

## EMU ENGINEERING FACULTY DEVELOPS A DEVICE PRESENTING THE SPREAD OF THE VIRUS



Eastern Mediterranean University (EMU) Engineering Faculty vice Dean Assist. Prof. Dr. Davut Solyalı created a device prototype resembling a virus in order to prevent the spread of the virus during these difficult times affecting the whole world. The device, which breaks down the DNA structure of the virus through UVC rays, completely purifies a classroom of 80 square meters from the virus within a maximum of 20 minutes. Such devices, which are produced with a very mature and proven technology, are used in many countries, especially in hospitals.

Being used in hospitals around the world, especially in intensive care and/or operating rooms, this technological device has been adapted for use in classrooms. It is thought that the device, which was developed in the laboratories of the Faculty of Engineering by completely using the resources of EMU, can be used in many areas in our country. It is produced with a technology that has the capacity to disinfect an average classroom in a certain period of time in universities, high schools, secondary schools and primary schools. In face-to-face training, it is foreseen

that the cleaning to be done by using chemicals required at certain intervals will be minimized and a healthier environment can be provided.

### One Hundred Percent Home Production

Explaining the working principles of the device in a practical way, Assist. Prof. Dr. Solyalı said: "In order to combat the coronavirus (Covid-19) pandemic which threatens the world, the countries of the world are applying various protection measures. While chemical sterilization is applied especially in indoors within the scope of the measures, many countries resort to alternative disinfection methods due to the side effects arising from chemical use.

Disinfection which is done through ultraviolet (UV-C) light without the need for any chemicals, leaves no residue and it is a method used for disinfection of liquid, air and surfaces. It is generally used for disinfection of work surface and ambient air. Within this context, we produced a UV-C ventilation disinfection device prototype within the body of the Faculty of Engineering. The device

creates air circulation in the closed room where it is installed. During circulation, "dirty" air containing viruses and/or bacteria, etc. passes through the device and is exposed to intense UVC radiation. DNA structures of viruses and other organisms exposed to sufficient doses of radiation are disrupted and their reproduction is both prevented and rendered ineffective.

The device, which can be controlled with a remote control, is mounted in the room by hanging it at a certain height from the ceiling. It does not need any maintenance other than dust filter replacement, which is very cost-effective and it does not use any chemical materials.

Since the device does not transmit harmful radiation, it can be used safely in any environment. The engineering of the device was carried out within the framework of the USA Ventilation and Disinfection Standards and, its production was carried out in EMU laboratories using local materials and facilities. It is domestic production therefore it is much lower cost than its counterparts in other countries.



# EMU-CPC CHAIRMAN PROF. DR. AHMET SÖZEN ATTENDS PAN-EU CONFERENCE

Eastern Mediterranean University Cyprus Policy Center (EMU-CPC) Chairman and EMU Business and Economics Faculty, Political Science and International Relations Department Head Prof. Dr. Ahmet Sözen and EMU-CPC research fellow Devrim Şahin attended to the 14th Pan-European Conference on “The Power Politics of Nature” where they presented their studies. The international conference which is organized by the European International Studies Association (EISA) and was initially planned to take place in Malta in September 2020, was held online between the 13 and 17 September 2021 due to the pandemic. 4-day event attracted interest of many participants from different countries all over the world. Numerous panels, meetings and workshop was held within the scope of the event.

## Safety Threats in Eastern Mediterranean

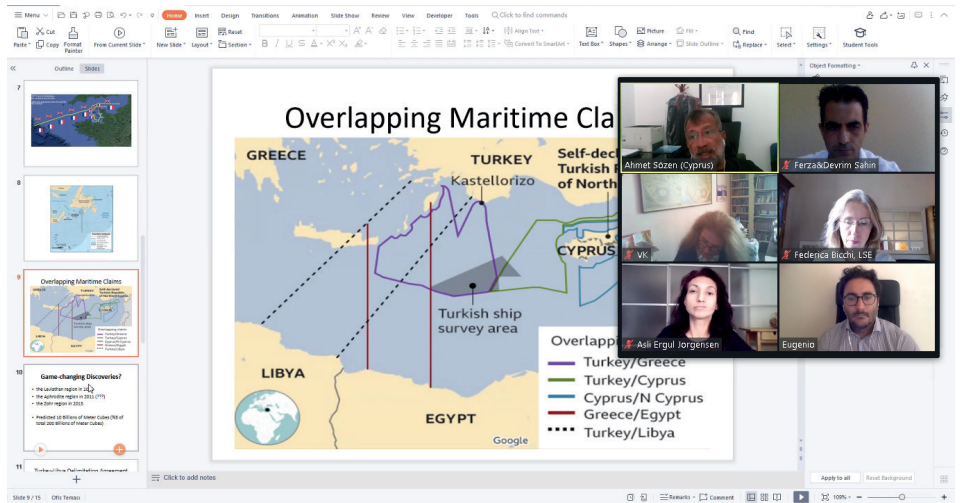
“Delivering a speech during the “Re-exploring the Mediterranean: Identity, Politics, Safety” panel, Prof. Dr. Sözen stated that in the Eastern Mediterranean, a zero-sum game is played in which one player’s gain is the other’s loss, but a way where everyone can win must be challenged. Prof. Dr. Sözen claimed that the strategies and tactics followed by the actors involved in the competition on the sharing of maritime jurisdictions and hydrocarbon resources in the Eastern Mediterranean turned into a multiplayer chess game on the submarine gas energy resources in the region. Noting that the overlapping legal claims on the delimitation of maritime jurisdictions reveal the division of international law, Prof. Dr. Sözen pointed out that in order to overcome this, all relevant actors must come together at the international unofficial

natural gas conference and initiate the dialogue process, otherwise the polarization in the region will deepen.

## Sovereignty, International Law and Order

EMU-CPC research fellow Devrim Şahin delivered a speech during the “International Society” panel and drew attention to the need for a more sensitive and comprehensive framework of international law that could meet the pluralistic demands and security concerns of a pluralistic global society. Emphasizing that the conflicts starting from the Balkans in the 90s with Syria, Afghanistan and Libya to the present day, and the refugee flows that emerged similar to the “migration of tribes” in the history caused by these, Şahin emphasized that the new threats are the result of the transnational

nature of the COVID-19 pandemic and climate change. Şahin claimed that the inability to control transnational threats such as the international crisis once again shows how fragile the current international legal system is. While many nations have implemented various isolation policies to protect their people, Şahin cited the spread of infections from other countries that did not apply the same measures simultaneously when they went to re-open. Pointing out that at this point, it has emerged that new threats of a transnational nature cannot be prevented by national or local policies, Şahin emphasized the urgency and inevitability of global-level coordination and early warning mechanisms that will prevent them at their roots before they spread.



## IMPORTANT CONFERENCE ON WAR, PEACE AND STATE BUILDING

Eastern Mediterranean University Cyprus Policy Center (EMU-CPC) and EMU Business and Economics Faculty Political Science and International Relations Department organized a discussion panel in collaboration with University of Vienna, Austria. The panel took place on Tuesday, the 21st of September, 2021 at EMU with its theme being “War, Peace and State Building”. EMU-CPC Chairman Prof. Dr. Ahmet Sözen and, Prof. Dr. Irene Etzersdorfer and Dr. Mag. Ralph Janik from University of Vienna attended the event as speakers.

Following the introducing sessions of the speechmakers to the audience, Prof. Dr. Sözen delivered the opening speech of the panel and made a historical assessment of the Cyprus talks that were held on different grounds and places with various diplomatic methods and political leaders. Stating that the Switzerland meeting in 2016 holds a crucial role as a turning point, Prof. Dr. Sözen said that non-federation solutions came to the agenda due to South Cyprus not being ready to move further. Moreover, Prof. Dr. Sözen added that he was not sure whether Turkey was uncompromising in its two-state

solution thesis or was trying to persuade the Greek side to a bi-communal and bi-zonal federation.

Following Prof. Dr. Sözen’s speech, Prof. Dr. Etzersdorfer argued that political aims and objectives are a distinctive feature of war, and that this character of war actually distinguishes it from other individually targeted criminal acts, traditionally viewed as a continuation of policy, i.e. one state to persuade or compel another state to act in accordance with its own choices. Prof. Dr. Etzersdorfer also stated that it means using some violent means. Referring to the emergence of the United Nations Convention and the concepts of international society in 1945 and the prohibition of interstate war, Prof. Dr. Etzersdorfer explained that because of this transformation in the political organization of the international structure, interstate wars can no longer be used as a continuation of politics, but this time many civil wars have emerged.

Taking over after Prof. Dr. Etzersdorfer, Dr. Janik interpreted this transformation in the nature of wars at the level of international law. Emphasizing the

importance of this transformation, which brings with it transnational events that concern the whole world, such as refugee flows, Dr. Janik said that the legal regulations regarding civil wars and unmanned aerial vehicles are incomplete, the underlying reason is that international law does not regulate non-state wars, that it may take decades for the international community to come to an agreement on the definition of civil wars and adapt it to international law in a way that it can regulate civil wars.





## EMU FACULTY OF PHARMACY DEAN RELEASES A STATEMENT ON 25 SEPTEMBER WORLD PHARMACISTS DAY

Eastern Mediterranean University (EMU) Pharmacy Faculty Dean Prof. Dr. Müberra Koşar made a statement on the occasion of 25 September – World Pharmacists Day. Prof. Dr. Müberra Koşar's statement is as follows:

“In a time period, where the whole world is struggling with the Covid-19 pandemic, the importance of health personnel and investments in health can be observed once again. We bow respectfully in the presence of all health personnel, especially our colleagues, Pharmacists, who we lost during this pandemic.

Today, 25th of September, is World Pharmacists Day. During the International Pharmacy Federation (FIP) 69th World Pharmacy Congress held in Istanbul between the 3rd and 8th of September, 2009, it was proposed to celebrate the founding date of FIP, which was founded on 25 September, 1912 by the delegation of the host Turkish Pharmacists Association (TEB), as “World Pharmacists Day”. At the same meeting, the FIP delegation unanimously accepted this proposal and formally notified all countries of this decision. For this reason, since 2009, 25th of September is celebrated as the World Pharmacists Day all over the world.

This date was first noted by the history of pharmacy expert Assoc. Prof. Dr. Halil Tekiner who suggested celebrating World Pharmacists Day in his article titled “When Shall We Celebrate an International Pharmacy Day?” published in the September 2009 issue of the British pharmacy history journal, Pharmaceutical Historian. Pharmacy profession and pharmacists are the most important building blocks of the primary

health care sector. Pharmacists, who know their patients from their daily life, serve as health consultants. Drug use, presentation of the drug to the patient and counseling service is a process that requires great attention and should be followed carefully. Unfortunately, even today, unconscious drug use is common in society, with the advice of neighbors or friends. This behavior is very harmful both in terms of public health and economics. The importance of the pharmacy profession is better understood. Herbal teas or cosmetic products used for treatment can be at least as harmful as drugs. For this reason, it is very important to buy such products from pharmacies under the advice of a pharmacist, to protect our health. Because pharmacists are the only professional group that receives all scientific training on such products. In this respect, Pharmacies and Pharmacists are the most reliable health institutions and their members providing uninterrupted public service.

Pharmacy is the only professional group that has the authority to take charge and control at all stages from the production of pharmaceutical raw materials to the final product. In our country, the drug production authority belongs only to the pharmacist. Our profession, which is at the base of the physician-patient-pharmacist triangle, is also a social profession working for public health. Today, pharmacy ceases to be a mortar pharmacy and continues to serve in many new fields such as clinical pharmacy, research pharmacy and pharmaceutical production and marketing sector pharmacy. Clinical Pharmacists are employed in health institutions in order to prevent misuse of drugs and to prevent material and moral



damage caused by drug use. Moreover, nowadays many diseases that threaten public health are emerging. The importance of drug R&D and pharmacist is seen once again in the development of new drugs to be used for the treatment of such illnesses. Today, pharmaceutical production sectors prefer Pharmacists both in production and marketing of the produced drug.

I would like to congratulate all our Pharmacists and Pharmacist candidates who provide this important and indispensable social health service even in the most difficult conditions we are in, and wish to celebrate many more Pharmacists Days together where we receive the value and importance we deserve.”



# EMU DR. FAZIL KÜÇÜK MEDICINE FACULTY MEMBER RELEASES STATEMENT ON WORLD ALZHEIMER'S DAY

Eastern Mediterranean University (EMU) Dr. Fazıl Küçük Medicine Faculty member and Neurology Specialist Assoc. Prof. Dr. Amber Eker Bakkaloğlu released a statement on the occasion of 21 September, World Alzheimer's Day. The statement is as follows:

## "Know Your Dementia, Know Your Alzheimer's"

"September is regarded as Alzheimer's month and the 21st of September is regarded as the Alzheimer's Day all around the world. Various events and activities are organized during the month of September with the intention of awareness raising among the society. This year's theme for awareness month has been set as "Know Your Dementia, Know Your Alzheimer's".

Forgetfulness is a common complaint of many people from different age groups. A significant part of the complaints of people, especially young people, who complain of forgetfulness are caused by treatable causes such as vitamin deficiencies, especially B12, thyroid disorders and depression. These causes, which can be treated in people with forgetfulness, should be reviewed as a priority. In order for a forgetfulness to be diagnosed as dementia, it must lead to cognitive losses that affect the activities of daily living that people normally do easily. Dementia is one of the biggest causes of disability and dependency in elder population worldwide. Like other diseases, there are also different types of dementia.

Alzheimer's disease is the most common cause of dementia. The incidence of Alzheimer's disease increases over the years with aging populations. According to the World Health Organization, there are 50 million dementia patients all over the world, and the frequency between 2030 and 2050 is predicted to reach 82 million and then 152 million. If we analyze the situation on our island, estimated figures including only the South part of the Cyprus have been reported in so far. In Alzheimer's Europe-2012, an estimated 11,250 dementia patients were reported in Southern Cyprus. The estimated number of people with dementia in Northern Cyprus, which we calculated in the light of the percentages in the world, is 2,700. The data, which was determined by the face-to-face screening of the society for the first time across the whole island, was obtained with the study carried out last year in cooperation with our Faculty and Famagusta Municipality. In this study, screening tests in terms of dementia were applied to randomly selected people among the people over the age of 65 living in the Famagusta region to reflect the society. According to the results of the study, 40% of the people included in the study were found to have a cognitive disability according to the screening tests. More interestingly, more than half of people with cognitive impairment were unaware of the condition themselves or their families. These findings show us that Alzheimer's disease is an important and common disease in our society, and recognizing the

disease is the most important step to be taken for its diagnosis. The earliest symptom of Alzheimer's disease is memory impairment regarding recent actions. Being able to remember the older memories should not mislead us. In addition to memory problems, symptoms such as difficulty in dressing, eating, and using tools, which are acquired skills in normal life, personality and behavioral changes, disorders in using language, understanding speech, inability to find a way, inability to calculate, introversion and having vivid dreams can be observed. Being familiar with these symptoms is very valuable for early diagnosis of the disease. We know that early diagnosis and treatment contribute positively to the course of the disease.

The most important risk factor for the Alzheimer's disease is age. It has been reported that 1 in 8 people over 65 years old and nearly 1 in every two elders are diagnosed with the disease. Having a family member with dementia can also increase the risk. Although these are uncontrollable risk factors today, another issue to keep in mind is that there are risk factors that we can control. Dementia occurs more easily and earlier in people with low education level and who have intense vascular risk factors such as diabetes, hypertension, high cholesterol, smoking, obesity, and the course is adversely affected. Preventing these risk factors that we can control is very important for a better course of the disease."

## This Week's Academic Publications

Source: Web of Science

### Faculty of Business & Economics

- 1- Balçilar, M., Gabauer, D., & Umar, Z. (2021). Crude Oil futures contracts and commodity markets: New evidence from a TVP-VAR extended joint connectedness approach. *RESOURCES POLICY*, 73. <https://doi.org/10.1016/j.resourpol.2021.102219>
- 2- Abdalla, M. J., Said, H., Ali, L., Ali, F., & Chen, X. (2021). COVID-19 and unpaid leave: Impacts of psychological contract breach on organizational distrust and turnover intention: Mediating role of emotional exhaustion. *TOURISM MANAGEMENT PERSPECTIVES*, 39. <https://doi.org/10.1016/j.tmp.2021.100854>
- 3- Balçilar, M., Usman, O., Gungor, H., Roubaud, D., & Wohar, M. E. (2021). Role of global, regional, and advanced market economic policy uncertainty on bond spreads in emerging markets. *ECONOMIC MODELLING*, 102. <https://doi.org/10.1016/j.econmod.2021.105576>

### Faculty of Engineering

- 1- Sayi, C. O., & Eren, O. (2021). Physical and durability properties of recycled polyethylene terephthalate (PET) fibre reinforced concrete. *EUROPEAN JOURNAL OF ENVIRONMENTAL AND CIVIL ENGINEERING*. <https://doi.org/10.1080/19648189.2021.1976681> (Early Access)
- 2- Guler, M. (2021). Multibranch Formal Neuron: An Internally Nonlinear Learning Unit. *NEURAL COMPUTATION*, 33(10), 2736–2761. [https://doi.org/10.1162/neco\\_a\\_01428](https://doi.org/10.1162/neco_a_01428)
- 3- Sahmani, S., Safaei, B., & Aldakheel, F. (2021). Surface

elastic-based nonlinear bending analysis of functionally graded nanoplates with variable thickness (vol 136, 676, 2021). *EUROPEAN PHYSICAL JOURNAL PLUS*, 136(9). <https://doi.org/10.1140/epjp/s13360-021-01895-x>

### Faculty of Pharmacy

- 1- Gulcan, H. O., & Orhan, I. E. (2021). Amendatory Effect of Flavonoids in Alzheimer's Disease Against Mito-chondrial Dysfunction. *CURRENT DRUG TARGETS*, 22(14), 1618–1628. <https://doi.org/10.2174/1389450122666210120144921>
- 2- Vahedi, P., Moghaddamshahi, R., Webster, T. J., Calikoglu Koyuncu, A. C., Ahmadian, E., Khan, W. S., Jimal Mohamed, A., & Eftekhari, A. (2021). The Use of Infrapatellar Fat Pad-Derived Mesenchymal Stem Cells in Articular Cartilage Regeneration: A Review. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*, 22(17). <https://doi.org/10.3390/ijms22179215>

### Faculty of Arts & Sciences

- 1- Fahad, H. M., Rehman, M. U., & Fernandez, A. (2021). On Laplace transforms with respect to functions and their applications to fractional differential equations. *MATHEMATICAL METHODS IN THE APPLIED SCIENCES*. <https://doi.org/10.1002/mma.7772> (Early Access)
- 2- Fernandez, A., & Djida, J.-D. (2021). Fractional differential relations for the Lerch zeta function. *ARCHIV DER MATHEMATIK*. <https://doi.org/10.1007/s00013-021-01654-5> (Early Access)

### Faculty of Health Sciences

- 1- Senturk, Y., Kirmizigil, B., & Tuzun, E. H. (2021). Effects of clinical Pilates exercises on cardiovascular endurance and psychosomatic parameters on primary caregivers of special needs children: A randomized controlled trial. *JOURNAL OF BACK AND MUSCULOSKELETAL REHABILITATION*, 34(5), 853–864. <https://doi.org/10.3233/BMR-191649>
- 2- Yurt, Y., Yatar, I., Malkoc, M., Yakut, Y., Mihcioglu, S., & Koltak, C. (2021). The effect of brace treatment on pulmonary functions in adolescent idiopathic scoliosis: An 8-month follow-up study. *JOURNAL OF BACK AND MUSCULOSKELETAL REHABILITATION*, 34(5), 887–893. <https://doi.org/10.3233/BMR-200195>

### Faculty of Tourism

- 1- Abdalla, M. J., Said, H., Ali, L., Ali, F., & Chen, X. (2021). COVID-19 and unpaid leave: Impacts of psychological contract breach on organizational distrust and turnover intention: Mediating role of emotional exhaustion. *TOURISM MANAGEMENT PERSPECTIVES*, 39. <https://doi.org/10.1016/j.tmp.2021.100854>

### Faculty of Communication and Media Studies

- 1- Arslan, S. A., Kara, N., & Duranay, H. I. (2021). Women's movements for the elimination of violence against women: lessons from oral history of the Law 4320 in Turkey. *POLICY STUDIES*. <https://doi.org/10.1080/01442872.2021.1977263> (Early Access)



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