



# ZiiK-Report No. 50 3<sup>rd</sup> Exhibition of Students' IT Projects IT Competence Center of Afghanistan December 15<sup>th</sup> – 16<sup>th</sup>, 2018





#### Organized by



IT Department of the Ministry of Higher Education (MoHE)



IT Competence and Research Center Afghanistan (ITCC)



Center for international and intercultural Communication (ZiiK) at Technische Universität Berlin (TU Berlin)

#### **Funding**





Deutscher Akademischer Austausch Dienst German Academic Exchange Service





#### **Imprint**

Edited by Dr. Nazir Peroz

**Compiled** by Daniel Tippmann and Prof. Azim Noorbakhsh

Photographs: ITCC Afghanistan

Technische Universität Berlin Center for international and intercultural Communication (ZiiK) Faculty of Electrical Engineering and Computer Science Fraunhoferstr. 33-36, 10587 Berlin www.tu-berlin.de/ziik

January 2019

ISSN 1619-3660

## Third Exhibition of Students' IT Projects December 15<sup>th</sup>-16<sup>th</sup>, 2018

This year, the ZiiK of TU Berlin and the IT Competence Center Afghanistan (ITCC) in cooperation with the IT Department of the Ministry of Higher Education (MoHE) organized an Information Technology Week (IT week) in Afghanistan from December 15<sup>th</sup> through 19<sup>th</sup>. This IT Week consisted of the 3<sup>rd</sup> IT exhibition on December 15<sup>th</sup> and 16<sup>th</sup> and the 14<sup>th</sup> IT conference from December 17<sup>th</sup> until 19<sup>th</sup>.

During this week workshops and discussions were held as well as chosen IT topics were presented to the public including IT projects from computer science students. The IT Week was accompanied by politics and the media.

The third IT exhibition was opened on December 15<sup>th</sup> (annex 5) by a message of H.E. the First Lady of Afghanistan, Mrs. Rula Ghani, which was read by Ms. Marjan Mateen, as well as by the Minister for Higher Education, Dr. Khwaja Omary.

35 innovative students' IT projects from 12 Afghan universities (annex 4) were exhibited, and in the end, the five best of these IT projects were selected by a jury. The winners were awarded a notebook computer during the IT conference on December 17<sup>th</sup>. Three of these notebooks were kindly donated by the Division of Computer Science and Development of the German Informatics Society (GI e.V.), and two by the ZiiK of TU Berlin.

Among the winners were projects like "Smart Helmet for Miners", "Hi Taxi", "Pregnancy Assistant", "HR Management System" and "Handy Stick for blind people".

All 35 student's projects are good examples of the creative potential of the talented youth of Afghanistan for its society and future.

In the following, the **third IT exhibition** will be presented briefly.

#### 1. Third Exhibition of Student's IT Projects



The opening ceremony of this year's IT exhibition was moderated by Prof. Azim Noorbakhsh, Head of Public Relations and strategic planning of the ITCC Afghanistan. First, a few verses of the Holy Quran were recitated. In the following, Dr. Peroz, Head of the ITCC Afghanistan, welcomed Ms. Marjan Mateen, advisor of the First Lady of Afghanistan, Dr. Khwaja Omary, Minister of Higher Education, Prof.

Baray Seddiqi and Prof. Dr. Seyer Mahjoor, Deputy Ministers for Higher Education, Dr. Sharif Fayez, former Minister of Higher Education, Prof. Osman Babury, former Deputy Minister of Higher Education, Prof. Dr. Zarif, President of Kabul Medical University, Prof. Kakar, President of Kabul Polytechnic University, Prof. Dr. Tutakhil, President of Qandahar University, Ms. Shukria Jamal, Head of the IT Department of the MoHE, Deans of Computer Science faculties, lecturers, students and all guests to the IT exhibition.



Dr. Peroz continued by explaining that today, IT has changed the face of the world and introduced a new global culture. It enables us to develop our lives and society, therefore, we need to keep up with the development of this phenomenon. The national and international universities play a crucial role in achieving this. Students are the most active members of these institutions, and inventions

that further the world's progress have been made by these students.

He continued by pointing out that today's IT exhibition showcases the results and achievements of students from Afghan Universities. This year, twelve universities (Kabul University, Kabul Polytechnic University, Kabul Educational University, Herat University, Qandahar University, Nangarhar University, Balkh University, Kunduz University, Kunar University, Khost University, and three private institutes of higher education, Kardan, Rana and Bakhtar) were invited to submit their students' projects to this IT exhibition, 35 projects in total (annex 4).

Dr. Peroz continued to explain that each participant would be given five minutes to present their project. The jury, comprised of Computer Science lecturers, technical experts from the private sector, one representative of the MoHE, and other branches/disciplines, judged each of the projects. Like in the previous years, the winner projects were awarded a notebook during the IT conference on December 17<sup>th</sup>. He concluded by thanking the First Lady of Afghanistan for her support and the MoHE for the smooth cooperation.

### Opening speech by the First Lady of Afghanistan, H.E. Mrs. Rula Ghani, read by Ms. Marjan Mateen



Mrs. Mateen began reading H.E. Mrs. Ghani's speech, who first expressed H.E.'s appreciation of opening the IT exhibition for the third time this year. She went on to thank Dr. Peroz for organizing this event, to exhibit the skills and potentials of the Afghan computer science students, and to provide them a platform for competition at the ITCC Afghanistan. This event contributes to creating a culture of professionality at the universities.

She stated that today, we must be aware of the fact that IT has become a part of our day-to-day lifes. The young generation needs to use their skills and competence to meet today's challenges and to find solutions to establish a better society. She expressed her gratitude for Dr. Peroz' patience and for opening the world of computer science to the young generation in Afghanistan.

She was confident that the network of IT experts will grow with them and that they will foster the development of IT in the country. She concluded her speech by thanking the MoHE for the support and wished all participants good luck.

#### Opening speech by the Minister of Higher Education, Dr. Khwaja Omary



Dr. Khwaja Omary first welcomed Ms. Mateen, Dr. Nazir Peroz, the Presidents of the Afghan universities and his colleagues from the MoHE. Dr. Khwaja Omary stated that it is a pleasure to welcome the students and their IT projects from various computer science faculties across Afghanistan to this exhibition and competition. Today, it can be observed that not only the students' skills are improving, but also that universities

are communicating and cooperating with each other. This event plays an important part for the development of the IT landscape in Afghanistan, and the ITCC Afghanistan is crucial for the competition and competence at the MoHE. Today, as he went on, all students and lecturers are aware that IT bears the potential to connect to the world.

He then turned to the students and encouraged them to stay awake and curious, and to cooperate, in order to make this country a place of science and culture again. He said, students are the key to development and innovation, and asked them to pass on their knowledge to fellow students. Dr. Khwaja Omary closed his speech by thanking Dr. Peroz for realizing this event and for always working to improve the quality of higher education in Afghanistan.

Photographs of the event can be found in annex 1.

#### Visiting the student's IT projects



After the opening the speeches, visitors took a tour through the exhibition. Ms. Mateen and Dr. Khwaja Omary were impressed by the creativity of the students. 35 ΙT projects showed the public their commitment to using IT to support the country to meet its urgent challenges.

Among the visitors were representatives of the Ministries of Higher Education, Economy, the Presidents of Kabul Medical University, Kabul Polytechnic University and Qandahar University, as well as deans of the computer science faculties of the Universities of Kabul and Kabul Polytechnic, and further guests. Numerous Afghan TV stations reported about the event. Further photographs of the event can be found in annex 2.

#### Selection of the five best IT projects



All students were given five minutes to present their projects. After these presentations, the five best IT projects were chosen by a jury of representatives of science, politics and the private sector. Like in the previous years, the winners were awarded a notebook which was handed over during the 14<sup>th</sup> IT conference on

December 17<sup>th</sup>. This year's winners were students of the Universities of Nangarhar, Qandahar, Kunduz, and two from Kabul Polytechnic University.

Jury committee: Prof. Seddiqi, Deputy Minister of the MoHE, Dr. Fayez, former Minister of Higher Education, Dr. Tutakhil president of Qandahar University, Dr. Peroz, Director of ITCC Afghanistan, Ms. Jamal, Head of the IT Department of the MoHE, Prof. Mirza, Dean of Computer Engineering and Informatics faculty at Kabul Polytechnic University, Dr. Adelyar, Dean of Computer Science faculty at Kabul University, Mr. Qudrat, Nawaerie Company, Mr. Zia, PhD student at TU Berlin, and Mr. Ramaki, Manager of ITCC Afghanistan. Photographs of the event can be found in annex 3.

#### Annex 1

#### Opening of the 3rd IT exhibition













#### Annex 2

#### Visiting the students' IT projects

























#### Selection of the five best IT projects by the jury













Annex 4
List of students' IT projects of the 3rd IT exhibition at the ITCC Afghanistan

| No. | Surname    | First Name          | University                        | Project Name  |
|-----|------------|---------------------|-----------------------------------|---|
| 1   | Hashimi    | Mohammad<br>Badar   | Kabul                             | Automatic Pashto Text<br>Summarization  |
| 2   | Mahmood    | Mohammad<br>Yousuf  | Kabul                             | Concept of infrastructure plan<br>to reform and improve<br>Afghanistan educational system |
| 3   | Kazimi     | Nazifa              | Kabul Polytechnic                 | Sentiment Analysis on Text in Dari Language   |
| 4   | Arzomand   | Kawsar              | Kabul Polytechnic                 | Smart Helmet for Miners   |
| 5   | Muhammadi  | Muhammad<br>Wares   | Kabul<br>Polytechnic              | Hi Taxi   |
| 6   | Ebrahemi   | Mohammad<br>Azim    | Kabul Polytechnic                 | Clinic Management Information<br>System   |
| 7   | Haiderzada | Abdul Hussanin      | Balkh                             | Pharmacy Management System  |
| 8   | Qamar      | Sayed<br>Habibullah | Balkh                             | O.P.D (Online Outpatient<br>Department) System  |
| 9   | Sedeqi     | Nazrahna            | Herat                             | Security System   |
| 10  | Haidari    | Faieq Afghan        | Herat                             | Healthcare System   |
| 11  | Arghand    | Hassibullah         | Herat                             | Afghanistan University Information System   |
| 12  | Noori      | Zabihyllah          | Kandahar                          | MDBS (Medicine Bed Bake<br>System)  |
| 13  | Hotak      | Ahmad Zia           | Kandahar                          | Agriculture Base Business<br>System   |
| 14  | Rafiqi     | Mohammad<br>Haroon  | Kandahar                          | Pregnancy Assistant   |
| 15  | Ziar       | Jananzaib           | Said Jammaluden<br>Afghan (Kunar) | MIS for Presidency of Mine sand<br>Petroleum of Kunar                                     |
| 16  |            | Abdul Hadi          | Said Jammaluden<br>Afghan (Kunar) | Alzahoor private high school web base management system                                   |
| 17  | Sadat      | Sayed Ishaq         | Said Jammaluden<br>Afghan (Kunar) | Hamoun Chahardiwal Haspital<br>Management and Information<br>System                       |
| 18  | Qurashi    | Abdul awal          | Kunduz University                 | HR Management System  |

| No. | Surname   | First Name         | University                                | Project Name  |
|-----|-----------|--------------------|---|---|
| 19  | Danishjo  | Safiullah          | Kunduz University                         | Fine Blood Social Media   |
| 20  | Sahmi     | Mohammad<br>Hashim | Kunduz University                         | Website and information<br>System of Hospital                   |
| 21  | Ahmadzai  | Noorullah          | Kardan Private                            | DTS (Data Transfer System)                                      |
| 22  | Ramaky    | Shafiullah         | Kardan Private                            | Crypto- An Encryption/Decryption Technique for any type of file |
| 23  | Dastager  | Arif               | Shaheed Pro.<br>Rabani Kabul<br>Education | Hospital Management System                                      |
| 24  | Acehaqzai | Suliman            | Shaheed Pro.<br>Rabani Kabul<br>Education | Electronic Voting Machine                                       |
| 25  |           | Shadab             | Shaheed Pro.<br>Rabani Kabul<br>Education | Gym Management System   |
| 26  |           | Rashid Ahmad       | Nangarhar<br>University                   | Electronic voting system  |
| 27  |           | Mubasher<br>Ahmad  | Nangarhar                                 | Student Tracking and<br>Attendance System                       |
| 28  | Halimzai  | Azmatullha         | Nangarhar                                 | Handy Stick for blinds  |
| 29  | Haidari   | Rahmatullah        | Bakhtar Private                           | AU Renewal Network  |
| 30  | Shahab    | Zamary             | Bakhtar Private                           | e-Election System   |
| 31  | Walizada  | Eimal              | Rana Private                              | Ghori Management System   |
| 32  | Atayee    | Sayed Eeraj        | Rana Private                              | Youth and Sport Management System                               |
| 33  | Ghory     | Mursal             | Kabul/ITCC                                | Text Summarization in Dari<br>Language                          |
| 34  | Naseri    | Mohammad<br>Mahdi  | KPU/ITCC                                  | E-voting and communication portal for Afghanistan parliament    |
| 35  | Hussaini  | Mohammad<br>Sharif | KPU/ITCC                                  | Vehicle registration, controlling and reporting system          |





Annex 5

# 3<sup>rd</sup> Exhibition of Student's IT Projects IT Competence Center of Afghanistan December 15<sup>th</sup> – 16<sup>th</sup>, 2018

The IT Competence Center of Afghanistan (ITCC Afghanistan) is organizing the third exhibition of student's IT projects in Kabul on the campus of the Ministry of Higher Education (MoHE) on December 15<sup>th</sup> and 16<sup>th</sup>, 2018. The aim of this exhibition is to present IT projects from students of computer science faculties of different Afghan universities and also to introduce new innovative ideas based on student's projects to the Afghan society.

At least three projects from each university will be participating in the competition from which a jury will select the five best to be awarded with a prize. The prizes are awarded by the Department of Computer Science and Social Development of the Gesellschaft für Informatik (GI) and ZiiK of TU Berlin. The projects are divided in three categories: Software Applications, Network and Security, and Database Systems. The prizes will be handed over to the winners during the 14<sup>th</sup> IT Conference at the MoHE on December 17<sup>th</sup>, 2018.

The exhibition begins on **December 15<sup>th</sup> 2018, at 10:00am,** and takes place at the ITCC Afghanistan.

#### Address:

ITCC Afghanistan Ministry of Higher Education Karte char Kabul/Afghanistan

#### Contact:

Prof. Azim Noorbakhsh, Head of Public Relations and Strategic Planning of the ITCC Afghanistan Tel. +93-700 222 159 Email: azim.noorbakhsh@gmail.com









#### First day: Saturday, December 15<sup>th</sup>, 2018

Moderation: Prof. Azim Noorbakhsh, Head of Public Relations and Strategic Planning of

the ITCC Afghanistan

10:00 am Recitation of Quran-e-Sharif

Welcome

10:10 – 10:20 am Dr. Nazir Peroz, Director of the ZiiK of TU Berlin and Director of the ITCC

Afghanistan

**Opening** 

10:20 - 10:30 am Ms. Marjan Mateen, Advisor for Education and Youth of the First Lady of

Afghanistan, reading a message from H.E. Mrs. Rula Ghani, First Lady of the

Islamic Republic of Afghanistan

10:30 - 10:40 am H.E. Dr. Najibullah Khwaja Omary, Minister of Higher Education of

Afghanistan

10:40 - 12:00 am Demonstration of IT projects of the students

12:00 am **Lunch** 

2:00 - 4:00 pm Evaluation of the IT projects by the jury

4:00 pm End of first day

#### Second day: Sunday, December 16<sup>th</sup>, 2018

10:00 - 12:00 am Evaluation of the IT projects by the jury

12:00 am **Lunch** 

2:00 - 4:00 pm Decision about the five best IT projects by the jury

4:00 pm End of second day



