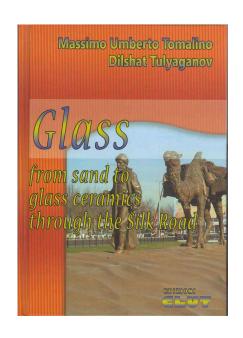
The new book titled "GLASS from sand to glass-ceramics through the Silk Road"

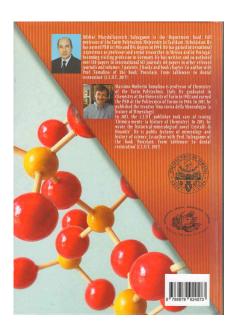
Short annotation



The new book titled "GLASS from sand to glass-ceramics through the Silk Road" has been issued a few weeks ago in Italy by CLUT publisher (www.clut.it). The book was co-authorized by professor Massimo Tomalino from Politecnico di Torino along with professor Dilshat Tulyaganov from Turin Polytechnic University in Tashkent. This is the second book of the authors while the first one titled "Porcelain from tableware to dental restoration has been issued by the same publisher in

2017.

The first part of the book "GLASS from sand to glass-ceramics through the Silk Road" deals with the development of glass since its origin in Mesopotamia many millennia ago to modern time across the Roman and Medieval Ages, with emphasis on its importance in arts, architecture and history of science. A fascinating (virtual) travel along the Silk Route is also proposed to the Reader: in this regard, the different uses of glass in the Western and Eastern countries of Eurasia are acutely related to different visions of the world. Thus, the story of glass is presented to be tightly interlocked with the people's historical, religious and social events over the centuries.



The second part focuses on glass science and technology, with emphasis on the fundamentals of glass structural theories, the methods for silicate glass and glass-ceramic production, and the analysis of the composition-property-function relationships. A special section is dedicated to the use of glasses in medicine.

The timeline of glass development across history is provided at the end of the book, where an exhaustive chronological table collects the main achievements of glass evolution and impacts on mankind.

This book provides a valuable, interdisciplinary, rigorous but easy-to-follow overview of glass history, science, technology and applications that can be useful to a broad readership, including undergraduate and graduate students, scholars, researchers from academia and industry, and all those who simply love glass and wish to learn more about it.

New study program in space systems and communication engineering



A research project related to an artificial earth satellite has begun at the Turin Polytechnic University in Tashkent.

Since November 15, 2019, the Turin Polytechnic University (TTPU) in collaboration with several international and local universities, within the framework of the European program Erasmus +, launched the project "New study program in space systems and communication engineering" — SPACECOM).



On November 20, all partner universities met at the Tashkent University of

Information Technology (TUIT). European partners from Berlin Technical University (Germany) and EXOLAUNCH (Germany) participated also took part in the occasion. During the meeting, the main objectives and conditions of the project were discussed.

The first conference on this project is scheduled for March 4, 2020, at TUIT.

Photo report from the first republican competition from the GRBS team and Turin Polytechnic University in Tashkent

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The competition results will be announced in 10 days at the official ceremony of GRBS and TTPU.

For additional questions, please come to our office or contact the numbers below:

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Instagram: https://www.instagram.com/grbs_uzbekistan/

Telegram: https://t.me/MyGRBS
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Do you want to improve your intellectual potential?

Or to become the BEST among your peers? Or to expand the circle of friends? Or to win valuable prizes? Take part in our competition! This competition will give you a great opportunity to achieve everything at once!

Turin Polytechnic Institute in Tashkent for the first time organizes the competition called "The team of the best readers" and encourages new talented readers. Do not miss a chance and show your abilities and talents!

Applications are accepted from February 1 to February 29.

The competition includes the following stages:

1. "Connoisseur in Uzbek literature"

- 2. "Connoisseur in world literature"
- 3. "Poetry"
- 4. "Scene on a free topic"

Information on the list of books selected for the competition" The best team of readers $-2020^{\prime\prime}$ can be gotten in the department on working with youth (room -202).

Teams with high results will be awarded valuable prizes!

Do you know how the Uzbek language originated and developed?

The history of the emergence and development of the Uzbek language is closely intertwined with the history of its native speakers. The emergence of such a nation as the Uzbek people was due to the process of the merger of a number of ethnic groups, the means of communication of which were Turkic and Iranian languages. This explains a large number of dialects in the Uzbek dialect, between which there is a huge difference.

The history of the development of the Uzbek language can be divided into three stages: periods of ancient Turkic, Old Uzbek, and modern Uzbek languages.

Ancient Turkic language

This stage belongs to the V-XI centuries. The Turks settled along the shores of the Syr Darya, Amu Darya and Zerafshan, gradually pushing the inhabitants of the Indo-Iranian tribes. The means of communication was the ancient Turkic language, on the basis of which many Asian languages were subsequently formed. Today, there are only fragments of the ancient Turkic

script, imprinted on cultural monuments belonging to this period.

Old Uzbek language

The second stage dates back to the XI-XIX centuries. During this time, the Uzbek language developed under the influence of many neighboring languages. A huge contribution to the formation of the language was made by the poet Alisher Navoi, who created a unified and developed literary language. It was in this form that it was used until the turn of the 19th century without change.

Modern Uzbek language

The twentieth century was marked by the beginning of the formation of the modern Uzbek language. It was based on the Ferghana dialect — universally recognized among all residents of Uzbekistan. Most of the population spoke this dialect, which they knew as the Sartain language, and its speakers were called Sarts. Ethnic sarts did not belong to the Uzbek people, but in the 20s of the last century the word "sart" was refused, and the inhabitants of the country began to be called Uzbeks. The norms of the literary language became more democratic, which made it much simpler and more accessible.

Uzbek writing

Over the entire history of development in the Uzbek language, there were three different scripts.

From antiquity to the end of the 20s of the last century, the Uzbek ethnic group was based on the Arabic alphabet. With the advent of Soviet power, the writing was subjected to a series of reforms. Until 1938, the Latin alphabet was in use, and then switched to the Cyrillic alphabet, which lasted until 1993. When the Republic of Uzbekistan became an independent state, the Latin alphabet returned again.

Today, in the Uzbek script, Arabic letters, Latin and Cyrillic letters are used in parallel. The older generation prefers Cyrillic graphics, and the Uzbeks living abroad prefer Arabic letters. In schools, they study in Latin, so it is difficult for pupils and students to read books that were published even during the Soviet era.

The Uzbek language is rich in loanwords from the Persian language. In the XX century, vocabulary was significantly enriched in Russian-speaking words, and today it is intensively replenished with English borrowings. According to the state program. There is an active cleaning of the language from borrowed words. All this, of course, causes special difficulties in learning the Uzbek language and translations but makes it peculiar and more interesting.

According to open sources, there are currently about 24 million speakers of the Uzbek language in Uzbekistan, 3 million — in Afghanistan, about 1 million — in Tajikistan, 500,000 — in Kazakhstan, about 350,000 — in Turkmenistan, and 300,000 — in Russia.

Program «2 + 2» is an integration of European Education with National Educational Standards

Turin Polytechnic University in Tashkent and Andijan Machine-Building Institute signed an agreement on a joint double-degree program named "2 + 2". The implementation of the joint program was made possible due to the decree of the President

of the Republic of Uzbekistan № DP-4397 dated from July 18, 2019 "On additional measures for the accelerated development of the automotive industry of the Republic of Uzbekistan".

The purpose of the joint program is to promote the use of advanced educational resources between the two higher educational institutions, to introduce international educational standards and to encourage the involvement of talented teachers in academic programs. This program helps to prepare competitive students with flexible thinking, a high level of modern global vision, strong capabilities in engineering science and decision-making abilities.

According to this program, students who have successfully completed the second-year study of the Andijan Machine-Building Institute can be enrolled at Turin Polytechnic University in Tashkent, according to the academic performance and level of English proficiency. Upon completion of the university, students who meet the criteria and requirements established by both educational institutions will receive appropriate bachelor's degrees and diplomas of the Andijan Machine-Building Institute and Turin Polytechnic University in Tashkent.

Starting from the current 2019-2020 academic year, the first students were accepted for participating under the "2+2" program in the field of Mechanical Engineering.



"The program "2 + 2" is a wonderful opportunity to gain knowledge, experience and a double diploma both at the state

and international levels. I am happy to be one of the first owners of such an opportunity," said Izzatullo Rakhmonov, a third-year student studying in this program.

In the future, it is planned to expand the program"2 + 2" to other areas of specialization. We hope that this agreement between the universities and the jointly organized undergraduate program of obtaining a double diploma will become an excellent base for developing the potential of the automotive industry in our country.

"We are your defenders, my Motherland!"

To love the Motherland, to protect and preserve it as the apple of the eye, to fight for its independence and prospects, for peace and prosperity and even sacrifice your own life for it is the duty of every citizen. Our defenders devote their whole lives to protecting the borders of our country.

This year "The Day of Defenders of the Fatherland" was widely celebrated at Turin Polytechnic University in Tashkent. The event was attended by the Vice-Rector of the University A. Ashurov, the Chairman of the Creative Union of Cinematographers of Uzbekistan M.Matchonov and the Honored Artist of Uzbekistan R.Aliyev.

The event was opened by Vice-Rector on Working with Youth A.

Ashurov. In his speech, he noted that defending the homeland is indeed an honorable duty of every citizen, regardless of age, occupation and profession. He also noted about the attention paid to the celebration of "the Day of Defenders of the Fatherland" in the republic, about the National Army, which is an integral part of our society and becoming the leading institution for educating the younger generation and military personnel in the spirit of patriotism, strengthening their active position and increasing their sense of civil responsibility.

Students of the academic lyceum at the university opened the artistic part of the event with poems about peace in the country, about feeling and love to the motherland. The next word was given to the chairman of the Creative Union of Cinematographers of Uzbekistan M. Matchonov and Honored Artist of Uzbekistan R. Aliyev. They told about the meaning of the patriotic film "Behind the Peace" by playwright Akbar Bekturdiev prepared for the end of the event, their roles, episodes and impressions. Later, students were given the opportunity to watch the new patriotic film "Behind the Peace" about the touching and semantic story of a citizen.







Recruitment for educational grants has begun!

The British NCC Education campus in Tashkent — GRBS®, together with Turin Polytechnic University in Tashkent (TPUT), on the

basis of a partnership agreement, announces the FIRST
Republican Competition in Uzbekistan providing education
grants.
$\hfill\square$ Date of the competition: January 25, 2020
☐ Competition time: 12:00
!!□ Registration: Registration ends on January 24th at 17:00
Online registration at the link: bit.ly/GRBS-Turin-Grantlar
Participation in the competition is FREE.
☐ Venue: 100077, Tashkent, Mirzo Ulugbek district, Buyuk Ipak
Yuli street 2, International campus — GRBS® Tashkent
□□ All applicants who meet the following requirements can
participate in the competition:
◆□ The applicant must not have a higher education
◆□ The applicant should not be a student of any higher
education institution
The competition will be held in the following subjects:
☐ The competition will be held in the following subjects:
EnglishMaths
- Physics
For more information, contact:
□ +998 78 129 19 19
□: +998 90 188 56 86
□ info.tashkent@grbs.com
☐ Facebook (https://www.fb.com/grbsuzbekistan)
☐ Instagram (https://www.instagram.com/grbs_uzbekistan/)
☐ Telegram (https://t.me/MyGRBS)

Uzbekistan24TV: Contribution of Turin Polytechnic University in Tashkent to the automotive industry of Uzbekistan

Excursion to the Museum of the Armed Forces of the Republic of Uzbekistan

According to the decision of January 14, 1992 on the transfer of all military units and formations, military educational institutions and other military formations deployed in the territory of our independent state and the development of a long-term program for reforming the national army of the Republic of Uzbekistan, in order to familiarize themselves with the history and achievements of the Armed Forces, it was organized a tour to the State Museum of the Armed Forces of the Republic of Uzbekistan for students of Turin Polytechnic University in Tashkent.

During the tour, students were able not only to study the history of the Armed Forces of the Republic of Uzbekistan but

also to get acquainted with the expositions of the rich and extensive history of the museum of Central Asian and Uzbek military art. Getting acquainted with the exhibits, university students mentally traveled to our past, learned about the life of people, the development of defense, military equipments and weapons that were used to protect the territories, and also familiarized with the exhibits of our great ancestors, like Jaloliddin Manguberdi, Amir Temur, Zakhiriddin Muhammad Babur and Mirzo Ulugbek.

The monument "Oath to the Motherland", erected at the entrance to the museum and reflecting the image of the faithful and strong son of our country, did not leave anyone indifferent.

The excursion to the State Museum of the Armed Forces of the Republic of Uzbekistan was another step towards increasing students' love and respect for their homeland, dedication and expanding knowledge about the history of our country.









Constructor "Roboland"

"Roboland" is a constructor with over 200 electronic devices designed to educate young people in electronics and

programming. Using these devices, 44 practical projects can be implemented. Mobile phones, turnstile devices, smart thermometers, smart lights, houses, greenhouses — all this is an example of using constructor devices with the use of electronics and programming components. One more example is the dancing "iRobot", which was also represented at the exhibition. In addition, inside the constructor box, there is a guidebook written in the Uzbek language, which allows students to learn the basics of programming and electronics on their own. It should be noted that this book is the first textbook on robotics in the Uzbek language.

On the 27th of December of this year during the opening of a new building of the specialized school for in-depth study of Specialized School of Information and Communication Technology, Javokhkir Rakhimov, Year 4 student of the Turin Polytechnic University of Tashkent, who become a double winner of the Republican Robotics Championship, introduced his constructor "Roboland" and commissioned an instruction from the President of the Republic of Uzbekistan Shavkat Mirziyoyev to develop and implement a project for all schools in the country.

ATTENTION TO ENTRANTS!

Unique opportunity from □□Turino Polytechnic University in Tashkent (TTPU) for all applicants who did not enter universities in September 2019!

□A branch of one of the most prestigious European universities — the Turin Polytechnic University, offers for everyone who wants to continue their studies at □□TTPU from the second year, in the fall of 2020, on the basis of a partnership

agreement between <code>[]TTPU</code> and the British <code>[]NCC</code> Education campus in Tashkent – GRBS® (License No. KMO 0418 from the Agency for Quality Supervision of Education under the Cabinet of Ministers of the Republic of Uzbekistan).

Students who began their studies at the \(\subseteq \text{NCC Education} - \text{GRBS}_{\begin{subsete} \text{RBS}_{\begin{subsete} \text{Campus} in January 2020 under the international program "Level 3 International Foundation Diploma for Higher Education Studies", regulated by British government bodies such as: \(\subseteq \text{OFQUAL}, \text{UCAS}, \text{Department for Business Innovation and Skills, E-Skills UK, Council for Administration, are guaranteed to enroll in the second year in the fall of 2020 in the following areas:

- ☐ Automotive Engineering
- ☐ Mechanical Engineering
- □Information technologies and ACS in industry
- ☐ Civil engineering and architecture

△□Attention! Places are strictly limited.

Do not miss this unique chance bypassing entrance tests and submitting documents by January 31, 2020.

For online registration, follow the link below: □□

bit.ly/Turin-January-2020

We are waiting for you at:

□100077, Tashkent city, Mirzo-Ulugbek district, Mustakillik Avenue, Buyuk Ipak Yuli 2, international GRBS® Tashkent campus.

Winter Camp STEM Camp

□Students of Turin Polytechnic University in Tashkent, with the support of the Ministry of Innovative Development and the specialized school named after Mirzo Ulugbek, opened the winter camp STEM Camp for children aged 6 to 14 years, starting on the 6th of January of this year.

On the 24th of December of last year, a preliminary master class in robotics for children and their parents was held, where participants had the opportunity to get acquainted with the basic knowledge of robotics and the capabilities of the camp, which includes teaching children of the basics of electronics with the help of a special educational and entertaining program "Superhero-inventors" — Arduino.

You can find detailed information on the official telegram channel STEM Camp (https://t.me/stemcamp).

□We are proud of our active and talented students and wish them great success in the realization of their plans and goals!









The scholarship holder of the

Federation of Labour Unions of Uzbekistan

The Federation of Labour Unions of Uzbekistan provides comprehensive support and encouragement of worthy workers and young activists who a worthy contribution to the prosperity of our country, protects their labour and social rights, realizes the talents and abilities of young specialists, as well as a number of social projects aimed at increasing the professional level of employees.

On the 25th of December of this year, at the Alisher Navoi State Academic Grand Opera and Ballet Theater, under the motto "Unite for the prosperity of the country!" the Federation of Trade Unions of Uzbekistan summed up the outgoing 2019 year results, where an awarding ceremony was held in several categories in a festive atmosphere. The awards ceremony was held in several categories. Special prizes were awarded to the laureate in the nominations "The most active young specialist of the year", "The most exemplary primary organization", "Scholarship holder of the Federation of Trade Unions", etc.

This year, 14 active and talented students from higher educational institutions of the country and Tashkent city became laureates in the nomination "Scholarship holder of the Federation of Labour Unions".

According to the results of selection, one of the scholarship holders of the Federation of Labour Unions became Khurshid Ishmuhamedov, a third-year student at Turin Polytechnic University in Tashkent. The laureate was awarded a monthly special scholarship on behalf of the Federation of Trade Unions of Uzbekistan.

We congratulate our the scholarship holder, Ishmuhamedov Khurshid, and wish him success in his studies and in achieving his great goals!







Presentation electronic "Deviser"

of the constructor

On the 19th of December of this year, in order to popularize the startup ecosystem among young people, attract their attention to the field of science and robotics, as well as support projects of young inventors, with the assistance of the Ministry of Innovative Development and the Turin Polytechnic University in Tashkent it was held a presentation of an electronic constructor "Deviser".

During the presentation, it was introduced a new way of

teaching an applied physics using the elements of electronics called the Deviser constructor. The constructor is composed of instructions and developments in three languages (Uzbek, Russian, English), which demonstrated reliable and innovative solutions that contribute to the development of fine motor skills and increase the interest of young engineers in robotics.

The event was attended by Deputy Minister of Innovation Development Olimjon Tuychiev, Chairman of the Central Council of the Youth Union of Uzbekistan Alisher Sadullaev, First Vice-Rector of Turin Polytechnic University in Tashkent, Jamshid Inoyathodjaev.

We remind you that the author of the electronic constructor "Deviser" Ozodov Abdulhafiz, a student at Turin Polytechnic University in Tashkent, won the start-up competition organized by the Ministry of Innovative Development of the Republic of Uzbekistan in June 2019 and was presented a grant to develop his project.

According to the results of the presentation, in order to increase the interest and to support the ideas of school and preschool children in robotics and electronics, the electronic constructor Deviser were admitted to the educational institutions of the republic specialized in teaching the technology and technics.







