

## **CIRIEC Social Economy Days Student Webinar held at IGU**

Istanbul Gelisim University which is the Turkish committee of the International Public, Social and Cooperative Economy Research and Information Center (CIRIEC) founded in Belgium in 1947 as an international scientific organization dealing with social economy held CIRIEC Social Economy Days Student Webinar. There was intense student participation in the webinar.

CIRIEC, a non-governmental organization made up of experts and academics, collaborates with scientific studies and professionals, aiming to create a public, social or cooperative economy that can be an alternative to the liberal market economy, and also conducts various European Union projects.

“IGU HOSTS MEETINGS TWO YEARS, THIS IS A GREAT SUCCESS”

IGU Rector Prof Dr Burhan Aykaç, who was re-elected to the CIRIEC Board of Directors in recent weeks, emphasized the importance of social economy, whose value is more understood during the pandemic process, in the webinar where he made the opening speech. Aykaç said that CIRIEC holds meetings every year in various countries to carry out studies for lower income groups, and that Istanbul Gelişim University has hosted meetings for two years, and this is a great success considering the positive reports received from CIRIEC authorities.

### **SESSION TITLES**

At the online webinar undertaken by Faculty members of IGU Political Science and International Relations (English), Associate Professor Dr. Emine Akçadağ Alagöz and IGU Public Relations and Advertising Department Asst. Prof. Dr. Emel Tozlu Öztay, Asst. Prof. Dr. Olivier Gajac from Galatasaray University Department of Sociology conducted a session titled "Solidarity Economy Initiatives in Turkey: What is our relationship with the Liberal Democratic Society?" and Asst. Prof. Dr. Emrah Doğan from IGU International Trade Department held a session titled "Inclusive and Sustainable Growth and Development in Developing Countries".

## **The importance of electronic publications increased even more during the pandemic period**

The Covid-19 virus, which has been effective all over the world since the end of 2019, continues to increase its effect. Stating that the Covid-19 pandemic also affected the library services, Ahmet Şenol Armağan, Head of the Library and Documentation Department of Istanbul Gelisim University (IGU), stated that the interest in electronic publications increased during the pandemic period compared to the pre-pandemic.

### **MORE THAN 20 DATABASES**

Stating that especially electronic publications became very critical in this period, Armağan indicated that they put millions of books, articles and theses in more than 20 databases to the

service of users and added: "This is because electronic resources are accessible regardless of location and time. All you need is a computer connected to the internet. Faculty members make great use of these publications in the content they prepare. Students also show interest in electronic publications as they cannot come to the library."

#### "24/7 LIBRARY SERVICE CONTINUES"

Noting that a small change is required in their computers in order for users to access these databases from outside the organization, Armağan said, "Thanks to the Easy Proxy system we used, access from outside has become very easy. Even if our users cannot physically come to the library, our library has actually gone to them by making these settings specified on the <http://kddb.gelisim.edu.tr> page. In this way, as contact with people is eliminated, both 24/7 library service continues and pandemic risks are eliminated."

Work was carried out in turn at Istanbul Gelisim University between March and October, and library services were provided at full capacity in all campuses as of October 15, 2020. However, after the changes in pandemic conditions, it was started to work alternately as of 16 November 2020. For this reason, it was stated that it is important to consider this issue during physical visits to the library. It was stated that questions can be directed to the e-mail address of the Library and Documentation Department ([kutuphane@gelisim.edu.tr](mailto:kutuphane@gelisim.edu.tr)) for any subject that is curious about the library.

#### **Turkish engineers developed it; you will learn the blood test result in 5 minutes**

Turkish engineers have developed a sound wave microchip that will enable rapid diagnosis of many diseases, especially blood poisoning (sepsis) and cancer. One of the members of the team conducting the study, Electrical and Electronics Engineer Asst. Prof. Dr. Alper Şişman said: "The blood collection method requires plenty of devices, and you have to wait at least 2 hours to get results, we will reduce this time to 5 minutes."

Engineers at Marmara University and Istanbul Gelisim University have moved to the experimental phase of the acoustic-based microchip project to be used in RNA isolation, which they have been working on for 2 years. Thanks to the microchip, many diseases, especially blood poisoning (sepsis) and cancer, can be diagnosed quickly.

#### **MICROCHIP WORKS WITH SOUND WAVES**

Explaining the details and objectives of the project, Electrical and Electronics Engineer Asst. Prof. Dr. Alper Şişman from Marmara University Faculty of Engineering said that they produced microchips that work using sound waves.

Asst. Prof. Dr. Şişman added: "The microchip first selects the drop of blood placed on it by generating micro vibrations and then breaks it up. It separates and evaluates the fragmented

cells and reveals the RNA molecule. Our primary goal of leukocytes, known as white blood cells, is that after separating this blood group, which protects the body against infections, with microchips, we explode the cell membrane and perform the process to evaluate the genetic information inside it without damaging it.”

#### 2 HOURS OF OPERATION WILL BE REDUCED TO 5 MINUTES

Explaining that it accelerates the diagnosis of diseases such as cancer and sepsis and provides the chance for early intervention, Asst. Prof. Dr. Şişman said: “Thanks to the microchip, we get results from the blood or any body fluid sample we take in a very short time. The blood collection method currently used in hospitals, clinics and laboratories requires plenty of devices, and you have to wait at least 1-2 hours to get results, we will reduce this time to 5 minutes. This chip can also be used in fatal diseases with problematic diagnosis. For example, it can reveal cancer or sepsis, known colloquially as blood poisoning, in a very short time. We will ensure that the patient is intervened early with the microchip.”

#### THE SAME RESULT WILL BE GIVEN WITH A DROP OF BLOOD

Şişman added: “Today, 10-20 milliliters of blood must be taken from people in order for the devices to work. Taking blood samples is a troublesome process, especially for children. With the device we have produced, we will be able to obtain the same result by taking 20 microliters, or a drop of blood, from the finger. We have completed the laboratory tests, the results are very positive. Our parser and cell shredder system works well.”

#### “NO CHEMICAL IS NECESSARY”

Stating that they aim to produce a working prototype within 1.5 years, Şişman said: “Our priority is to ensure the use of microchips in clinics, hospitals and laboratories after mass production. Thanks to this device, many chemicals brought from abroad to break down cells will not be needed, and will contribute greatly to our country's economy. Chemicals can damage the valuable material that comes out after breaking down the cell and reduce our efficiency. Since we use sound waves with the microchip, we will get faster, more efficient and effective results without damaging the target molecule.”

#### WORLDWIDE WORKS CONTINUE

Stating that studies in this field are continuing worldwide, Asst. Prof. Dr. Alper Şişman said: “In some applications, microchips similar to ours are also used, but there is no microchip used worldwide in the area we will use. That's why we take initiatives for intellectual property rights.”

#### EXPERIMENT DONE

Biotechnologist Abbas Ali Hussein from Istanbul Gelisim University, who is the head of the team conducting the study, said, "We are planning to produce acoustic-based microchip to be

used in RNA isolation. We work with experts from different fields such as chemistry, electricity, electronics and biology. We do our experiments with yeast and blood cells from animals. With the experiment we will do today, we will look at the efficiency of the microchip in breaking the cells with sound waves.”

#### NEED FINANCIAL SUPPORT

Emphasizing that all analyzes to be performed with RNA in genetic or clinical laboratories will be performed with microchips, faster, with less sample volume and with less cost, Hussein said: “Thanks to the device, analyzes will be made in the field without the need for a laboratory at the bedside. The results we have now made us happy, we are doing well. We will apply to TÜBİTAK with our project, we need financial support ”.

The production phase of the microchip has been completed, and the experimental work continues. It is aimed to start mass production and launch after 1.5 years.

#### **Flying car Tusi is at MUSIAD with its strengthened structure and new design**

MUSIAD EXPO 2020 Trade Fair, which is one of Turkey's most important technology event opened its doors to visitors at the TUYAP Istanbul Exhibition Center. The flying car Tusi, with its strengthened structure and new design, met with great interest by the visitors at the fair where many technologies were introduced.

MUSIAD EXPO 2020 Trade Fair opened its doors to visitors at TUYAP Istanbul Expo Center. One of the most popular technologies of the fair, which was held with the participation of more than 40 thousand company representatives, was the flying car Tusi. Developed by Istanbul Gelisim University Technology Transfer Office engineers and students, Tusi made its debut in this fair for the first time after being revised and successfully carried out the test drives. While being able to carry a person of 80 kilos, the flying car Tusi, which has been made suitable for a 110-pound individual, has been developed as a more powerful vehicle by downsizing it while working with 6 rotors and arms. Welcoming visitors with its new structure, Tusi has been made both smaller and stronger with 4 rotors and 8 motors.

Research engineer Furkan Yılmaz, who works at the Istanbul Gelisim University Technology Transfer Office, stated that they exhibited Tusi in a completely revised form and said: “We are introducing our flying car to people for the second time. It promises good things for the future. We started the test drives of the vehicle. It's going very well right now. We ventilate and constantly strive for its balance, making structural changes. I believe we will see both this vehicle and the upcoming two and four-seater prototypes on the road in a couple of months. It used to be very difficult to get personalized aircraft. But this prototype is a vehicle that anyone can own, like a car. It will both be a solution to traffic and provide transportation in a short time and with reasonable costs.”

## CAN CARRY AN INDIVIDUAL OF 110 KG WEIGHTS

Lecturer of Istanbul Gelisim University Mechatronics Program Umut Uz expressed that they are in Turkey's largest trade fair this year, and added: "We take part in this fair with our car assertively. We conducted our flight tests. As of today, we have made our vehicle visually better and brought it together with people right now. There is a lot of interest in our car. There are also many participants from abroad. We made changes to our vehicle. We also adapt to the advancement of technology. We renewed the interior of our vehicle. Currently, our development work continues. Flying car technology was a dream. But we are striving to make this a reality. With the introduction of legal procedures into the system, we want to make this vehicle travelable with an individual and perform a flight test within two years. It is important for our country to work in this field. It is our honor to be able to lead this."

## President Erdoğan examined the flying car TUSI

President Recep Tayyip Erdogan visited the 18th MUSIAD Expo Fair held in TUYAP Fair and Convention Center in Istanbul. Erdogan examined the flying car 'TUSI' developed by Istanbul Gelisim University (IGU).

President Recep Tayyip Erdogan visited the MUSIAD EXPO 2020 Trade Fair today. Stating that they were ready to walk along with everyone else who believes in power, potential, and the future of Turkey, Erdoğan noted:

"We will support every step that can turn the change in the global economy in our favor. We stood by everyone who took action for investment, production, export and employment, and we will continue to do so. We will hopefully make this process a success by increasing our production and export capacity with new investments and using the existing facilities at a higher level and by ensuring the transition to high technology at every stage from design to manufacturing. God bless everyone who put stone on stone for the Turkey's development, growth, empowerment. I would like to thank MUSIAD for bringing together our business people who mobilize this potential of our nation and supporting it with its growing organization."

## "SOURCE OF PRIDE"

Speaking about the flying car TUSI realized by the university, Abdülkadir Gayretli, Chairman of the Board of Trustees of Istanbul Gelisim University, stated that they were happy to be the center of attention at the fair.

Gayretli added: "TUSI, for which we have been conducting R&D studies for a long time and having successful trial runs, took part in MUSIAD EXPO with its new design. Its structure has been strengthened. It was a source of pride for us to receive the attention of our President at the fair. Human resource data of Istanbul Gelisim University is always open to all business world and government institutions."

Underlining that universities are an important production factor for regional and national economies, Gayretli said: “The Chairman of the Council of Higher Education (YÖK) Prof. Dr. Yekta Saraç brought many innovations to the universities. The way was paved for the active participation of universities in R&D activities with industrial organizations and research centers.”

Minister of Foreign Affairs Mevlüt Çavuşoğlu, Minister of Treasury and Finance Lütfi Elvan, Minister of Industry and Technology Mustafa Varank, Minister of Transport and Infrastructure Adil Karaismailoğlu, Minister of Agriculture and Forestry Bekir Pakdemirli, Governor of Istanbul Ali Yerlikaya, Head of Communication Fahrettin Altun, AK Party Deputy Chairman Numan Kurtulmuş, AK Party Deputy Chairman Mahir Ünal, AK Party İzmir MP Binali Yıldırım, AK Party Istanbul Provincial Chairman Bayram Şenocak also attended the program.