Transformation of Higher Education"* on 22–23 November 2018 in Tbilisi, Georgia**.

An international training workshop *"Digital Technologies and Transformation of Higher Education"* was held by the UNESCO Institute for Information Technologies in Education (UNESCO IITE) in partnership with Georgian Technical University at Georgian Technical University, on 22–23 November 2018 (Contract N: 4500377667).

The initiator of the event was the Research Institute of Public Administration of the Faculty of Business Technologies of Georgian Technical University.

**Venue:** Tbilisi, Georgian Technical University, Kostava str. 77, Administrative building, III floor, Meeting room.

**The purpose of the meeting:** To expand the capacities of the academic staff and managers of the participant universities through the use of digital technologies in order to increase the efficiency of performance of the higher education institution.

### Number of participants and composition:

The following Universities and Scientific Institutions were invited to participate in the seminar:
A) Georgian Technical University (Tbilisi);
B) Ivane Javakhishvili Tbilisi State University (Tbilisi);
C) Batumi Maritime Academy (Batumi);
D) Sokhumi State University (Sokhumi);
E) Akaki Tsereteli State University (Kutaisi);
F) Grigol Robakidze University (Batumi)
G) Medical University - GEOMED (Tbilisi);
H) University of Georgia (Tbilisi);
I) Guram Tavartkiladze Teaching University, Tbilisi;
J) R. Agladze Institute of Inorganic Chemistry and Electrochemistry;
K) Research Institute of Public Administration.

### The seminar was greeted by:

**Professor Zurab Gasitashvili**- Deputy Rector for Scientific Field, Member of the Georgian Engineering Academy, Representative of International Corporation "Invensys Process Systems LLC" in Georgia in complex automation issues;

Zurab Gasitashvili emphasized the role of UNESCO in the development of academic and scientific work, talked about the possibilities of access to the virtual laboratories, library, and international data base of Georgian Academic University; the importance of similar seminars in the development of information technologies in the formation of "University of Future".

**Professor Gocha Chogovadze** - Academician of the Georgian Academy of Sciences, Former Rector of Georgian Technical University. Head of the academic department of UNESCO - "Information Society" of Georgian Technical University.

He noted that Digital Education is a social order and satisfaction of the demands of society for such workshops is an urgent necessity.

**Ms. Tatiana Murovana**, Programme Specialist, UNESCO Institute for Information Technologies in Education

The speaker elcomed the managers of Georgian Technical Universities and, on behalf of the director of UNESCO Institute for Information Technologies in Education Mr. Tao Zhan, thanked for organization of the workshop. She underlined the global and local importance of the selected theme. This seminar supported by UNESCO serves to qualify the academic staff and administration in the process of modernization of education system.

**Mariam Tsatsanashvili,** Head of the Research Institute for Public Administration, Georgian Technical University (Georgia) – underlined the experience of invited experts, thanked the participants and UNESCO Institute for Information Technologies in Education and expressed hope that the seminar will facilitate cooperation of the international educational society in ensuring quality education and sustainable development of the education system.

**Professor RusudanKutateladze** - The Dean of the Faculty of Business Technologies of Georgian Technical University greeted the participants and thanked UNESCO Institute for Information Technologies for collaboration in organizing the event to promote successful practices in this field;

The plenary session was held after the opening remarks with two round tables, three workshops, and a closing session.

### 1. Plenary session:

Mr. Chris Kang, Director, Korea Local Information Research & Development Institute (South Korea) - *4th Industrial Revolution Impact Toward Training and Education Future:*
*ICT Paradigm Change Leveraging the Power of AI, IoT, Cloud, Big Data, 5G, etc.*

The speaker emphasized the fast growth of databases, importance of robots, introduced the digital practice management of Korea to the participants, as well as the essence of blockchain technology and the role of artificial intelligence in the electronic civilization, and assumed that the possibility of existence of the thinker population will always be if we discuss the latter creatively: what can a robot do for a man? He answered the questions of the participants regarding the peculiarities of the reliable storage of information on servers.

Mr. Alexander Fadeev, Vice-Rector for Digital Affairs and Director of the Center for Digital Education, Tomsk Polytechnic University (Russian Federation)- ***Digital Education Technologies in Universities***

He talked about the practice and experience of modernization of the education system using new technologies at the University of Tomsk; characterized the role of the professor, as the guide in virtual environment. However, he also noted that moving and adaptation to the individual trajectory is a difficult and painful way;

Mr. Levan Imnaishvili, Head of the Academic Department of Computer Engineering, Georgian Technical University (Georgia)

***Innovation Information Technologies in Georgian Technical University***

The speaker talked about mastering of the technologies in Georgian Technical University and the practice of using them in organization of the university's examination and training processes.

2. **Round table** - *Digital Transformation Trends in Higher Education*

Mr. Alexander Fadeev, Vice-Rector for Digital Affairs and Director of the Centre for Digital Education, Tomsk Polytechnic University (Russian Federation)

The moderator talked about virtual environment and new educational trends; emphasized the need for proper management in this process and held discussions on the importance of creating and offering online courses. Every achievement in this field was substantiated by the speaker.

3. **Workshop -** *Digital Skills and Media and Information Literacy*

Facilitator: Ms. Tatiana Murovana, Programme Specialist, UNESCO Institute for Information Technologies in Education

The speaker emphasized the creative approach to digital skills, the role of digital literacy in solving new tasks as well as the contribution of UNESCO in this area.

4. **Workshop** - *Evolution of Education Information Ecosystem*

Mr. Alexander Fadeev, Vice-Rector for Digital Affairs and Director of the Centre for Digital Education, Tomsk Polytechnic University (Russian Federation);

He presented the model of knowledge and student evaluation in virtual environment; discussed the criteria and examples of assessment of the online courses. His speech was devoted to the problems of University management in the field of new technologies, as well as how the education system changes and what instruments are used in the modern world in this direction within the terms of fourth revolution.

5. **Workshop -** *Open Educational Resources for Facilitating the Lecturer's Educational and Research Activities*

Ms. Natalia Dneprovskaya, Associate Professor of the Department of Information System Management and Programming, Plekhanov Russian University of Economics (Russian Federation).

Talked about the importance of the knowledge of successful practice for professors and the criteria for student evaluation

**Parallel sessions**

➢ **Round table "*Digital Technologies as a Driver for University Development*"**

Moderator: Mr. Alexander Fadeev, Vice-Rector for Digital Affairs and Director of the Center for Digital Education, Tomsk Polytechnic University (Russian Federation)

➢ **Training "*Development and Implementation of Digital Educational Resources: Trends and Mechanisms*"**
Facilitator: Ms. Natalia Dneprovskaya, Associate Professor of the Department of Information System Management and Programming, Plekhanov Russian University of Economics (Russian Federation)

The parallel sessions were about online courses and management mechanisms, forms, and opportunities for cooperation of participants in the teaching process. The questions were answered, such as: why the electronic courses should be created, how to start and use them as open resources, what the time factor is and how careful we must be with the problem of real and fake information on the internet.

The parallel sessions were held in computer classes by introduction of specific steps.

6. **Closing session**

Moderators: UNESCO IITE and Georgian Technical University

Ms. Mariam Tsatsanashvili, Head of the Institute for Public Administration Research, Georgian Technical University (Georgia)
*Development and Implementation of Digital Educational Resources, Intellectual Property and Open Licenses*
The speaker summed up the course of the workshop, mphasized the qualification of the experts and the importance of the workshop for the development and implementation of the SMART-education local platform.

She spoke about access to international databases in Georgia, infrastructural opportunities of Georgian Technical University and transfer process of technologies simultaneously with the necessity of connection of the digital education resources with intellectual property issues. She noted that such workshops will help answer the question: how to make every step specific, measurable, achievable, relevant and timely.

Finally, the organizer and participants of the workshop once again noted the role of UNESCO in sustainable development of the education system and expressed their deep respect for organizing and holding the workshop. At the end of the international training workshop, the participants and speakers were awarded the certificates and open badges.