

TÜBA and TÜBİTAK Science Awards Ceremony



The “TÜBA and TÜBİTAK Science Awards Ceremony”, organized jointly by TÜBA and the Scientific and Technological Research Council of Türkiye (TÜBİTAK) under the auspices of the Presidency, was hosted by President Recep Tayyip Erdoğan. Minister of Industry and Technology Mehmet Fatih Kacır, TÜBA President Prof. Muzaffer Şeker, TÜBİTAK President Prof. Orhan Aydın, rectors from different universities, award-winning academics and their families attended the ceremony held at Beştepe National Congress and Culture Center with the participation of President Recep Tayyip Erdoğan.

We are taking firm steps towards the goal of the era leading Türkiye.

In his speech at the ceremony, President Erdoğan said, “We are taking firm steps towards the goal of a great and powerful Türkiye that leads the era, rather than lagging behind it. We do not want to be satisfied with the successes that come and burst like soap bubbles. As a

country and a nation, we stand firm on the ground and take steady steps. We make our plans for the medium and long term. We are in a much better position today compared to 2002.”

We are presenting these awards to 25 young scientists.

“Stating that a total of 7 works were deemed worthy of awards within the scope of TÜBA-TESEP, including four Scientific Copyright Awards, one Halil İncelik special award, one Kemal Karpaz special award and one jury special award, Erdoğan said, “Thus, we have given TÜBA TESEP awards to 246 Turkish scientific copyright works so far. Our TÜBA Outstanding Young Scientist Awards stand out as one of the first and most unique examples of the formation of a young academy in the world. This year, we are presenting these awards to 25 young scientists conducting scientific studies at 20 different universities.”

President Erdoğan shared the information that the number of young

scientists who have won TÜBA GEBİP awards since 2001 increased to 669 and continued as follows: “We are presenting TÜBA International Academy Awards in three different categories to 4 distinguished scientists who have distinguished themselves with their original, pioneering and groundbreaking works at the international level. Together with these 4 names, we will present TÜBA International Academy Awards to a total of 32 pioneers of science. To date, 947 scientists have received TÜBA awards, which fill an important gap in the field of international science diplomacy.

The history of science is also a cemetery of unfinished works.

Recalling Avicenna’s (Ibn Sina) words “Science and art migrate from where they are not appreciated” and the words of our ancestors “‘Skill is subject to praise, without praise, goods are wasted”, Erdoğan emphasized that every work that is not appreciated, not



rewarded, and not honored, although it does not lose anything of its original values, cannot have the desired effect in terms of reaching the masses.

Erdoğan said, “When we look at our personal lives and the journey of societies, we see how valuable encouragement and recognition are, especially when it comes to milestones. Many projects and ideas that had the potential to be groundbreaking have failed because they did not find support in time and have been relegated to the dusty shelves of history. In this respect, the history of science is also the graveyard of unfinished and incomplete works.” Stating that for many years science and technology in Türkiye was seen as a field of endeavor limited to the means of a handful of idealistic people with curiosity and enthusiasm, Erdoğan said the following:

“I have to emphasize here that although we are in an exceptional position in the world in terms of scientific accumulation, we are also a country that is very late in terms of its institutionalization. Many societies that are ahead of us today in terms of academic productivity have established science academies that have received the support of the state, institutionalized and gathered basic science disciplines under the same roof long before us. For example, a significant number of science academies in Europe were established in the 17th century.”

Stating that there were scientists working in various fields before the academy of sciences was established, Erdoğan said, “Even until the 18th century, it was the scientists and thinkers who grew up in the eastern civilization, the Turkish-Islamic world, who influenced, guided and fed European civilization. However, as a result of not being able to read the essence of the new era correctly, the inability to continue the process brought about regression.”

Mehmet Fatih Kacır, Minister of Industry and Technology, stated that they will continue to develop their capabilities in groundbreaking technologies in the coming period and said, “We will carry our country to the position it deserves in the world in science and technology with many steps we take from nuclear reactors to quantum technologies, from strategic materials to climate technologies and from critical raw materials to synthetic biology.”

Stating that the paradigms of the old world have collapsed and it is still unclear on which foundations the new world will rise, Kacır said, “We are members of a faith that considers scientific activities as worship and invites people to knowledge, information and learning. We are the heirs of an understanding of science and civilization based on reason, reasoning and contemplation. The important works put forward by valuable personalities who have been

the minds of our civilization are proof of the intellectual and scientific vitality we had in different periods of history.”

We supported 91 thousand scientists as well as young people.

Pointing out that in the last 22 years, the country ranked 12th in the world in patent applications and 2nd in design applications, Kacır shared the following information: “We have increased our industrial property portfolio from 93 thousand to more than 2 million. With the effective incentive system we have created, we have built a strong infrastructure that will pave the way for R&D and innovation-oriented development. Today, more than 11 thousand technology initiatives in our 104 technoparks, and our entrepreneurs carry out innovative works with our R&D and design centers established within the companies and exceeding 1600 in number. The increase in our annual R&D expenditures from 1.2 billion dollars to 16 billion dollars and the increase in the number of R&D personnel from 29 thousand to 291 thousand is an indicator of where our innovation capacity has reached. In a period when the level of welfare and competitiveness of countries is determined by the level of ownership of scientific studies and technological innovations, TÜBİTAK continues to ensure that all segments of society meet science. In 2002, TÜBİTAK supported 1167 R&D projects with 1.5 billion liras in today's value,

and this year, we have contributed 9 billion liras to 9 thousand 988 R&D projects. The number of companies benefiting from TÜBİTAK supports increased twelve-fold to 2 thousand 769. In 2002, approximately 1,000 scientists and young people benefited from TÜBİTAK's support, whereas this year we provided support to 91,000 scientists and students."

Our scientists give us confidence.

Stating that Türkiye will achieve its 2053-2071 goals with the intense efforts and sacrifices of scientists, TÜBA President Prof. Muzaffer Şeker drew attention to the importance of the guidance of science in shaping Türkiye's future while building the "Vision of Turkish Century".

We continue to defend Palestine's rights in the international academic world with declarations and reports in different languages.

Stating that President Recep Tayyip Erdoğan stands against the inhumane, separatist, and anti-social propaganda carried out over the oppressed people fleeing from oppression and taking refuge in Türkiye, President Şeker thanked President Erdoğan for standing by humanity on all international platforms on behalf of TÜBA and not giving up on the just cause and said, "Israel continues to commit systematic genocide in Gaza, where the whole world closes its eyes and turns its back. What kind of a global dirty cooperation and imperial oppression order is there; artists cannot speak, journalists cannot write, academics cannot express their opinions. Artists and journalists who speak lose their jobs and academics lose their desks. Concepts such as freedom of thought and freedom of expression are shelved when discussing Israel's war crimes. As TÜBA, we continue to defend the rights of Palestine in the international academic world with the declarations and reports we have prepared in different languages."

We have to protect the family.

Prof. Şeker stated that Türkiye has to protect the family and young people from global disinformation to entrust its strong and honorable stance in the international arena to future generations. He stated that families and the concept of family are under attack all over the world more intensely than ever before. He said that the systematic attacks against the family are the reflections of social engineering that aims to destroy the family, social solidarity, ignore human values and sanctities, and create selfish individuals who are addicted to gratification and pleasure.

He continued his speech by mentioning the use and effects of social media, which has been on the agenda in recent years: "We can only decisively fight this organized evil, which has the opportunity to spread rapidly with virtual information and documents based on 'digital ignorance' in the dark depths of social media. For this, non-governmental organizations and scientists have a great duty as well as decision-makers. It is important to develop strategies and raise awareness with the knowledge that artificial intelligence technologies offer a wide range of risks and opportunities from the security of personal data to commercial, political and social security at the international level and based on national security. Our current research and reporting continues through our working groups to investigate the social effects of the rapid transformation in information technologies, especially social media, and the ethical problems caused by artificial intelligence."

He ended his speech by giving information about the programs and projects, science diplomacy activities and publications of the Academy.

We provide consultancy to our parliament, ministries and affiliated organizations, universities, young scientists and non-governmental

organizations, especially the Presidential Strategy and Budget Presidency, by bringing together stakeholders on current issues, as in other examples of science academies in the world, with multidisciplinary scientific activities and reports. We effectively represent our country in the international arena, especially in the Science-20 group at the G20 summit, within the framework of science diplomacy. We clearly demonstrate our country's ethical and humanitarian stance based on social justice and equality in every scientific meeting. As TÜBA, we pay special attention to the Turkic World. TÜBA holds the presidency of the Union of Science Academies of the Turkic World; similarly, a member of TÜBA was elected as the president of the Union of Asian Science Academies and is currently serving in this capacity. With the responsibility of being Türkiye's national, autonomous academy of sciences, we continue our efforts to build the future with our ethical and qualified young scientists with high self-confidence and hope, who work for the independence and prosperity of the country, believe in their country, protect their values, understand the importance of family-society relations, and educate themselves. We would like to express our gratitude to you for the award programs and the Turkish-Islamic Science Culture Heritage Project that we carry out under your auspices."

Before the award ceremony held at the Külliye, President Şeker presented the certificates to the winners of the TÜBA Science Awards with an organization held at The Ankara Hotel. Prof. Muzaffer Şeker congratulated the awardees at the ceremony attended by TÜBA members and the families of scientists and welcomed them to the TÜBA family.

61st General Assembly



The Academy's 61st General Assembly and General Assembly Conference was held on Saturday, December 21 at The Ankara Hotel with the participation of TÜBA members, rectors and heads of institutions.

The General Assembly program, which was attended by TÜBA members and TÜBİTAK President Prof. Orhan Aydın, opened with the welcoming speech of TÜBA President Prof. Muzaffer Şeker and started with the address of Deputy Minister of Industry and Technology Muhammet Kasım Gönüllü.

The work of our scientists not only on national but also on international platforms is a great source of pride for us

Muhammet Kasım Gönüllü, Deputy Minister of Industry and Technology of the Republic of Türkiye, started his speech by stating that every study, report and recommendation of the Academy is

a guiding compass for decision-makers, and continued as follows "Our world has been going through great challenges in recent years. Environmental crises, climate change, natural disasters and regional conflicts threaten not only countries but also the common future of humanity. The only way to overcome these challenges is to act with scientific data, develop sustainable solutions and strengthen international cooperation. TÜBA's work on critical issues of our time such as environment, climate, biodiversity, information technologies and sustainable development contributes greatly to the scientific and strategic goals of our country. In particular, the Palestine Report stands out as a powerful document showing the conscientious stance of science to the world. This study is one of the concrete examples of the fact that scientists do not give up speaking out for the truth, and at the

same time, it has become the voice of humanity. The work of our scientists not only on national but also on international platforms is a source of great pride for us. TÜBA's active role in the Science20 Meetings within the scope of the G20 summit, in umbrella organizations such as the Association of Asian Science Academies, the Association of European Science Academies, and especially the Association of Science Academies of the Turkic World, and sending members to working groups and boards of directors carry our country further in the field of science diplomacy." He said that TÜBA's programs and projects, international studies, publications and support are very valuable.

He stated that TÜBA's work, which is carried out by protecting its scientific autonomy and independence, is an indicator of how appropriate this awareness is. Referring to the TÜBA-



Prof. Dr. Muhammed Zeki Durak



Prof. Dr. Yusuf Sinan Akgül



Prof. Dr. Fatih Andi

Prof. Dr. Muzaffer Elmas

Prof. Dr. İsmail Koyuncu



Prof. Dr. Halit Keskin

Prof. Dr. İlkey Erdoğan Orhan

Prof. Dr. İzzet Özgenç

Prof. Dr. Mustafa Safran

TÜBİTAK Science Awards ceremony, Mr. Kasım Gönüllü said that as expressed by our President at the Award Ceremony; “Every work that is not appreciated, not rewarded, and not treated with kindness, although it does not lose anything of its original value, unfortunately, cannot create the desired effect in terms of reaching wide audiences. He said that this statement reminded once again how important it is for science and scientists to be appreciated. He underlined that they will work under the guidance of scientists to bring all parts of Türkiye together with new investments and to create works that will make the second century of the Republic as ‘Türkiye Century’.

Plenary conferences on artificial intelligence and industrial property

In his speech “Industrial Property and Academic Life”, Prof. Muhammed Zeki Durak, President of the Turkish Patent and Trademark Office, emphasized the importance of intellectual capital, industrial property ecosystem and its performance in Türkiye. He

elaborated on the role of industrial property in the academic world and the commercialization of academic inventions. He gave information about the strategies and statistics on the subject. In his speech, he also explained the work of the Turkish Patent and Trademark Office.

Prof. Yusuf Sinan Akgül, Dean of the Faculty of Engineering at Gebze Technical University, started his speech “Artificial Intelligence and its Effects on Higher Education Risks and Opportunities” by answering what artificial intelligence is. He talked about the increasing digitalization and artificial intelligence applications and fields in higher education, especially during the pandemic process. He talked about the advantages and problems caused by artificial intelligence.

As a result of the voting at the General Assembly, Prof. Muzaffer Elmas, newly elected member Prof. İsmail Koyuncu, Prof. İlkey Erdoğan, Prof. İzzet Özgenç, Prof. Fatih Andi, Prof. Mustafa Safran,

Prof. Halit Keskin will serve in the next 3-year term of the Academy Council.

Prof. Sezgin Bakırdere from Yıldız Technical University (YTÜ), Prof. Taşkın Kavzoğlu from Gebze Technical University (GTU), Prof. Zafer Evis from Middle East University (METU), Prof. Nurettin Şahiner from Çanakkale Onsekiz Mart University and Prof. Ahmet Can Altunışık from Karadeniz Technical University (KTÜ) were elected as Associate Members.

In 2023, Prof. Erol Arcaklıoğlu, Prof. Mustafa Şahmaran, Prof. Ali Rıza Yıldız, Prof. Şener Aktürk, Prof. Ali Balcı, Prof. Ertuğrul Başar, Prof. Esra Çapanoğlu Güven, Assoc. Prof. Engin Durgun, Assoc. Prof. Mustafa Evren Erşahin, Prof. Bahar Güntekin, Prof. Şaban Nazlıoğlu, Assoc. Prof. Mustafa Serdar Palabıyık and Prof. Mustafa Yücel received their membership certificates from President Şeker.

The General Assembly ended after the general assembly presentation by Prof. Muzaffer Şeker, President of TÜBA, and the submission of opinions and wishes.



Prof. Dr. Sezgin Bakırdere

Prof. Dr. Taşkın Kavzoğlu

Prof. Dr. Zafer Evis

Prof. Dr. Nurettin Şahiner

Prof. Dr. Ahmet Can Altunışık

2024 TÜBA-TEKNOFEST Doctoral Science Awards Found Their Owners



TÜBA-TEKNOFEST Doctoral Science Awards were presented by President Recep Tayyip Erdoğan at TEKNOFEST, Türkiye's largest Aviation, Space and Technology Festival, of which TÜBA is one of the stakeholders.

President Recep Tayyip Erdoğan presented the awards to the winners at TEKNOFEST Adana, where science and technology enthusiasts meet. Stating that young people are the hope of Türkiye, President Erdoğan said, "TEKNOFEST shows us very clearly that foreign dependency, assembly, and living in need of others is not the destiny of our country. Remember, young people, TEKNOFEST is a youth epic, TEKNOFEST is a technology revolution. TEKNOFEST is the strong voice of idealistic youth sprouting in fertile Anatolian soil."

In the program, which was established to encourage, support and honor doctoral dissertations that stand out in order to increase qualified human resources trained in all fields, the awards found their owners for the 4th time.

Dr. Sercan Aygün in the field of Science and Engineering Sciences, Dr. Tuğrul Cabir Hakyemez in the field of Social Sciences and Humanities, Dr. Nadir Yalçın in the field of Health and Life Sciences, and Dr. Recep İşçi in the field of Basic Sciences, the winners of the TÜBA-TEKNOFEST Doctoral Science Awards program, were presented their awards by President Recep Tayyip Erdoğan.

Speaking on October 5 at the certificate presentation ceremony held for all award winners at TEKNOFEST, Minister of Industry and Technology Mehmet Fatih Kacır underlined that TEKNOFEST PhD Science Awards were given to original theses written in 4 main branches on Türkiye's priority issues as a result of a meticulous evaluation and congratulated the winning scientists. TÜBA President Prof. Muzaffer Şeker stated that theses in the field of basic sciences were also awarded for the first time in the award program, and drew attention to the importance of supporting and appreciating young scientists as the

TÜBA family in terms of academic motivation and scientific development.

In addition to the first prize winners of the program, whose awards were presented by President Erdoğan, the second prize winners were Dr. Doğa Doğanay in the field of Science and Engineering Sciences, Dr. Sinan Okur in the field of Social Sciences and Humanities, Dr. Esra Bulut Atalay and Dr. Esra Atalay Şahar in the field of Health and Life Sciences, Dr. Zafer Eroğlu in the field of Basic Sciences, and Dr. Zafer Eroğlu in the field of Basic Sciences. Dr. Semih Doğu in the field of Science and Engineering Sciences, Dr. Şeyma Çağlar Özhan in the field of Social Sciences and Humanities, Dr. Ece Güler in the field of Health and Life Sciences, and Dr. Çağla Çelik in the field of Basic Sciences were presented their award certificates by the Minister of Industry and Technology Mehmet Fatih Kacır and President Şeker.

In the TÜBA - TEKNOFEST Doctoral Science Awards Program, doctoral dissertations completed and defended in the last 2 years on "Technology and Design, Information and Communication Technologies, Education, Health, Agriculture and Ecology Technologies and Biotechnology, International Relations, Development Policies, Educational Approaches, Security Policies of the National Technology Move", which have been shown as priority areas of TEKNOFEST, are awarded.



6th AASSA General Assembly and Symposium



Prof. Ahmet Nuri Yurdusev, President of the Association of Asian Scientific Academies and Societies (AASSA) and Full Member of TÜBA, and Prof. Ertuğrul Kılıç, Full Member of TÜBA, attended the AASSA General Assembly and International Symposium in Manila, Philippines with the support of the National Academy of Science and Technology of the Philippines (NAST PHL), InterAcademy Partnership (IAP) and the Department of Science and Technology of the Philippines (DOST).

As a result of the voting at the General Assembly, which convened for the first time under the chairmanship of Prof. Yurdusev; Satryo Soemantri Brodjonegoro from the Indonesian

Academy of Sciences, Muhammad Riza Shams Arkedani from the Iranian Academy of Sciences, Narinder K. Mehra from the Indian Academy of Sciences, Frances Separovic from the Australian Academy of Sciences, Satake Kenji from the Japan Science Council, Dohan Kim from the Korean Academy of Science and Technology, B. V. R. Chowdari from the Singapore Academy of Science, Pavel Krestow from the Russian Academy of Sciences and Dilip Subba from the Nepal Academy of Science and Technology were elected as members of the AASSA Board of Directors for the 2024-2027 period.

Prof. Kılıç made a presentation titled Digital Transformation in the Turkish Health System at the international

symposium on “Digital Transformation in Healthcare”, which is planned to introduce the digital healthcare ecosystem, present trends, experiences and successful initiatives between developed and developing economies, evaluate the impact of digital transformation on patient management and quality of care, medical education and health workforce development, identify common issues and concerns in Asia, and provide recommendations for the digital transformation process in health. “Of course the government should bear the cost of digital transformation. Türkiye’s health care process has been completely digitalized. The e-Nabız Personal Health System, for example, has been enabling Turkish citizens to access their digital health records since 2015. This system draws information from more than 1500 hospitals and 9000 health centers.” He mentioned that Türkiye’s digital transformation roadmap, which started in 2004 with the Health Information Systems Action Plan, also included the centralization of health data in 2008 and the establishment of a communication center in 2016 that provides video translation services for the hearing impaired.



President Şeker and TÜBA Members Met with Prof. Aziz Sancar

TÜBA President Prof. Muzaffer Şeker, TÜBA Council members and TÜBA Fellows met with TÜBA Honorary Member and Nobel Prize winner in Chemistry Prof. Aziz Sancar at Istanbul University (IU) Baltalimanı Social Facilities.

President Şeker drew attention to Türkiye's scientific achievements and emphasized the importance of strengthening its scientific presence in the international arena and raising young researchers. Emphasizing the mission of TÜBA, Şeker underlined that Türkiye's scientific capacity should be increased and national science should be represented more in the international arena. He stated that the projects carried out with the vision of TÜBA are of great importance for scientific cooperation and sustainable development.

Prof. Aziz Sancar said, "I try to be worthy of my country and the Turkish world because of the appreciation I receive when I come to Türkiye. The attention I receive every time I visit gives me strength."

Prof. Sancar touched upon Türkiye's potential in the world of science and the importance of international cooperation



and emphasized the role played by TÜBA in overcoming the difficulties faced by scientists. Sancar stated that the support given to young scientists should be increased and that Türkiye has a great potential to be more effective in the scientific field globally.

The meeting focused on TÜBA's future projects, international scientific collaborations and Türkiye's strategic goals in the scientific field. TÜBA President Prof. Muzaffer Şeker, President of TÜBİTAK Prof. Orhan Aydın, Rector of IU Prof. Osman Bülent Zülfikar, Rector of Kocaeli Health and Technology University

Prof. Muzaffer Elmas, Rector of Lokman Hekim University Prof. Fatih Gültekin, Prof. Tayfun Özçelik, Prof. Fahrettin Keleştemur, Prof. Fikrettin Şahin, Prof. Mustafa Fikrettin Şahin, Prof. Mustafa Fikrettin Keleştemur, Prof. Mustafa Fikrettin Keleştemur and Prof. Fatih Gültekin. Fikrettin Şahin, Prof. Mustafa Solak, Prof. İzzet Öztürk, Prof. Reşat Apak, Prof. Feridun Emecen, Prof. Kadriye Arzum Erdem, Prof. Mehmet Emin Aydın, Prof. Mustafa Çiçekler, Prof. Kazım Şahin, Prof. Ertuğrul Kılıç, Prof. Ahmet Gül, Prof. Aydın Gülan took part in the meeting where Prof. Sancar was the guest of honor.



TÜBA-The Future of Sustainable Economy and Finance: Global Challenges and Opportunities Symposium



The symposium “Sürdürülebilir Ekonomi ve Finansın Geleceği: Küresel Meydan Okumalar ve Fırsatlar” (The Future of Sustainable Economy and Finance: Global Challenges and Opportunities) organized by TÜBA-Sustainable Development and Finance Working Group to discuss the impact of sustainability on the world of economy and finance as well as the challenges on a global scale was held at the Esenboğa Complex of Ankara Yıldırım Beyazıt University (AYBÜ).

The program, which started with the speeches of TÜBA President Prof. Muzafer Şeker, TÜBA Full Member and Sustainable Development and Finance Working Group Executive Director Prof. Mehmet Bulut and AYBÜ Faculty of Political Sciences Dean Prof. Hakkı Odabaş, was attended by representatives from public institutions and organizations,

researchers, university academic and administrative staff, students and guests. In 4 sessions, including Deputy Minister of Industry and Technology Zekeriya Coştu, Ministry of Environment, Urbanization and Climate Change, Deputy Head of Climate Change Dr. Tuğba Dinçbaş, Ministry of Treasury and Finance, General Director of Financial Markets and Foreign Exchange Deniz Yılmaz; ideas and information were exchanged for a sustainable future through interaction between academics, policy makers, business leaders and representatives of non-governmental organizations.

More than 20 speakers from over 10 institutions and universities from various disciplines came together at the symposium, which was planned to address the challenges faced in ensuring sustainable economic growth

and financial stability. The symposium program offered a platform to raise awareness on sustainability, inform policymakers and strengthen the public's awareness of this important issue by presenting strategic approaches and proposing innovative solutions to overcome global challenges.

Academics, policymakers, business leaders and representatives of civil society organizations came together.

The symposium brought together the views of experts from various disciplines to address the challenges faced in achieving sustainable economic growth and financial stability. With the participation of more than 20 speakers from over 10 institutions and universities, the symposium provided a platform to raise awareness on sustainability, inform policymakers and strengthen public awareness of this important issue. The symposium program offered strategic approaches to the development of sustainable economic and financial policies and proposed innovative solutions to overcome global challenges. Through the interaction between academics, policymakers, business leaders and civil society organizations, a shared vision for a sustainable future was discussed.



President Şeker Visited ANUBiH

TÜBA President Prof. Muzaffer Şeker met with Muris Cicic, President of the Academy of Sciences and Arts of Bosnia and Herzegovina (ANUBiH).

President Şeker stated that they were in Sarajevo for TÜBA INCLUSION education programs and shared project details with President Cicic and the ANUBiH delegation. Emphasizing that the communication between the academies will strengthen the ties between both countries, Şeker stated that the Turkish and Bosnian people are connected to each other with a deep-rooted historical past. Within the scope of the bilateral agreement signed between TÜBA and ANUBiH in 2015, the programs and studies to be carried out jointly were emphasized. In-



formation was given about TÜBA working groups and publications.

TÜBA Advisor to the President Assoc. Prof. Kevser Çınar and Asst. Prof. Mürsel

Doğrul, ANUBiH Secretary General Asif Sabanovic, Inter-Academy Cooperation Specialist Nerma Tanović and Academy Secretariat Amra Avdagic also took part in the meeting.

The World is Losing Its Biodiversity



Regarding the world's loss of biodiversity in the last 60 years, TÜBA addressed the issue from a multidimensional and multidisciplinary perspective in its book "Bıyoçeşitlilik, Tarım ve Gıda".

The work edited by TÜBA Full members Prof. Mehmet Emin Aydın and Prof. Kazım Şahin, along with Prof. Sezai Ercişli, a member of the TÜBA Environmental, Biodiversity, and Climate Change Working Group, examines numerous vital topics in detail, such as the impact of climate

change on agricultural biodiversity, improper water use, irresponsible fertilizer application, incorrect pesticide use, aquatic product production and fish biodiversity, traditional/local seeds, and methods for preserving biodiversity in agricultural products with GMOs. At the same time, it offers solutions and strategies to guide decision-makers, scientists, and researchers.

In his speech on the subject, TÜBA President Prof. Muzaffer Şeker said that the importance of biodiversity is of great importance especially in terms of living life and its future, and that the great loss caused by the unconscious activities of mankind has gained more momentum with the increase in invasive species, habitat losses, global warming caused by overuse and pollution.

Türkiye is located in the Mediterranean basin, where the world's most biodiversity loss is experienced.

"Global biodiversity loss faces many threats, including the use of agricultural land for tourism or settlement, land use change such as changes in land structure due to drought and the disappearance of lakes, habitat loss and fragmentation,

overuse of natural resources, pollution, increase in invasive non-native species, and climate change. Biodiversity loss includes the worldwide disappearance of different species, as well as the localized decline of species in a given habitat. Türkiye's location in the Mediterranean basin, which has the highest biodiversity loss worldwide, makes it highly vulnerable to biodiversity loss. Climate change due to global warming poses a major threat to global biodiversity. Some studies indicate that habitat destruction due to the expansion of agriculture, as well as over-exploitation of wildlife, are the main drivers of biodiversity loss, with climate change among the most important drivers of biodiversity loss."

Also referring to the Kunming-Montreal Global Biodiversity Framework at the COP15 in Canada, President Şeker informed that the Kunming-Montreal Global Biodiversity Framework includes global targets aimed at protecting and improving nature for future generations and promoting green investments, and stated that it is aimed to restore 30 percent of degraded ecosystems in land and marine life globally by 2030.

TÜBA Biodiversity Workshop



The “Biodiversity Workshop on Flora and Fauna in Aquatic and Terrestrial Ecosystems in the Aegean Region” organized by TÜBA’s Environment, Biodiversity, and Climate Change Working Group, was hosted by Dokuz Eylül University (DEÜ).

The workshop provided an opportunity to assess the current state of biodiversity in the Aegean Region and to exchange ideas and make recommendations on sustainable strategies for preserving the region’s ecological balance as well as its economic and cultural richness. Participants included representatives from relevant ministries, faculty members from state and foundation universities, professionals from various associations, and researchers, experts, and managers from the private sector. It was announced that the reports from the workshop would be shared with relevant institutions as a comprehensive publication and made available to policy makers. Prof. Davut Keleş from TAGEM, who participated as an invited speaker, provided information on “Türkiye’s Vegetable Genetic Resources-Biodiversity.”

During the two-day workshop, five sessions were held covering topics such as

the flora and fauna biodiversity of the Aegean Region, the impacts of global climate change, the main issues of aquatic ecosystems, and the causes of biodiversity loss. The workshop addressed these issues from all perspectives and took significant steps towards developing and implementing sustainable strategies for biodiversity conservation and management. The program was opened by DEÜ Rector Prof. Mahmut Ak and TÜBA President Prof. Muzaffer Şeker.

Biodiversity Provides Crucial Ecosystem Services

In his speech, President Muzaffer Şeker emphasized that the workshop brought together scientists to discuss the extraordinary biological diversity of the Aegean Region and the steps needed to preserve this richness. He highlighted the workshop’s importance as a platform for both maintaining ecological balance and ensuring the region’s economic and cultural wealth.

President Şeker noted that the workshop’s five sessions over two days covered the Aegean Region’s flora and fauna biodiversity, the effects of global climate

change, major issues in aquatic ecosystems, and the causes of biodiversity loss. He emphasized that important steps were taken towards developing and implementing sustainable strategies based on scientific data.

Over 200 Invasive Species Affecting Biodiversity

Prof. Mehmet Emin Aydın, the Coordinator of TÜBA’s Environment, Biodiversity, and Climate Change Working Group, reminded attendees that the Aegean Sea hosts a variety of habitats, including coastal ecosystems, phytoplankton, zooplankton, and benthic communities. He stated, “The coastal strip, including lagoons, deltas, and salt marshes, is significant for many birds and aquatic creatures. Over 200 alien species have been reported in the Aegean Sea. Invasive species are also impacting biological diversity. While habitat change, pollution, and overuse threaten marine biological diversity, climate change further exacerbates these challenges.”

President Şeker Attended Summit of the Future

TÜBA President Prof. Muzaffer Şeker attended the Multilateral Solutions for a Better Tomorrow Session at the United Nations (UN) Summit of the Future held in New York between 22 and 23 September 2024.

Organized within the framework of the 79th session of the UN General Assembly, the session was subtitled “Enhancing Multilateralism for International Peace and Security” and emphasized the importance of international cooperation at a time when the world is facing increasing geopolitical tensions, the emergence of a multipolar power structure and threats such as terrorism, and the need for strong, comprehensive and multilateral solutions to ensure peace and security. Particular emphasis was placed on the impact of technology on security and emerging challenges such as the threat of terrorism. It was discussed that the challenges facing the international community are not of a magnitude that any one country can overcome alone. The impact of multilateral cooperation, the permanence and sustainability of peace on solving problems were discussed. At the same time, it was emphasized that it is critical to ensure the full, equal and meaningful participation of women in decision-making mechanisms on peace and security issues. UN Secretary-General Antonio Guterres’ policy brief titled “A New Agenda for Peace” was among the key issues discussed in the session. Guterres pointed to a period in which collective action is inevitable for rebuilding trust and solidarity and for global peace.

Prof. Şeker chaired the session on “Enhancing Multilateralism for International Peace and Security”, which was also attended by several heads of state, including President Julius Maada Bio of Sierra Leone, President Ratu Wiliame Maivalili Katonivere of Fiji and President Emmerson Mnangagwa of



Zimbabwe. The session also included foreign ministers and deputy foreign ministers from Slovenia, Iceland, Guatemala, Angola and many others.

The UN should adopt common legislation on social media

TÜBA President Prof. Muzaffer Şeker’s participation in the session demonstrated Türkiye’s scientific and diplomatic commitment to international peace and security goals. “As part of the UN’s multilateral cooperation and peace efforts, Türkiye’s role in this field is important. We find it very valuable in terms of our ongoing work and our strategic roadmap within the framework of our future vision that TÜBA conducts science diplomacy on a platform that emphasizes the strong links between science and peace through international cooperation.” Prof. Şeker emphasized the importance of scientific and academic contributions for the solution of global issues and underlined Türkiye’s active role in this field.

Prof. Şeker said that the negative effects caused by the misuse of social media on the security problems of the individual and society, as well as the long-term negative effects on cultural values, especially trade, politics, education, family, language and art in social life, pose a risk to social peace and the fundamental rights and freedoms of the individual if measures are not taken.

He underlined that social media causes an uncontrolled power as a result of addiction and digital ignorance, and that there is a danger that vital damage in the unhealthy information pit that feeds ignorance, gossip, selfishness, vindictiveness and enmity with deliberate sharing is in danger of evolving towards a process that cannot be corrected. He emphasized the urgent need for countries and policymakers to adopt joint legislation under the UN umbrella.

Necessity of reforms

The session also discussed the need to reform the UN Security Council. It was stated that reform is long overdue in order to build a structure in the global security architecture that is more in line with the realities of the 21st century. Prof. Muzaffer Şeker stated that strengthening multilateral cooperation will further enhance Türkiye’s contributions to global security and peace goals.

During the Summit, world leaders reaffirmed their commitment to the UN Charter and the Sustainable Development Goals (SDGs), and discussed the need for a transition to a more inclusive and equitable system of global governance. The Summit is expected to adopt the “Pact for the Future”, and important documents such as the Global Digital Compact and the Declaration on Future Generations were also on the agenda as part of this pact.

President Şeker Participated in High Level SDSN Event

TÜBA President Prof. Muzaffer Şeker attended the UN Sustainable Development Solutions Network (SDSN) Pre-Summit of the Future Event at Columbia University on 20-21 September 2024.

President Şeker, who is in New York, took part in the High Level SDSN Event organized at Columbia University and held before the "United Nations (UN) Summit of the Future". The event was addressed by high-level participating academics, government representatives and experts on thematic topics in sustainable development, global governance, AI ethics and education.

The opening speech of the event was delivered by Prof. Jeffrey Sachs, President

of SDSN and Honorary Member of TÜBA. Sachs drew attention to the panels that will address critical issues such as financing sustainable development, ethical dimensions of global peace and security, and the transformation of the workforce in the digital age. Keynote speeches were delivered by prominent figures such as Raila Odinga, Former Prime Minister of Kenya, and Miguel Ángel Moratinos, High Representative of the UN Alliance.

During the meeting, the importance of scientific commitments and international cooperation in achieving sustainable development goals was emphasized, and Prof. Şeker pointed to projects aimed at strengthening TÜBA's role in this regard.



The summit, chaired by TÜBA Fellow Jeffrey Sachs, allowed for a stronger representation of Türkiye's scientific contributions in the international arena.

President Şeker Visited the New York Turkish House



In New York for the United Nations (UN) Future Summit, TÜBA President Prof. Muzaffer Şeker met with Prof. Şamil Öcal, Education Attaché in New York, at the Turkevi, the diplomatic headquarters of the Republic of Türkiye.

In the meeting, comprehensive consultations were held on Türkiye's international representation in science and education, as well as on deepening cooperation in this field. The meeting took place at

Türkevi, one of New York's iconic buildings that hosts Türkiye's Permanent Mission to the United Nations and its Consulate General, where ideas were exchanged on strengthening Türkiye's academic and scientific representation abroad. Prof. Muzaffer Şeker and Prof. Şamil Öcal emphasized potential efforts to ensure that Turkish scientists participate more actively in global projects and to increase academic collaborations.

Strengthening education and science cooperation

Prof. Şeker gave information about TÜBA's international scientific diplomacy activities and emphasized the importance of promoting Türkiye's achievements in science and education more effectively on a global scale. Prof. Öcal, on the other hand, shared comprehensive information about the situation of Turkish students and academics in the USA and drew attention to the need for new cooperation opportunities in this field.

Joint projects for the future

During the meeting, it was also agreed to deepen cooperation between Turkish universities and international institutions and to provide Turkish students with greater access to educational opportunities abroad. It was agreed to implement new projects to strengthen relations in the field of higher education and increase student mobility.

Artificial Intelligence and the Future of Education at Albania Young Academy



Asst. Prof. Mürsel Doğrul from National Defense University represented TÜBA Young Academy at the conference titled "Technology, Artificial Intelligence and the Transformation of Scientific Research" organized by Albanian Young Academy in Tirana, the capital of Albania.

The conference was opened by Prof. Skënder Cjinushi, President of the Albanian Academy of Sciences, Znj. Ana Kapaj, Co-Chairs of the Global Young Academy (GYA) Dr. Yensi Flores Bueso and Dr. Chandra Shekhar Sharma, President of the Albanian Young Academy Dr. Belfjore Zifla, Director of the

Artificial Intelligence Unit of the Albanian Academy of Sciences Akad. The program started with the speeches of Frashëri and Sevrani, followed by the speeches of Neki Frashëri and Assoc. Prof. Kozeta Sevrani and Z. Franc Zylyftari, Cyber Security Specialist at the National Agency for Information Society of Albania.

In the program, organized in cooperation with the Young Academy and the Artificial Intelligence Research and Study Unit of the Albanian Academy of Sciences, Dr. Doğrul moderated the session on "Artificial Intelligence in Education", "TÜBA Young Academy:

Bridging Science, Society and Ethics - Responsible Research and Innovation in the Age of Artificial Intelligence".

At the conference, where a total of 30 oral and poster presentations were made, Dr. Mürsel Doğrul presented Prof. Vasil S. Tole, Vice President of the Albanian Academy of Sciences, with the Academy's recent publications "Global Transformations and Türkiye" and TÜBA Newsletter, while Dr. Belfjore Zifla, President of the Albanian Young Academy, was presented with the "G8-G20 Joint Statements from Science Academies to World Leaders".



The Istanbul Museum for the History of Science and Technology in Islam

Based on Prof. Fuat Sezgin's five-volume work "Science and Technology in Islam," the book "The Istanbul Museum for the History of Science and Technology in Islam," published jointly by TÜBA and the Foundation for the History of Islamic Science Research (İBTAV), features nearly 600 replicas of tools, devices, model drawings, and photographs displayed at the Museum of the History of Science and Technology in Islam, located in Istanbul's Gülhane Park, along with historical details.

Cyber Attack Prediction from TÜBA



Published in 2020 under the leadership of the TÜBA-Information Technologies and Communication Working Group, “Bilişim Teknolojileri ve İletişim: Birey ve Toplum Güvenliği”, predicted the attacks in Lebanon and published them on its website.

In the book prepared following the workshop titled “Bilişim Teknolojisi ve İletişim: İnternet ve Toplumsal Etkileri”(Information Technology and Communication: Internet and Social Impacts) organized in collaboration with TÜBA and Boğaziçi University and held at Boğaziçi University, the warning that countries and companies can be targeted through technological systems and tools was particularly emphasized.

Following a series of technology-driven explosions in Lebanon, cyber-attacks have become a topic of widespread interest. The book, edited by TÜBA President Prof. Muzaffer Şeker, Assoc. Prof. Yasin Bulduklu, Assoc. Prof. Cem Korkut, and Asst. Prof. Mürsel Doğrul, features contributions from numerous scientists from various fields and includes significant findings, predictions, and analyses regarding cyber issues.

Political manipulation can be done with cyber attacks

In the work, special emphasis is placed on the fact that cyber-attacks should be among the most important risk

factors for institutions and countries. In the article titled ‘Individual and Social Security: Right of Communication and Freedom of Expression’, written by President Prof. Şeker, there is a special emphasis on the fact that international cyber-attacks will increase:

“In the international arena, it is openly discussed that cyber-attacks have become widespread and have caused commercial and political manipulations, leading to inter-state conflicts. In addition, it is understood that technical and socio-economic analyses of cyber-attacks are valuable in a process where global powers such as the US, Russia and China, as well as the intelligence of many countries, are creating new units and strategies to take special measures.”

Emphasis on artificial intelligence and cyber attacks

Digitalization is discussed in all its dimensions in the book, which also includes issues related to the development and possible consequences of artificial intelligence on its agenda. Prof. Ercan Öztemel, who analyzes the future of artificial intelligence, provides information on autonomous machines and systems in the chapter titled ‘Artificial Intelligence and the Future of Humanity’. Öztemel, who pairs cyber-attacks with artificial intelligence in the chapter, says:

“In addition to many benefits, these technologies will lead to the formation of robot applications that will disturb the peace of society, the disappearance of privacy, the occurrence of cyber-attacks, the inability to get rid of unwanted information, the expectation of 24/7 service, and the increase in information theft. It is also stated that it may have negative effects in terms of triggering issues such as providing opportunities to support the usurpation of intellectual property rights” and it is argued that the use of this technology with the aim of spreading cyber-attacks and decreasing information security may contribute to the success of malicious intentions. In the same book, Prof. Türkay Dereli draws attention to the fact that organizations will become more vulnerable to cyber-attacks due to artificial intelligence.

Cem Karakaya, an expert on combating cybercrimes, emphasizes that cyber-attacks are not only carried out through computers and that cameras are a threat. It is pointed out that images recorded without the knowledge and consent of the person can be an element of cyber-attack. It is analyzed that cyber criminals can plan a large number of actions with an algorithm that works on not taking precautions. The book, which deals with digitalization in different contexts, is available on TÜBA’s website and can be accessed from the link below.

Black Sea Universities Network 'BSUN 2024' Meeting



TÜBA President Prof. Muzaffer Şeker attended the 16th Black Sea Region Rectors Conference and the Black Sea Universities Network 2024 Congress (BSUN 2024) organized by the Black Sea Universities Network (BSUN) at Istanbul University (IU).

The opening of the BSUN meeting, which involved discussions of scientific ideas and planning for the future across regional and international areas, with the participation of 120 universities from 12 different countries, was conducted by the President of the Higher Education Council (YÖK) Prof. Erol Özvar, the Secretary General of the Black Sea Economic Cooperation (BSEC) O. Lazăr Comănescu, TÜBA President Prof. Muzaffer Şeker, the President of the Network of Universities from the Capitals of Europe (UNICA) Prof. Sorin Costreie, TÜBA Associate Member and TÜBİTAK President Prof. Hasan Mandal, TÜBA Associate Member and IU Rector Prof. Osman Bülent Zülfikar, BSUN President Prof. Marian Preda, and the Rector of the Baku Higher Oil School Prof. Elmar Gasimov. Four sessions were held under the titles: "The Role of Universities in Promoting Science-Based Decision Making in Society, New Peace Agenda and Regional Cooperation Institutions Reform in the Expanded Black Sea Region, Pact Paths for the

Future of the Expanded Black Sea Region, and Transformation of Education and Society." Throughout the program, discussions were held on strengthening academic collaborations, implementing innovative projects, and the future of scientific research. In the General Assembly moderated by BSUN Secretary General Prof. Mamut and IU's Prof. Ayşe Zişan Furat, IU Rector Prof. Zülfikar was elected to assume the BSUN Presidency for 2024-2026.

We Must Fully Support Basic Scientific Research

Speaking at the meeting attended by university rectors and representatives of scientific academies from countries within the Black Sea Economic Cooperation, President Şeker highlighted the increasing complexity and globalization of global problems and stressed the critical importance of collaboration among scientific communities. Şeker stated that basic sciences are at the center of efforts to solve future problems and push the boundaries of what is possible, noting that disciplines such as physics, chemistry, biology, and mathematics are foundational to applied sciences and technological advancements. "Without a deep and comprehensive understanding of basic sciences, our capacity for innovation, adaptation, and progress is

significantly hindered. Through rigorous pursuit of fundamental knowledge, we uncover the mysteries of the universe and develop the tools necessary to address urgent issues of our time, from climate change to public health crises. Therefore, it is imperative for leading institutions of scientific thought to commit themselves to the promotion and support of basic sciences. We must ensure that our researchers have access to the resources, freedom, and encouragement they need to explore fundamental questions that will pave the way for future innovations. This determination must be reflected not only in our funding priorities but also in our educational programs, and in nurturing the next generation of experts in these fundamental disciplines. However, the pursuit of knowledge knows no bounds. Science thrives in an environment of openness and collaboration," he said.

We Must Create Platforms for Collaborative Projects

Emphasizing that the strategic location and diverse member states of the Black Sea Region offer unique opportunities for collective work, Şeker pointed out that by fostering a spirit of cooperation, regional challenges can be addressed more effectively, findings can be shared on a broader scale, and the impact of research can be strengthened. Şeker

continued: “We must strive to create platforms for collaborative projects, joint research initiatives, and exchanges of students and researchers that address our shared concerns. These initiatives will not only enhance our scientific capacity but also build bridges of understanding and friendship among our countries. I would like to reiterate TÜBA’s unwavering commitment to enhancing scientific quality and cooperation in the Black Sea Region. Let us use this opportunity to strengthen our ties, share our knowledge, and work together for a brighter, more prosperous future. By embracing a spirit of collaboration and prioritizing basic sciences, we can ensure that our academies remain at the forefront of global scientific progress.”



TÜBA Associate Member and Rector of Istanbul Technical University (ITU) Prof. İsmail Koyuncu presented on TÜBA Awards and Research Universities in Türkiye. Prof. Koyuncu provided information about TÜBA’s history starting from Encümen-i Daniş (Council of Scholars) and discussed the Academy’s awards for programs,

projects, publications, and achievements. He also shared information on the criteria for identifying research universities and their performance, and provided examples of universities in Türkiye that are candidates for becoming research universities, discussing the support available for these candidates.

TÜBA Member Prof. Dr. Kalayoğlu Has Passed Away



TÜBA Honorary Member Prof. Dr. Münci Kalayoğlu passed away at his home in Istanbul on November 17.

A memorial ceremony was held on November 19 at Koç University Health Sciences Topkapı Campus for Prof. Kalayoğlu, who was among the “20 Most Innovative Pediatric Surgeons Alive”

having performed over 1500 transplants to date. After the funeral prayer at Zincirlikuyu Mosque on the same day, he was buried in Zincirlikuyu Cemetery.

We wish Allah’s mercy to Prof. Kalayoğlu and our condolences to his family, loved ones and the scientific community.

Who is Prof. Münci Kalayoğlu?

He was born in 1940 in Ankara. In 1963, he took the exam of Ankara University Faculty of Medicine and successfully passed. After graduating from Ankara University Faculty of Medicine, he entered Hacettepe University Faculty of Medicine and studied general surgery as İhsan Doğramacı’s assistant. He then completed a surgical internship at Mount Sinai School of Medicine in New York between 1967 and 1968. Between 1968 and 1970, he completed his specialty studies in pediatric surgery at Pittsburg Children’s Hospital.

After completing his education in the USA, he returned to Türkiye and started

working as an assistant professor in Pediatric Surgery at Hacettepe Medical Faculty in 1971. He became an associate professor a year later and a professor in 1977.

He started the Liver Transplantation Program at the University of Wisconsin in 1983 and directed it for 25 years. He performed over 1,500 transplants, including the first liver transplant in Wisconsin, the first reduced (adult-to-child) liver transplant, the first “cluster” transplant, the first adult-to-adult live liver transplant, the first pediatric liver transplant, and the first liver transplant for the youngest sick child in the state. He contributed to the development of the Wisconsin solution, which allows the liver to be kept alive outside the body for more than 20 hours.

In 2006, Prof. Dr. Münci Kalayoğlu returned to Türkiye and was elected as a TÜBA Member in 2010, and was considered one of the best surgeons in the world.

2024 Asian Science Academies Forum

TÜBA President Prof. Muzaffer Şeker attended the 2024 Asian Science Academies Forum in South Korea upon the invitation of the Korean Academy of Science and Technology (KAST). Prof. Ahmet Nur Yurdusev, Full Member of TÜBA and President of the Association of Asian Science Academies and Societies (AASSA), also took part in the forum.

As Asian countries are becoming more influential on a global scale in various fields such as economy, culture and science, and the importance of science and technology as the main driver of national growth has increased, KAST brought together the heads of academies of Asian countries under the theme of "Advancement of Science and Technology in Asia" as part of its 30th anniversary celebration. The forum opened with the speeches of Prof. Ook Joon Yoo, President of the Korean Academy of Science and Technology, and Prof. Ahmet Nur Yurdusev, President of AASSA.

In addition to TÜBA, representatives of Nepal Academy of Science and Technology, Malaysian Academy of Sciences, Academy of Sciences of the Republic of Uzbekistan, Academy of Sciences of the Republic of Uzbekistan, Indonesian Academy of Sciences, Japan Science Council, Pakistan Academy of Science, National Academy of Science and Technology of the Philippines participated in the program, where 3 sessions were held.

"Our focus is on artificial intelligence, nanotechnology and renewable energy"

At the meeting, where the president of each science academy made a presentation on the current state of science and technology in their countries, President Şeker explained Türkiye's approach to promoting innovation and growth in the fields of science, technology, engineering and mathematics (STEM),



which form the basis of Türkiye's national agenda. He stated that Türkiye's STEM policy is built on four main goals and said "We are committed to strengthening STEM education at all levels, from primary school to graduate studies, with the goal of improving education. We are integrating digital literacy and artificial intelligence into the national curriculum to prepare future generations for the rapidly evolving technological environment. We recognize the importance of developing a collaborative ecosystem that bridges academia and industry to promote research and innovation. As Türkiye, we are focusing on cutting-edge areas such as artificial intelligence, nanotechnology and renewable energy, which we believe have great potential for global leadership. As the global science and technology environment becomes increasingly competitive, we are aligning our policies with international standards. Ensuring women's participation in STEM is a priority for us; we have launched special programs to encourage women to pursue careers in STEM fields, which will unlock our diverse and dynamic workforce."

Stating that Türkiye has made significant progress in terms of R&D investments, Prof. Şeker said that 1.6% of the national GDP was allocated to R&D in 2023, the target is 2% by 2028, and that

investment is important for progress in university and industry cooperation projects. Informing that Türkiye is working to be among the top 20 in global STEM innovation and education within the framework of the 2053 vision, President Şeker stated that studies will be carried out on sustainability, smart technologies and green transformation, which are critical areas in line with global priorities such as climate action and sustainable development. He said that efforts are underway to close the gap between academic research and industry practices through programs, projects, support and incentives. He also stated that ensuring equal access to STEM education in every corner of the country is among the priority needs.

At the end of his speech, Prof. Şeker said, "Türkiye has taken important steps in the development of STEM. In the ongoing process, cooperation within our country and with international partners needs to continue. The challenges we face such as the loss of young talent, the gap between academia and industry, and equal access to education are not unique to Türkiye. They are shared by many of the countries represented here today. That is why forums like this are so valuable as they allow us to learn from each other and work together towards common goals."

TÜBA-Turkish World Summer Schools



The 'Energy' and 'Turkology' Summer Schools, organized in cooperation with TÜBA, Turkish Language Institution (TDK), Hoca Ahmet Yesevi International Turkic-Kazakh University and International Turkic Academy (Turkic World Educational and Scientific Cooperation Organization-TWESCO) and with the contributions of the Turkish Cooperation and Coordination Agency (TIKA), were held at Ahmet Yesevi University in Turkistan, Kazakhstan.

Organized by TÜBA 4 times in total until 2022 and organized in cooperation with stakeholders for the last 2 years, the summer schools aim to build bridges between scientists of fraternal, neighboring and close countries where Turkic and related communities live, and to ensure diplomatic rapprochement and development of their relations.

We attach great importance to the development of Turkology.

Chairman of the Board of Trustees of Khoja Ahmet Yesevi International Turkic-Kazakh University Prof. Muhittin Şimşek, Rector Dr. Zhanar Temirbekova, President of TÜBA Prof. Muzaffer Şeker, President of the International Turkic Academy Prof. Şahin Mustafayev, Vice President of the Turkish Language Association Assoc.

Prof. Harun Şahin, scientists, academy representatives and scientists from Turkic countries took part in the opening of the program.

In his speech, Prof. Şeker emphasized the importance of developing the language and culture of the Turkic people and stated that it is very valuable to meet young people in the same environment for the future of the Turkic world. Prof. Şeker said: "If the participants use what they have learned in the summer school in their daily and academic lives, it will mean that the education has achieved its goal. The development of Turkology and increasing the reputation of the Turkic world in the world arena is very important for all of us, and we will continue our work in this direction."

Prof. Şimşek, who stated that thanks to the Summer School, Turkestan has turned into a Turkology science laboratory, said that "assimilating the values of the Turkic world is the common value of the Turkic world.

Rector of Khoja Ahmet Yesevi International Turkic-Kazakh University Zhanar Temirbekova stated that she was happy to see all the participants, especially Ahmet Yesevi University, the spiritual teacher of Turkic peoples, in

Turkistan. Stating that Turkology and new energy technologies are important not only for the Turkic world but also for the world, Dr. Temirbekova said that the summer school will reveal the deep history, traditions, values, language and culture of the brotherly countries and added: "For the integration of the Turkic world, we need to fully learn Turkology. We all care about finding new energy sources and increasing our technological potential according to the needs of the time. We believe that our summer school will be effective in this regard."

62 young scientists and researchers received training at the summer school.

The New Energy Technologies Summer School program, which was shaped around teaching and discussing various energy technologies, focusing on both traditional and modern approaches, lasted 5 days. A total of 30 students attended the lectures on the latest developments, current problems and opportunities in the field of energy technologies. The program also focused on the basic principles and established methods of energy production as well as innovative and sustainable solutions to meet future energy demands, and discussed new approaches to energy production,

management and sustainability. In order to encourage participants to contribute to the development of energy solutions of the future, the program covered a wide range of topics such as Traditional Energy Sources in Thermodynamics, Nuclear Energy, Renewable Energy Sources and Hydrogen Energy Technologies.

On the other hand, 32 students participated in the Turkology Summer School, which was founded on the main theme of the scientific and intellectual history, archaeology, language and literature of the Turkic World from past to present. It was aimed to create a platform for young academics working in the field of Turkology to interact, present their ongoing projects and studies, increase their knowledge, and establish strong relationships within the academic network. The summer school, which was



attended by scientists working on the cooperation of Turkic states and the integration of the Turkic World, brought together young academics from Turkic states and enabled them to deepen their theoretical and practical knowledge on the history, archaeology, language and literature of the Turkic World. It also contributed to the development of the participants' skills in interrelated

areas such as scientific publication, presentation and utilization of research funds. The summer school program included courses on the Concept of the Turkic World, History of Turkic States, Archaeology of the Turkic World, History of Art and Thought of the Turkic World, Turkic Languages and General Features of Contemporary Turkic Languages.

TÜBA Member Prof. Sancar's New Academic Year Opening Lecture at ITU

In his lecture, Sancar explained his work on how a molecule known as 'EDU' could provide a solution against brain cancer. Sancar and his team's work reveals the potential for a solution against brain cancer, which has a very high mortality rate.

The opening lecture of the 2024-2025 Academic Year held at Istanbul Technical University's (ITU) Ayazağa Campus Süleyman Demirel Cultural Center was given by Prof. Aziz Sancar, 2015 Nobel Prize winner in Chemistry and TÜBA Honorary Member. TÜBA President Prof. Muzaffer Şeker, ITU Rector Prof. Hasan Mandal, Vice Rectors, academic and administrative staff and students attended the ceremony.

Following ITU Rector Prof. Hasan Mandal's comprehensive presentation of ITU's current situation analysis and future goals, biochemist and molecular biologist Prof. Aziz Sancar delivered the opening lecture of the 2024-2025



Academic Year titled "EdU (5-etinil-2'-deoksiüridin) Beyin Kanseri Tedavisi İçin Potansiyel Bir Aday" (EdU (5-ethynyl-2'-deoxyuridine) as a Potential Candidate for Brain Cancer Treatment). Sancar stated that for the first time, the information he presented in the lecture was the results of his laboratory.

In the lecture, Prof. Sancar explained the studies he conducted to clarify the mechanism of action of EdU at the cellular lev-

el, which was previously not well known, and drew attention to the potential of EdU as a treatment agent that can cross the blood-brain barrier against aggressive brain cancers such as Glioblastoma without damaging nerve cells.

At the end of the lecture, TÜBA President Prof. Muzaffer Şeker presented congratulatory certificates to the winners of the 2024 TÜBA-TEKNOFEST Doctoral Science Awards.

2024 TÜBA-GEİP Traditional Scientific Evaluation Meeting



The TÜBA-Outstanding Young Scientist Awards Program (GEİP) Annual Scientific Evaluation Meeting was held at Atatürk University.

Young scientists who received the GEİP Award presented their scientific projects and activities from the past year in six simultaneous sessions: Basic Sciences I-II, Engineering Sciences I-II, Health and Life Sciences, and Social Sciences. The sessions addressed topics related to the evaluation and development of projects. Following these sessions, a general evaluation session was held with the participation of all award recipients and academic members. Faculty members and students also attended the sessions. An "Interview with Prof. Metin Balcı" was conducted with Academy Honorary Members and Young Academy Members. The opening speeches were delivered by Atatürk University Rector Prof. Ömer Çomaklı and TÜBA President Prof. Muzaffer Şeker.

A total of 644 outstanding young scientists were awarded under TÜBA-GEİP. Speaking at the traditional meeting, President Şeker reminded that TÜBA's "GEİP is one of Türkiye's most prestigious and unique award programs aimed at encouraging scientific and research activities and rewarding scientific achievements." He noted that to date, 644 outstanding young scientists have been awarded under this program, which aims to reward exceptional young scientists and support and encourage high-quality research in Türkiye.

President Şeker stated: "The Outstanding Young Scientist Awards provide an important platform to recognize our young researchers' scientific work and guide them toward greater achievements. These awards aim to increase the motivation of young scientists and enhance our country's competitiveness in science and technology. The series

of meetings provides significant data across many fields, from basic sciences to social sciences. These meetings are open to external stakeholders, and academics or students can also participate and share their views and suggestions with scientists in an environment where bright ideas are discussed." He added that the evaluation of 2024 TÜBA-GEİP applications and the determination of awardees are carried out by the GEİP Field Evaluation Committees, the GEİP Main Committee, and the Academy Council. In addition to the TÜBA-GEİP Award, the Ahmet and Nezahat Keleşoğlu TÜBA-GEİP Pharmacy Special Award will also be given in 2024.

Expressing his concern for the academic world, Şeker criticized the silence of academic leaders and country representatives regarding the events in Gaza, stating, "It is disheartening to see similar mistakes continue due to lessons not being learned from the past. I hope a ceasefire will be achieved soon, bringing peace and tranquility to the region and that humanity will work together to end this oppression as soon as possible. There will be situations where those who remain silent, ignore, and do not share this concern and sadness will eventually have to account for their consciences. When we highlighted these issues at the Science20 meeting, it was unfortunately clear that the academic leaders and representatives of the G20 countries had



nothing to say. I warned them that ‘you may not be speaking considering your past mistakes, but at least you should do something to avoid being complicit in new ones.’ I conveyed my disappointment on behalf of the academic world. If the academic world does not serve as a warning in such situations, when will it? Such selfishness, such a power struggle, and being lost in chaos and crisis without common sense are highly contradictory and paradoxical. We are even incapable of commenting on it.”

We are Proud to Host Such an Important Event

Rector Çomaklı stated that the management team is working to elevate their university from a regional to a global status and thanked everyone involved in organizing the 2024 TÜBA-GEİP Annual Scientific Evaluation Meeting.



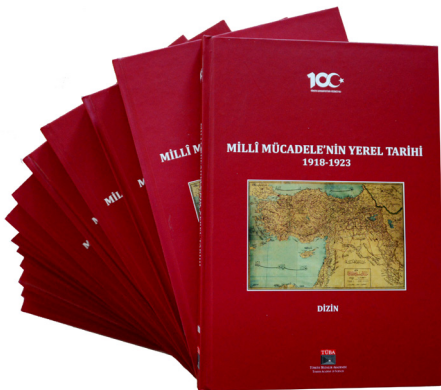
He expressed his hope that the meeting, which encourages science and research, will be successful and yield beneficial results for the country. He concluded, “I once again welcome you to Erzurum, the city where our Republic was founded, and to our University, on behalf of the Atatürk University family, and extend my deepest respect and regards to all of you.”

As part of the TÜBA Young Academy Conference, TÜBA Associate Member and TCMB Bank Council Member Prof. Muhsin Kar gave a presentation titled “Global Economy: Quo Vadis?” discussing the architecture of the international economic order, its principles, policies, and results. Prof. Kar emphasized the importance of collaborating with multilateral institutions, promoting liberal democracies, and cooperating in security and monetary areas, highlighting the golden age of the liberal economic order and the globalization of production.

In the Artificial Intelligence Panel, Prof. Hacı Ali Mantar from Gebze Technical University detailed the “Economic Impact of Artificial Intelligence”; Prof. Hüseyin Şeker from Birmingham City University discussed “The Power of Data and What It Empowers”; and Prof. Bahadır Kürşat Güntürk from Medipol University elaborated on “Current Status and Future Expectations in Artificial Intelligence.”



Local History of the National Struggle 1918-1923



The “Local Histories of the National Struggle” project, which aims to enrich Türkiye’s memory of the National Struggle by starting from the local, was launched in cooperation with TÜBA and Fatih Sultan Mehmet Vakıf University (FSMVÜ) within the scope of the 100th anniversary of the Republic. The project started with the aim of responding to the need to rewrite the historiography of the National Struggle in a democratic, participatory, polyphonic and polycentric manner, and to take the first steps of a paradigm shift by expanding the time, spreading the space and multiplying the subjects. Within the framework of the study, methods of writing history from the bottom up were applied, and a history and memory was created in which everyone could contribute, in which the democratic, civic and participatory possibilities of national and local history were utilized, and in which people could feel themselves as a part. The findings obtained as a result of research and analysis on the historiography of the National Struggle in 81 provinces of Türkiye were evaluated with a multidimensional and interdisciplinary method. It was published in 13 volumes under the title “Local Histories of the National Struggle”.

TÜBA-Earthquake, Urban Transformation and Sustainability Workshop



“Earthquake, Urban Transformation and Sustainability Workshop” was organized by TÜBA Environment, Biodiversity and Climate Change Working Group with the aim of restructuring cities in earthquake-prone regions in a safe, livable and sustainable manner and hosted by Kocaeli Health and Technology University.

Governor of Kocaeli İlhami Aktaş, TÜBA President Prof. Muzafer Şeker, Deputy Mayor of Kocaeli Metropolitan Municipality Berna Abiş, TÜBA Full Member and Rector of Kocaeli Health and Technology University (KOSTÜ) Prof. Muzafer Elmas and TÜBA Full Member and Executive Director of TÜBA-Environment, Biodiversity and Climate Change Working Group Prof. Mehmet Emin Aydın delivered opening speeches. Dr. Soner Şenel, District Governor of

Başıskele, Prof. Mustafa Alişarlı, Rector of Bolu Abant İzzet Baysal University, Prof. Türkay Dereli, Member of TÜBA and Rector of Hasan Kalyoncu University, Prof. Hasari Çelebi, Vice Rector of Gebze Technical University and Ahmet Karadağ, Deputy Mayor of Gölçük. TÜBA members, representatives from ministries, faculty members from state and foundation universities, local government representatives, researchers, experts and managers from various professional associations and private sector, and representatives from non-governmental organizations operating in disaster management and sustainability attended the workshop.

Within the framework of TÜBA's science-based guidance and consultancy function, the workshop was organized

to increase the level of awareness of the society against earthquake risk and to be prepared for possible disasters, to restructure buildings and areas under earthquake risk with a modern and resilient urbanism approach and to integrate them into urban transformation projects by protecting the ecological balance. In this context, urban transformation policies and the legal framework, financing models and incentives as well as the social and economic impacts of urban transformation were discussed. Within the scope of sustainability, green building design and energy efficiency were emphasized. Waste management, recycling, protection of natural resources and the realization of environmentally friendly practices in this direction were discussed.



TÜBA-International Ali Qushji Symposium

The International Ali Qushji Symposium organized by TÜBA and Istanbul Medeniyet University (IMU) History of Science Institute with the support of the Manuscripts Institution of Türkiye hosted by Istanbul Technical University (ITU) was held.

The symposium, started after the “Semerkant’tan İstanbul’a: Ali Qushji ve Çevresi Yazma Eser Sergisi” (From Samarkand to Istanbul: Ali Qushji and His Circle Manuscript Exhibition) which was held at the Rami Library with the participation of Minister of Culture and Tourism Mehmet Nuri Ersoy within the scope of the activities related to the declaration of 2024 as the “Year of Ali Qushji” by UNESCO, the symposium lasted for 2 days. The symposium commemorated the 550th commemoration of Ali Qushji’s death and traced his contributions in the fields of astronomy, mathematics and philosophy in the history of science. Scientists from different geographies discussed Ali Qushji’s contributions to the world of science in 6 sessions.

The symposium program started with the speeches of Mehmet Fatih Kacır, Minister of Industry and Technology; Prof. Muzaffer Şeker, President of TÜBA; Prof. Gölftetin Çelik, Rector of IMU; Dr. Coşkun Yılmaz, President of the Turkish Manuscript Society (TYEK); Prof. İpek Akın Karadayı, Vice Rector of ITU; and Prof. İhsan Fazlıoğlu, Director of the History



of Science Institute at IMU. Istanbul Governor Davut Gül also participated in the opening of the program, where Prof. Bakhran Abdulkhalimov, Vice President of the Academy of Sciences of Uzbekistan, and Rustam Jabbarov, Advisor to Firdavs Abdulkhalikov, Chairman of the Board of Directors of the Uzbekistan Society for the Study, Preservation and Promotion of Cultural Heritage (WOSCU), made welcoming speeches. Prof. F. Jamil Ragep, Member of TÜBA and winner of the International Academy Award, spoke under the title “Abd al-‘Alī al-Bīrjandī vs. ‘Alī al-Qūshjī, or Why Wasn’t Copernicus a Muslim?” and Dr. Sally Ragep presented “A Visual Exploration of ‘Alī al-Qūshjī’s Life and Works”.

Mehmet Fatih Kacır, Minister of Industry and Technology, said: “In the Turkish Century, we will witness a Türkiye that has a share in the global space economy,

maximizes the opportunities offered by space, and proves its presence in space science and technologies on a global scale.” At the opening ceremony of the International Ali Qushji Symposium, Kacır said that it was pleasing to see that Ali Qushji, who made significant contributions to scientific thought as well as being an astronomer and mathematician, was universally appreciated and that UNESCO declared 2024 as the “Year of Ali Qushji” on the occasion of the 550th commemoration of his death.

Artifacts hidden in libraries now illuminate the history of science.

Pointing out that Ali Qushji, a traveling scientist, was very valuable like all scientists of the period, Şeker said that it is an essential duty to transfer the observations, evaluations and studies of scientists about time, space and environment to future generations.

Prof. Şeker said: “There has been a serious work on the history of science in our country recently. As TÜBA, I find our Turkish Islamic Science and Culture Heritage Project, which we carry out under the auspices of our President, very valuable in this context; it is very valuable to bring the works hidden in libraries to light and to ensure that studies are carried out on presenting them to the benefit of the new generation, and it makes very important and valuable contributions to



world science. I would like to express my gratitude to UNESCO for this meeting and to the President of Uzbekistan Şevket Mirziyoyev and our President for their support in the process leading up to the declaration of 2024 as the Year of Ali Qushji, which was realized with the application of Uzbekistan and Türkiye. This year, UNESCO has declared not only the Year of Ali Qushji, but also the Year of Prof. Fuat Sezgin, Honorary Member of TÜBA, on the 100th anniversary of his birth, and the Year of Dîvânî Lugâti't-Türk. I would like to thank the Turkish National Committee of UNESCO for their support in all of these efforts."



TÜBA Member Prof. Yurdusev Elected as President of GID-EMAN



TÜBA Full Member Prof. Ahmet Nuri Yurdusev was elected President of GID-EMAN at the General Assembly of the Euro-Mediterranean Academic Network (GID-EMAN) held in Bar, Montenegro.

At the GID-EMAN Symposium organized by The Montenegrin Academy of Sciences and Arts (CANU) in Bar, Montenegro on October 3-4, 2024 with the title "Mediterranean Cultures in Dialogue", Academy Full Members Prof. Ahmet Nuri Yurdusev, Prof. Mehmet Bulut, Prof. Serap Güneş



and Prof. Mehmet Emin Aydın made presentations. At the general assembly held after the symposium, Prof. Yurdusev, Vice President of EMAN and President of AASSA, who ran for the presidency upon the recommendation of CANU, was unanimously elected president for the next three-year term with the support of TÜBA. Prof. Viorel Panaite, researcher at the Institute of Southeast European Studies of the Romanian Academy, was elected vice president.

Prof. Yurdusev stated that he was very pleased to be unanimously elected as the president of EMAN, which is composed of the science academies of the Mediterranean coastal countries, with the support of TÜBA, and said that he plans to manage a much more effective presidency process by increasing the activities of EMAN during his term of office. Within this framework, he stated that he will work for the expansion of EMAN from coastal countries to the greater Mediterranean basin.

President Şeker attended the 8th WOSCU International Congress

TÜBA President Prof. Muzaffer Şeker, at the invitation of the World Society for the Study, Preservation and Popularization of the Cultural Legacy of Uzbekistan (WOSCU) and The Academy of Sciences of Uzbekistan, attended the international congress “The Great Legacy of the Ancestors: The Foundation of the Third Renaissance” international congress.

The opening of the 3-day congress in the capital Tashkent began with the presentation of the Islamic Civilization Center under construction in Tashkent. President of Uzbekistan Shavkat Mirziyoyev addressed the participants with a message to the opening ceremony of the congress, noting the importance of discussing the future plans of the ongoing construction of the Center of Islamic Civilization of Uzbekistan. The congress, which continued in Samarkand after the opening ceremony, was centered around the Center, founded on the initiative of the President of the Republic of Uzbekistan Shavkat Mirziyoyev, which works to preserve, study and disseminate the rich scientific and cultural heritage left behind by the great scientists of the first and second eastern renaissance. Leading scientists from 35 countries of the world were invited to the congress, where new projects for the Center for Islamic Civilization of Uzbekistan were discussed. Experts who have carried out important studies on the historical



and cultural heritage of Central Asia were invited to the congress, which was held for the eighth time. A total of 300 scientists from Uzbekistan and other countries participated in the congress, where the contribution of Uzbekistan and other Central Asian countries to world civilization, their legacy to the world of science and their re-investigation were discussed. Sessions were held under the following headings: Pre-Islamic Period in Central Asia: State, Spiritual Life, Intercultural Dialogue; Contemporary Quran Studies: New Approaches to the Examination of Islamic Spiritual Heritage; Education and Enlightenment in the Medieval World: From Schools to Universities (9th-20th Centuries).

Secretary General of TURKSOY Sultan Raev, Director General of the Islamic Research Center for History, Art and

Culture (IRCICA) Prof. Mahmud Erol Kılıç and President of TUBA Prof. Muzaffer Şeker spoke about the importance of the congress. President Şeker said that he was honored to be together for the rich cultural heritage of Uzbekistan and the efforts to protect, develop and transfer it to future generations. Stating that Uzbekistan's cultural heritage is a vital resource for both the Turkish and Islamic world, Şeker said: “These lands, located in the heart of Central Asia, have been the cradle of many civilizations throughout history and have made great contributions to the world of science, art, literature and thought. The fundamental works and ideas of Islamic civilization were born and developed in Uzbekistan. This ancient heritage has been enriched by the works of great Islamic scholars, poets and thinkers over the centuries and has formed the cultural fabric of Uzbekistan.”



Nobel Prize in Economics to Prof. K. Daron Acemoğlu

The 2024 Nobel Prize in Economic Sciences The Sveriges Riksbank Prize was awarded to Prof. K. Daron Acemoğlu.

Prof. Daron Acemoğlu, together with Prof. Simon Johnson and Prof. James A. Robinson, received the prize “for studies of how institutions are formed and affect prosperity”.

The work of Acemoglu, Johnson and Robinson contributes to innovative research on what affects the economic well-being of countries in the long run. Their empirical research reveals the fundamental importance of the type of political and economic institutions put in place during colonization. Their theoretical research contributes to an understanding of why it is so difficult to reform colonial institutions, and points to some of the conditions under which it can happen. The work of the



laureates is having a decisive impact on ongoing research in both economics and political science. Their insights on how institutions affect welfare show that working to promote democracy and inclusive institutions is an important way to foster economic development.

Prof. Acemoğlu was awarded for his work in the field of economics within the scope of TÜBA 2006 Science Service and Incentive Awards in Social Sciences. In 2013, he received the Presidential Culture and Art Grand Award.

President of the Academy of Sciences of Uzbekistan Prof. Dr. Yuldashev Passed Away



President of the Academy of Sciences of Uzbekistan Prof. Bekhzod Yuldashev passed away at the age of 79.

Prof. Yuldashev, the President of the Academy of Sciences of Uzbekistan, which is an observer academy in the Union of National Academies of Sciences of the Turkic World (UNASTW) since 2017, worked in the field of physics and mathematics, and served as the Director of the Institute of Nuclear Physics and a member of the Senate between 2000 and 2005. For more than five years, he conducted research at various nuclear centers in the United States. He worked for about four years

in international energy organizations, including the International Atomic Energy Agency (IAEA) in Vienna, Austria. He was awarded the state orders “Mehnat shuhrati” (Glory of Labor) and “Fidokorona khizmatlari uchun” (For Devoted Service) and the titles of honored scientist of Uzbekistan and Karakalpakstan.

Prof. Bekhzod Yuldashev's passing was deeply regretted and on behalf of the Academy, TÜBA President Prof. Muzaffer Şeker expressed his condolences to his family, colleagues and the academic community of Uzbekistan.

TÜBA-AASSA International Symposium on Science Diplomacy for Sustainable Development



The international symposium titled “Science Diplomacy for Sustainable Development” was held at Hacettepe University Cultural Center in cooperation with TÜBA and the Association of Asian Science Academies and Societies (AASSA).

In the symposium, which was planned to create a roadmap to discover and use the power of science diplomacy to overcome the challenges facing the world, many experts, policymakers, diplomats, representatives of regional organizations, scientists, researchers, members of science academies and societies and many names from the world of academia came together with a comprehensive approach to sustainable development. Dr. E. William Colglazier from the Center for Science Diplomacy of the American Association for the Advancement of Science and Prof. Hüseyin Şeker from Birmingham City University delivered the opening speeches of the 2-day symposium, which was attended by nearly 30 scientists from different countries of the world in 5 sessions. Hacettepe University Vice Rector Prof. Sibel Aksu Yıldırım made a welcoming speech.

We recognize the vital role of science in promoting peace, security and prosperity.

TÜBA President Prof. Muzaffer Şeker said that in an era when global problems such as pandemics, climate change, migration and environmental pollution know no

national borders, the need for international cooperation has never been more urgent. TÜBA President Prof. Dr. Muzaffer Şeker said that science diplomacy, by its very nature, transcends political divisions and paves the way for collaborative efforts and the development of innovative solutions and policies that promote sustainable development and ensure a better future for all.

Diplomacy is peaceful and public.

AASSA President Prof. A. Nuri Yurdusev said that diplomacy has traditionally been defined as a peaceful activity carried out by official representatives on behalf of legal-political entities within any international system, but today it has gone beyond this narrow scope. “Diplomacy is now practiced not only by legal-political entities of states but also by other entities and even non-state entities. Moreover, the scope of diplomacy has expanded beyond the high-political affairs to which it was traditionally

confined, to cover a wide range of issues of social life. In this context, scientific organizations, scientific cooperation and sustainable development have also become part of diplomacy.” he said.

Science and engineering diplomacy is essential to manage technology.

Dr. E. William Colglazier of The American Association for the Advancement of Science’s Center for Science Diplomacy published “Science Diplomacy for Sustainable Development: Successes and Challenges” and pointed out that with the acceleration of the scientific and technological revolution, science and engineering diplomacy has become increasingly important. He noted that technology offers great opportunities but also poses extraordinary threats and challenges. He said that science and engineering diplomacy is essential to recognize and manage opportunities, problems and crises.



TÜBA Delegation Attended the World Science Forum

The 11th World Science Forum (WSF) was held in Hungary's capital Budapest.

The 12th World Science Forum was hosted by Indonesia.

During the program, scientists came together in 8 thematic sessions and 4 Ministerial Round Tables, including plenary sessions on Trust in Science, Risk Assessment, The Summit of the Future, Cooperation, Coordination and Governance in Science, The Parliamentary Session was entitled "Reforming Science Ecosystems: What Works, What's Missing, How to Do Better?". As a result of the voting at the end of the Forum, it was decided that Indonesia will host the 12th World Science Forum planned for 2026.

TÜBA was represented by Prof. Muzaffer Elmas, Full Member of the Academy, and the delegation included TÜBA Associate Member Prof. Şener Aktürk, TÜBA Young Academy Members Prof. Hacer Topaktaş Üstüner and Assoc. Prof. Muhammet Zahit Atçıl, and TÜBA Young Academy Representative Asst. Prof. Mürsel Doğrul took part.

Turkish - Hungarian Session at WSF

In the session titled "Hungary-Türkiye Relations within the Framework of Science Diplomacy" organized by TÜBA and the Hungarian Academy of Sciences, historical, current scientific and cultural relations between Hungary and Türkiye were discussed in detail; the multifaceted nature of Hungarian-Turkish relations and the role of science diplomacy in strengthening bilateral relations were discussed. The session started with an examination of the multidimensional



cooperation that has linked Hungary and Türkiye for centuries, and was moderated by TÜBA Associate Member Prof. Şener Aktürk, who presented the session titled "Hungary and Türkiye: Multidimensional Cooperation Throughout Centuries". TÜBA Honorary Member Prof. Gábor Hamza discussed the legal relations between the two countries in the 19th and 20th centuries with his presentation titled "Legal Relations between Türkiye and Hungary in the 19th and 20th Centuries" and shed light on the issues that shaped Hungarian-Turkish interactions and affected diplomatic and legal fields. TÜBA Young Academy Members Assoc. Prof. Muhammet Zahit Atçıl presented "Relations between Türkiye and Hungary: A Historical Perspective" offered a historical perspective on the development and interaction of relations between Türkiye and Hungary, while Prof. Hacer Topaktaş Üstüner examined the fields of Turkology and Hungarology as complementary disciplines that foster scientific cooperation and cultural exchange in Turkology and Hungarology as Areas of Scientific Partnership. Üstüner

explained how these disciplines build intellectual bridges and foster mutual understanding. Prof. István Vásáry, Member of the Hungarian Academy of Sciences, emphasized the important contributions of Hungary to the Turkish academy with the "Contribution of Hungarian Turkology to the Evolution of Turkish Studies in Türkiye" and presented his views on the field of Hungarian Turkology and its impact on the evolution of Turkish studies in Türkiye.

TÜBA Delegation's visit to the Embassy of the Republic of Türkiye in Budapest

Following the forum, TÜBA delegation paid a visit to Ambassador Gülşen Karanis Ekşioğlu, Ambassador of Türkiye to Budapest. During the meeting, Ambassador Ekşioğlu stated that TÜBA's contribution to the "2025 Year of Science and Innovation", which will be organized by universities, research organizations and academics under the theme "Together for a Better Future", will be very valuable. Prof. Elmas presented Prof. Ekşioğlu with a gift of the Academy's recent publications.

TÜBA, Joint Declaration for the Advancement of Science and Technology in Asia

TÜBA signed the “Declaration on the Advancement of Science and Technology in Asia” following the discussions at the 2024 Asian Science Academies Forum organized by the Korean Academy of Science and Technology (KAST).

The forum was held in November 2024 at the invitation of KAST, with the participation of Prof. Muzaffer Şeker, President of TÜBA, and Prof. Ahmet Nuri Yurdusev, Full Member of TÜBA

and President of the Association of Asian Science Academies and Societies (AASSA), as Asian countries are becoming increasingly influential on a global scale in various fields such as economy, culture and science, and the importance of science and technology as the main driver of national growth has increased. A joint declaration was published based on the ideas, suggestions and predictions put forward at the forum.

In addition to TÜBA, representatives of KAST, AASSA, Nepal Academy of Science and Technology, Malaysian Academy of Sciences, Academy of Sciences of the Republic of Uzbekistan, Indonesian Academy of Sciences, The Science Council of Japan, Pakistan Academy of Sciences and The National Academy of Science and Technology of the Philippines participated in the declaration.



TÜRKİYE BİLİMLER AKADEMİSİ
TURKISH ACADEMY OF SCIENCES



Joint Declaration for the Advancement of Science and Technology in Asia

Nov 21, 2024

We, the Presidents of the National Academies of Sciences in Asia resolve, in common conviction that Asian nations must strengthen policies promoting the advancement of science and technology within Asia and expand the continent's contribution to the global community. This is essential for fostering sustainable and inclusive economic and social development and improving the quality of life across Asia, thereby providing a vital driving force in the 21st century Pax Asiana.

Asia is home to over 2,000 languages and a multitude of diverse cultures. The countries of Asia exhibit uniqueness in population size, stages and rates of economic development, as well as levels of technological advancement. This diversity and unique heritage lays the foundation for complementary cooperation, creating synergies through exchange and collaboration.

In the past three decades, Asia has emerged as a global hub for trade and manufacturing, driven by remarkable innovation and economic development. Currently, with 60% of the world's population, Asia accounts for 57% of global GDP growth and 64% of patent filings, thereby spearheading global development.

However, Asia today faces a range of difficult challenges, including the demand for multilateral cooperation in a fractured world, rising geopolitical tensions, rapid advancements in artificial intelligence (AI) and software technology, demographic declines affecting regional industrial structures, and urgent environmental concerns stemming from climate crises, as well as complex energy issues.

To effectively address these mounting challenges, a collective effort is needed for the advancement of science and technology. We need to make bold investments in research and development (R&D) and aggressively cultivate scientific and technological talents-both widely recognized as key drivers of a nation's long-term prosperity and sustainable development.

However, public investment for scientific and technological research and education in Asian countries is notably insufficient. We, the presidents of the national academies of sciences in Asia, express our grave concerns about the inadequate investment and support from our governments.

The immense potential of Asian scientists is constrained by inequitable infrastructure to facilitate mutual collaboration and scientific exchanges. Just as the European Union (EU) offers programs and funding to foster collaboration among scientists within Europe, science academies in Asia need to promote and support educational and research collaborations among scientists across Asia.

We, presidents unanimously recognize the need to enhance R&D budget in each country, expand science and technology education programs, modernize scientific research infrastructure, and actively support joint research initiatives and educational collaborations among scientists in the region.

Therefore, acknowledging the urgent need for both qualitative and quantitative expansion in science and technology research and education in Asia, we recommend the following policies and initiatives for the governments of member countries in:



TÜRKİYE BİLİMLER AKADEMİSİ
TURKISH ACADEMY OF SCIENCES



- Recognize that the advancements in science and technology are the cornerstone for sustainable economic growth and for improving the quality of life, including developments in food security, environmental sustainability, energy sufficiency, human capital, and extended healthy lifespans.
- Establish long-term visions and set ambitious goals for science and technology that are tailored to each country's circumstances, and significantly increase national R&D investments from both public and private sectors, and establish alternative funds.
- Strengthen both quantitative and qualitative investments to cultivate science and technology talent through innovative educational methods that integrate science and technology curriculum from elementary to higher education levels.
- Commit, in collaboration with respective science academies, to actively foster joint mission-oriented research and solution-driven collaboration, knowledge development, and exchanges among science and technology personnel. This includes supporting joint research projects, expanding researcher and student exchange programs, and strengthening the science and technology network within the region.
- Support the development of the Asian science and technology community through advocacy for peace, openness, cooperation, and healthy competition, via open science and Asian open innovation platform that also taps into vast indigenous knowledge systems of the region, while safeguarding the freedom of research and publication for scientists who shall adhere to global ethical standards.

TÜBA-Training Program on Access to Cultural Heritage for Persons with Disabilities

TÜBA's INCLUSION ERASMUS+ KA220 HED Project, funded by the Ministry of Foreign Affairs, Directorate for European Union (EU), Turkish National Agency as part of the Erasmus+ program, was held in Sarajevo between 22-25 October 2024.

TÜBA President Prof. Muzaffer Şeker, President Advisor Assoc. Prof. Kevser Çınar and Asst. Prof. Mürsel Doğrul attended the project meetings hosted by the Balkan Museum Network (BMN), which aims to improve access to culture and heritage for people with disabilities and brings together experts and institutions across five European countries.

On the first day of the program, Prof. İbrahim Diken, Director of the Research Institute for the Disabled, Research Assistants Uğur Onur Günden and Tezcan Çavuşoğlu from Anadolu University, Dr. Ümit Savaş Taşkesen, representing the Association for Education and Development Support for Individuals with Autism (Otizimli Bireyler için Eğitim ve Gelişim Desteği Derneği, SOBE for short), Teacher Şerife Küçükşantürk and Teacher Cemre Gürel made presentations on the project's education programs. In addition to institutions such as Stichting for Education on Agility Liberating Structures - SEALS (Netherlands) and ARTIFACTORY (Greece), as members of the Balkan Museum Network, Bosnia



and Herzegovina Art Gallery, Bosnia and Herzegovina History Museum, Zenica City Museum and Bitola Institute and Museum from North Macedonia participated in the trainings. Students from the Faculty of Philosophy at the University of Sarajevo also shared their knowledge and experience on accessibility in museums and galleries. The participants had the opportunity to exchange knowledge and experience, focusing on different aspects of accessibility and to continue the implementation of the INCLUSION project "Training HED Students to Create Transformative Cultural Experiences for Audiences with Disabilities", a 24-month initiative that will end in April 2026.

BMN Director Aida Vežić pointed out that the collaboration between heritage

guardians from cultural institutions and students and staff from higher education institutions is the highlight of the INCLUSION project: "This collaboration focuses on the common goal of ensuring the participation of people with disabilities in cultural life. At BMN, we have been working for more than 10 years to help museums become more accessible for everyone."

TÜBA President Prof. Muzaffer Şeker emphasized that accessibility is not a privilege, but a basic human right, and expressed his happiness to share this comprehensive experience with the project partners. He also said that the knowledge gained during the trainings will be applied in their own institutions to ensure wider access to cultural content for individuals with various disabilities.



Science for Global Transformation

The final declaration signed by the Science-20 (S-20) community, which consists of representatives of the national academies of the G-20 countries, was signed by the presidents of the national academies of the G-20 member countries.

TÜBA President Prof. Muzaffer Şeker, representing Türkiye, signed the S-20 Declaration, which was created with the contributions and participation of the member academies to be presented

to the leaders of the G-20 countries by S-20, the organization of the national academies of sciences of the G-20 countries. As a result of the S20 Meeting held in Rio de Janeiro and attended by representatives of G20 countries, the final declaration titled "Science for Global Transformation" was published.

In addition to Türkiye, the declaration was signed by the Presidents of the Science Academies of Argentina, Australia,

Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, South Africa, South Korea, the United Kingdom, the United States and the EU.

Going forward, the S-20 declaration will serve as a guide for the G20 final declaration to be signed by the G20 heads of state and government.





SCIENCE FOR GLOBAL TRANSFORMATION
S20 Brasil 2024
Communiqué

Preamble

In September 2015, at the United Nations Headquarters, representatives of 193 countries approved a global agenda to be achieved by 2030. The signatory countries recognized that to make our planet suitable for sustainable living, we urgently need to take action on the 17 Sustainable Development Goals (SDGs). Among the most important identified was eradicating poverty in all its forms and dimensions, including extreme poverty, which is the greatest global challenge and an indispensable requirement for sustainable development. Bold and transformative measures were outlined, with our governments committing to embrace them to steer the world towards a sustainable and resilient path. These actions are integrated and indivisible and must balance the three dimensions of sustainable development: social, economic, and environmental. Science and international scientific collaboration serve as key mechanisms to reach these goals. With this standpoint, under the motto “Science for Global Transformation”, the S20 Academies of Sciences met in Rio de Janeiro in 2024, and focused the discussions on five themes related to the UN 2030 Agenda: (1) Artificial Intelligence; (2) Bioeconomy; (3) Energy Transition Process; (4) Health Challenges; and (5) Social Justice.

We present to the G20 governments and society, the S20 Brasil 2024 recommendations with the expectation that these will be considered by our governments and help guide the final document of the G20. We also draw attention to the fact that G20 countries should consider their demographic trends, proactively anticipating and adapting to changes in their workforce size and age distribution, as these factors will significantly impact social security, pension systems, health and welfare programs, thereby affecting economic growth and competitiveness. It is essential for the educational system to address the diverse needs of both aging and youthful populations. Grasping social and demographic trends is essential for anticipating technological requirements and driving innovation.

Artificial Intelligence

AI is a critical driver for development, especially in healthcare, education, and tackling climate change. It may also pose risks, including the potential to widen inequalities and negatively impact the environment. To navigate these challenges effectively, AI's advancement requires a robust ethical framework. The rapid pace of AI innovation creates significant uncertainties for governance, complicating efforts to manage its implications. While AI might result in job losses in some industries and regions, it also has the potential to create new job opportunities in others.

Recommendations:

1. Create policies in an AI-driven economy to assure job security and workers' rights that are flexible and adaptable, rooted in shared ethical principles. This will ensure innovation while reducing societal risks.
2. Contribute to establish AI regulations and data governance standards that benefit all countries fairly and uphold human values.
3. Enable citizens through education to make informed decisions about AI, understanding its potential, benefits, limitations, and potential risks.
4. Work together to create and share large, valuable, and well-curated scientific datasets, respecting data governance.
5. Invest in data infrastructure, high-performance computing, and training to use AI effectively in fields of application.
6. Prioritize AI technologies for the benefits of humanity and environmental sustainability.



7. Support scientific communities in researching, developing, and effectively using AI across various disciplines.
8. Evaluate establishing regional academic research centers that share AI infrastructure.
9. Seek to establish intergovernmental frameworks to oversee AI technologies that might operate beyond human control or oversight.
10. Advocate for AI to contribute effectively to achieving the Sustainable Development Goals (SDGs).

Bioeconomy

Bioeconomy encompasses the sustainable use of biological resources, aiming to transform major sectors of the economy, ensuring fair biotrade and promoting sustainable innovation. S20 members understanding on the subject is: the bioeconomy is based on the supply of goods derived from renewable biological resources (biobased products, food, feed, bioenergy, health supplies and pharmaceuticals) comprising all economic activities that depend upon these resources and their derivatives, protecting traditional knowledge and practices, and in line with the United Nations Sustainable Development Goals. Moreover, bioeconomy models must aim to meet certain criteria: 1) conserve and protect natural resources and support restoration efforts; 2) adopt appropriate technologies, tailored to each biome; and 3) engage Indigenous and local communities in the decision-making while protecting traditional knowledge, upholding human rights, and promoting capacity building.

Recommendations:

1. Invest in research and infrastructure: Support cutting-edge research to drive technological breakthroughs, enhancing innovations in biogenics feedstocks, bioenergy, medicines, and other materials from biomass, forest, plants and microorganisms from the biodiversity of different biomes.
2. Integrate social justice: Promote sustainable and inclusive bioeconomic models, enabling community-driven innovations that protect and integrate traditional knowledge and culture, and focusing on leveraging local biological resources to promote regional economic growth.
3. Build robust international and multilateral cooperation: The G20 nations should reach a consensus on the role of the bioeconomy as one of the strategies for tackling climate change, biodiversity loss, poverty, and human and non-human health. Formulate a joint policy framework that enables countries to implement bioeconomy programs, invest in social and technological innovations, share critical knowledge, improve the quality of life, and safeguard natural resources.

Energy Transition Process

The energy transition process requires continued innovation and international collaboration to achieve a sustainable and resilient future, balancing technological, economic, environmental, and social dimensions to create a cleaner and more equitable world. Transitioning from fossil-based to affordable and clean energy systems is essential for addressing climate change, resource depletion, and ensuring global energy security. Integrating social and economic considerations remains crucial to guarantee universal access to sustainable, clean, affordable, and reliable energy, thereby addressing the persisting issue of energy poverty in many parts of the world. Energy transition being a complex issue, G20 countries must ensure just and equitable transitions.

Recommendations:

1. Energy transition should integrate clean energy sources such as solar, wind, hydropower, and geothermal, as well as mitigation and negative emissions through technological and nature-based approaches.
2. The overall efforts to reduce emissions in the energy transition process should rely on the increasing use of low-emission energy sources, including nuclear and renewable energies, in a mix that varies from one country to another, and moving forward to phasing out coal.



3. Carbon capture, utilization, and storage, along with market-based approaches, such as carbon pricing on a global scale, should be used for minimizing CO₂ emissions from fossil fuels as we move away from these sources toward a low-emission energy future.
4. Biofuels and sustainable hydrogen could be employed, particularly for sectors like transportation and heavy industry.
5. Ocean energy sources, including tidal, wave, and thermal, could also be considered to generate electricity.
6. Batteries, complementing traditional renewable sources, could be utilized to offer storage and transportation of energy, and baseload power generation solutions.
7. Pursue enhanced energy efficiency and ensure equitable reductions in energy demand, which are critical for significantly lowering CO₂ emissions and mitigating climate change.
8. Complete recycling processes for materials used in renewable energy systems should be implemented for sustainable and cleaner energy solutions.
9. Public outreach education, by enhancing awareness of the principles of reduce, reuse and recycle, along with stakeholder engagement, should both be embraced to properly address social acceptance and gain community support to clean energy projects.
10. To ensure the success of energy transition, an ongoing international dialogue that facilitates regular updates and the sharing of best practices among nations should be established.
11. Social and economic considerations should include job creation, technological advancements, equitable access to energy, public engagement and environmental justice.

Health Challenges

There is urgent need to develop a more equitable, sustainable, and resilient health system by emphasizing preventive healthcare and healthy lifestyles, particularly in communities with known vulnerabilities. The achievement of universal health coverage with emphasis on access, quality and community engagement holds the potential to drive improvements in various aspects of health, spanning mental health, communicable and non-communicable diseases management, maternal and child health as well as longevity issues in the growing aging populations. Despite the large burden that mental ill-health imposes on people and on economies, many countries continue to neglect mental health care, and the unmet need for treatment remains high. Making mental health care policy a priority would enhance people's well-being and have significant social and economic benefits. Climate and environmental change, along with biodiversity loss and pollution, directly and indirectly impact health and societal sustainability. These factors affect agricultural production, food prices, energy availability and access to high quality water and air, with low- and middle-income countries and groups with known vulnerabilities suffering the most. Rising global temperatures and extreme weather events create conditions that favor the spread of both communicable and non-communicable diseases. This requires an integrated One Health approach that recognizes the interdependencies between the health of people, animals, and ecosystems.

Recommendations:

1. Ensure global access to essential vaccines, medicines and diagnostic tools for all. Promote sustainable local and regional production through capacity-building in research and innovation, knowledge sharing, and technology transfer.
2. Strengthen global surveillance, open science, and information sharing for early detection of health emergencies and public health events of international concern.
3. Address the challenges of antimicrobial resistance by urgent development of new antimicrobials, and supporting alternative solutions, while promoting a rational use of antibiotics in people and animals worldwide.
4. Develop policies to promote healthy lifestyles, including physical activity and quality nutrition, to address issues such as obesity, tobacco, alcohol, substance abuse, ultra-processed food and sugar-sweetened beverages.



5. Promote effective communication strategies for disseminating health information, countering disinformation, and conducting health campaigns.
6. Promote democratic digital health and technological transformations that are crucial for supporting strong and resilient universal health systems.
7. Prioritize mental health care, especially for the youth and groups with known vulnerabilities, with investments in prevention programs to reduce violence and address substance abuse.
8. Develop long-term support for the management of the health of older people.
9. Integrate climate change issues across all key G20 Health Working Group priority areas and identify opportunities for health co-benefits in developing climate policies which expand beyond the health sector.
10. Address climate and environmental changes impact on communicable and non-communicable diseases by research and environmental management and improved surveillance.
11. Leverage global resources focused on the health impacts of climate change and environmental change with a focus on groups with known vulnerabilities, such as those exposed to extreme weather events. Enhance climate-resilient health systems to better prepare for climate-related crises.

Social Justice

Despite the extraordinary technological progress attained through the contributions of science, glaring inequalities and social disparities remain. Poverty continues to be a scourge that afflicts vast segments of the global population. Many humans are facing food deprivation, lack of shelter and medical care, and are deprived of access to energy, clean water and basic sanitation. Digitalization, artificial intelligence and robotization cause the dismantling of jobs and the creation of new ones at an unprecedented pace. Additionally, the changing job market presents challenges for retraining the workforce, particularly in low- and middle-income countries. While poverty and inequality can exist independently, they are frequently intertwined, creating a complex social landscape.

Social justice requires ending poverty, reducing inequalities, and promoting inclusion so that no one is left behind. Harnessing the power of science is not only a pathway but a responsibility in this quest. Societies can create a more equitable and sustainable future through technological innovation, data-driven policymaking, and advancements in various scientific fields. Through the integration of scientific knowledge, technological innovations and development strategies, we can address the root causes of poverty and exclusion, paving the way for a world where everyone can thrive and contribute to the betterment of humanity. Science should be seen inherently as a social practice requiring ethical considerations and awareness of its consequences.

Recommendations:

1. Construct a perspective of rights and guarantees that considers the value of developing institutions to promote social inclusion and cultural diversity. People should be in the center of all social, economic and development policies; allocate necessary resources to ensure full economic, social, cultural, and environmental rights.
2. Harness the power of science responsibly: generate knowledge and make discoveries that enhance social, environmental, and human well-being; pursue scientific advances with ethical considerations and awareness of consequences; integrate scientific knowledge into development strategies to address poverty and exclusion.
3. Promote interdisciplinarity and local community collaboration: combine social, natural, and life sciences to decrease discriminatory practices and promote social justice; apply scientific insights into human behavior to develop interventions challenging stereotypes and biases.
4. Emphasize the ethical imperative of reducing all types of inequalities to enrich human resources and use social justice to eliminate discrimination, intolerance, and violence to build a more equitable society.



5. Expand infrastructure for universal internet access; enhance digital literacy to ensure all segments of society benefit from digital advancements; formulate inclusive and equitable approaches to digital development.
6. Address science-related disinformation in digital media to prevent adverse societal impacts, while developing national, regional, and global strategies involving scientific communities and civil society.
7. Enhance scientific literacy: cultivate scientific literacy and awareness of science as a self-correcting process; equip societies to meet future technological challenges through better scientific understanding.
8. Promote education, social equality, and fair treatment for all: focus on health and well-being for all demographic strata; transition to sustainable energy and industry practices; ensure sustainability in food production, land use, water management, and ocean health; develop sustainable, just, and resilient cities and communities; harness the digital revolution for sustainable development.

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Argentina - National Academy of Exact, Physical and Natural Sciences

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Brazil - Brazilian Academy of Sciences

Canada - Royal Society of Canada

China - Chinese Academy of Sciences

France - Académie des Sciences

Germany - German National Academy of Sciences Leopoldina

India - Indian National Science Academy

Indonesia - Indonesian Academy of Sciences

Italy - Accademia Nazionale dei Lincei

Japan - Science Council of Japan

Mexico - Mexican Academy of Sciences

Russia - Russian Academy of Sciences

South Africa - Academy of Science of South Africa

South Korea - The Korean Academy of Science and Technology

Türkiye - Turkish Academy of Sciences

United Kingdom - Royal Society

United States - National Academy of Sciences

European Union - Academia Europaea

TÜBA-Urban Transformation and Sustainable Cities Workshop

TÜBA-Urban Transformation and Sustainable Cities Workshop was hosted by Sinop University. The two-day workshop was planned to provide information on transportation and mobility, environmental management, energy efficiency and policies, security, inclusiveness and governance, local environmental planning, implementation examples and lessons learned in cities with both national and international sustainable cities approach in planning and designing urban transformation studies.

In the workshop, which was designed as a platform for the exchange of ideas organized by the TÜBA-Environment, Biodiversity and Climate Change Working Group, with the aim of addressing the issue in all its dimensions and determining transformation strategies for sustainable cities, the main topics of Urban Transformation, Sustainable Cities, Access to Services in Sustainable Cities, Environmental Management, Energy Policies, Economic Sustainability of Cities were discussed. Long-term solution proposals were presented and existing problems were effectively addressed.

The program, which started with the speeches of TÜBA President Prof.



Muzaffer Şeker, Sinop University Rector Prof. Şakir Taşdemir and TÜBA Environment, Biodiversity and Climate Change Working Group Executive Director Prof. Mehmet Emin Aydın, was attended by Sinop Governor Dr. Mustafa Özarslan, Sinop Governorship Provincial Director of Environment and Climate Change Salih Livoğlu, representatives of public institutions and organizations, researchers, university academic and administrative staff, students and guests.

Six sessions were organized at the workshop.

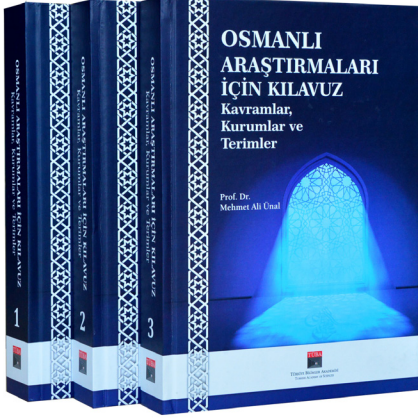
A total of six sessions were held at the workshop in the Olvido Conference Hall

of Sinop University Ahmet Muhip Dıranas Application Hotel; the sessions were chaired by TÜBA Members Prof. Mehmet Emin Aydın, Prof. İsmail Koyuncu and Prof. Eyüp Debik, Prof. Mete Tayanç, Prof. Gülen Güllü, Prof. Güleda Engin. The topic of urban transformation and sustainable cities was discussed under 19 headings by expert scientists from different universities in Türkiye.

It was informed that the book, which will consist of the papers of the speakers to be prepared after the workshop, will be shared with the relevant institutions and presented to the benefit of policy makers in a short time.



TÜBA Publishes Guideline for Ottoman History



TÜBA has published the three-volume work titled “Guideline for Ottoman Studies: Institutions, Concepts and Terms” prepared by Prof. Mehmet Ali Ünal, which includes approximately 22,000 terms.

This work, titled “Guideline for Ottoman Studies: Institutions, Concepts and Terms” is presented for the benefit of everyone involved in academic work, especially university students. It serves as a reference source for scholars. Originally published in 2011 under the title “Ottoman History Dictionary,” the work has been updated and reintroduced to the literature after 13 years of development by Prof. Ünal. The guide covers Ottoman

political, military, social, and economic institutions, bureaucratic structures, and the terms and concepts used during the Ottoman period, providing detailed explanations. It also elaborates on measurement units, taxes, and significant military and political events of the era. Many institutions, concepts, and terms not found in existing dictionaries are included. Noting that the work incorporates original information from hundreds of sources, travelogues, chronicles, and studies, Prof. Ünal said, “I meticulously read and examined the ten-volume travelogue of Evliya Çelebi from start to finish. Evliya Çelebi records every institution, customs, concepts, measurement units, and names of ships and boats he encountered, not only within the Empire’s geography but also in Iran, Sudan, and Austria. The information he provides about musical instruments and music modes surprises those working in the field of musicology. Likewise, the works of Peçevî, Naima, Kâtip Çelebi, and the Vâkı’ât-ı Ruzmerre by Üsküdarlı Abdullah Efendi published by TÜBA are quite rich in Ottoman terminology. Ahmed Cevdet Paşa’s Tarih-i Cevdet is an important work for the history of Ottoman institutions in the 18th century. There are

hundreds of such works. For example, the phrase ‘Kâfir Şapkası Başına Olmak’ only appears in Naimâ’s history. It is a form of oath. During a discussion about the Grand Vizier Fazıl Ahmed Paşa’s campaign to Crete, he swears ‘I will certainly go; if I don’t, let a kafir’s hat be on my head.’ It is similar to an oath meaning ‘let me be a nonbeliever if I don’t do it.’ The phrase ‘Sözüne Mum Yapıştırmak’ also appears only in Naimâ. It means that no one’s word is cut off or silenced.”

Prof. Ünal expressed his honor at the publication of his work following TÜBA’s detailed evaluation and acceptance. He said, “TÜBA, as one of the most serious and prominent institutions in Türkiye supporting science and scientific work, has published many valuable source works and some studies. The recognition it has received worldwide in scientific book publishing and its contribution to the publication of this work is highly valuable. Therefore, having my 40-year effort published by an institution like TÜBA is very important for reaching the target audience. I am proud of the publication of my work by TÜBA after a long review process; it is a matter of honor for me.”



TÜBA Puts Plastic Problem into Spotlight

TÜBA’s Environment, Biodiversity and Climate Change Working Group published the details of the risks caused by microplastics and endocrine disruptors and their effects on agriculture, marine, climate and living health, which were discussed at the “Microplastics, Endocrine Disruptors and Their Environmental Impacts Workshop” held in the TRNC, under the editorship of TÜBA Full Member Prof. Mehmet Emin Aydın and Prof. Mete Tayanç.

Microplastics, Endocrine Disruptors and Their Environmental Impacts focuses on the rapidly increasing environmental problems in the world recently, the causes of these problems, the negative effects they cause and the solution proposals, and includes contributions and evaluations of experts from different scientific disciplines. In addition to the current situation on micropollutants, plastics and endocrine disruptors, the book provides guidance to decision-makers on the assessment of the transport processes of pollutants, their impacts on the environment and health, and recommendations on sustainable strategies and policies for solutions.

TÜBA Member Prof. Erdoğan Elected to ISC Executive Group



At the 7th Annual Meeting of the European Members of the International Science Council (ISC), Prof. İlçay Erdoğan Orhan, a Full Member of the Academy, was elected to the ISC European Members Executive Group.

Great Honor for TÜBA Working Group Member Prof. Ercişli

The Russian Academy of Sciences, affiliated to the Ministry of Science and Higher Education of the Russian Federation, decided to award



Prof. Sezai Ercişli, a member of the Environment, Biodiversity and Climate Change Working Group of the TÜBA and a faculty member of Atatürk University Faculty of Agriculture, Department of Horticulture, with the Irakly Sinyagin Medal for 2024.

"Synthetic Biology for Therapeutics" by TÜBA GEBİP Member Assoc. Prof. Şeker



"Synthetic Biology for Therapeutics - Engineering Cells for Living Drugs" edited by TÜBA GEBİP Member Assoc. Prof. Urartu Özgür Şafak Şeker was published by DeGruyter Publishing House.

The book covers the latest developments in cellular therapies, including engineered microbial therapies, CAR-T therapies, etc. from the perspective of synthetic biology and serves as a guide for scientists in both biotechnology and medicine.

ASME Medal to TÜBA Member Prof. Bejan



TÜBA Honorary Member Prof. Adrian Bejan has been awarded the ASME Medal for 2024 by the American Society of Mechanical Engineers (ASME).

The medal will be presented to Prof. Bejan at the International Mechanical Engineering Congress and Exposition (IMECE) in Portland, Ore. in November 2024 for the originality of his work and its lasting impact on the field of engineering; advances in the new science of energy, motion, form and evolution; and bridging biological, geophysical and sociological systems.

TÜBA Member Prof. Mandal Appointed as ITU Rector

Since 2018, TÜBA Full Member Prof. Hasan Mandal, who has been serving as the President of TÜBİTAK, has been appointed as the Rector of Istanbul Technical University (ITU).



New Book by TÜBA Member Prof. Kavzoğlu

The expanded 3rd edition of "Classification Methods for Remotely Sensed Data", which is among the best-selling books in its field, prepared by Prof. Taşkın Kavzoğlu, TÜBA Associate Member and Gebze Technical University Faculty Member, has been published.



The latest version of the work, which was first introduced to the readers by Paul M. Mather and Brandt Tso in 2001,

was renewed and updated by Prof. Kavzoğlu and shared with the public.

TÜBA Young Academy Member Prof. Candan Elected to COST Working Group



Prof. Zeki Candan, TÜBA Young Academy Member, Founder of Biomaterials and Nanotechnology Research Group | Bio-NanoTeam and Lecturer at Istanbul University Department of Forest Industrial Engineering, has been elected to the European Union COST Action CA21155 Working Group.

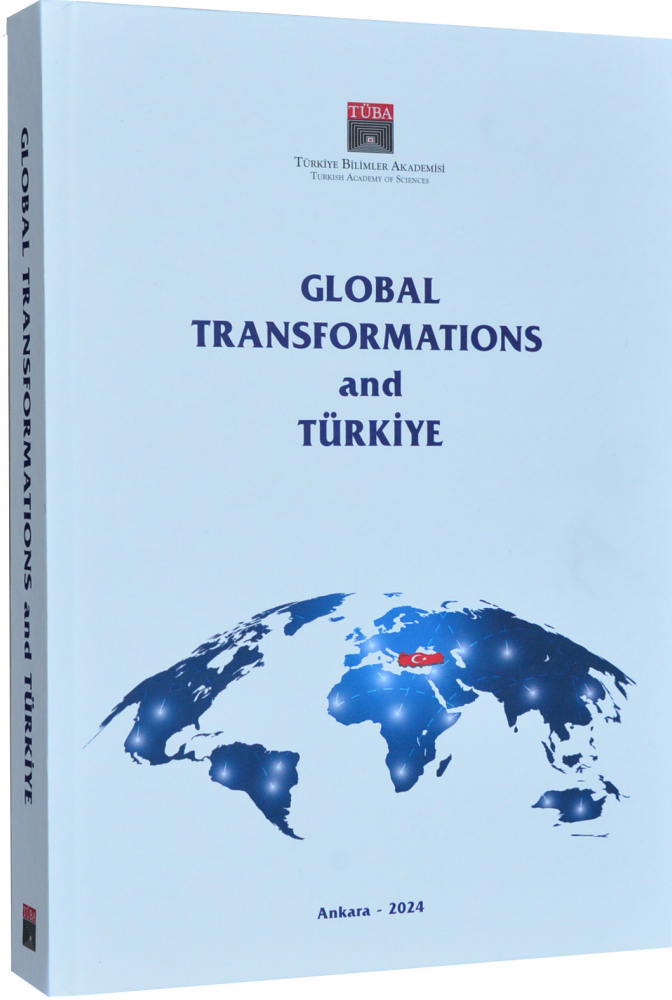
HISTRATE, which brings together many academic and industrial experts working on composite materials in different countries of Europe, contributes to the discovery, development and design of ultra-high performance, durable, safe, sustainable and new advanced composites.

TÜBA Young Academy Member Prof. Topaktaş receives the Order of Merit for Distinguished Service from Poland



Prof. Hacer Topaktaş Üstüner, TÜBA Young Academy Member and Head of the Department of Slavic Languages and Literatures and Head of the Department of Polish Language and Literature at Istanbul University (IU) Faculty of Letters, was awarded the Order of Merit for Distinguished Service by the Republic of Poland.

Prof. Üstüner, winner of the TÜBA-GEBİP and TÜBA-TESEP Awards, was awarded the Order of Merit for Distinguished Service for her scientific studies and contributions to the cultural relations between Türkiye and Poland.



Türkiye in Global Transformations

Following the editorial work carried out on the refereed articles presented at the conference organized by the International Relations Working Group in Istanbul and attended by more than 60 scientists from 20 countries, TÜBA published "Global Transformations and Türkiye", which bears the same name as the conference.

The work edited by Prof. Ahmet Nuri Yurdusev, a TÜBA Full Member and the Coordinator of the TÜBA International Relations Working Group, along with Asst. Prof. Mürsel Doğrul, a faculty member at the National Defense University, includes contributions from academics and experts from America, Asia, Europe, and Africa on various global challenges such as international relations, economic transformations, migration, and technological advancements. This study, divided into thematic sections addressing significant global issues such as the international order, the importance of middle powers, and Türkiye's strategic responses to these global changes, consists of six main sections and 36 subsections: "World Dis/orders in the Age of Global Transformations", "Great Powers and Middle Powers in a Changing World", "Türkiye on the Cusp of Persistent Challenges and Global Transformations", "Challenges of Migration and New Channels of Diplomacy", "New Media, the Challenge of AI/Cyberspace and Non-state Actors", and "Challenges in Economy, Business, and Finance."



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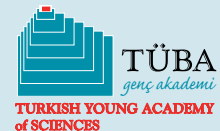
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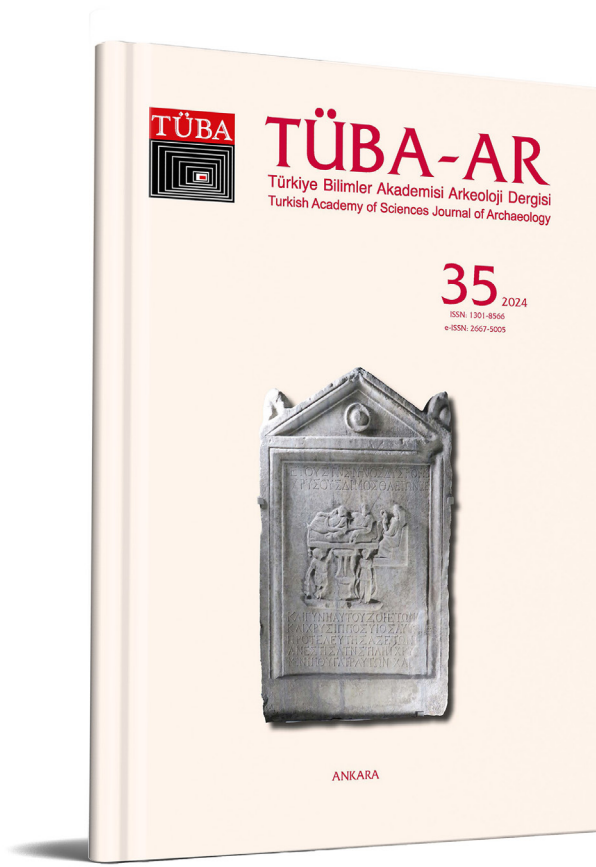
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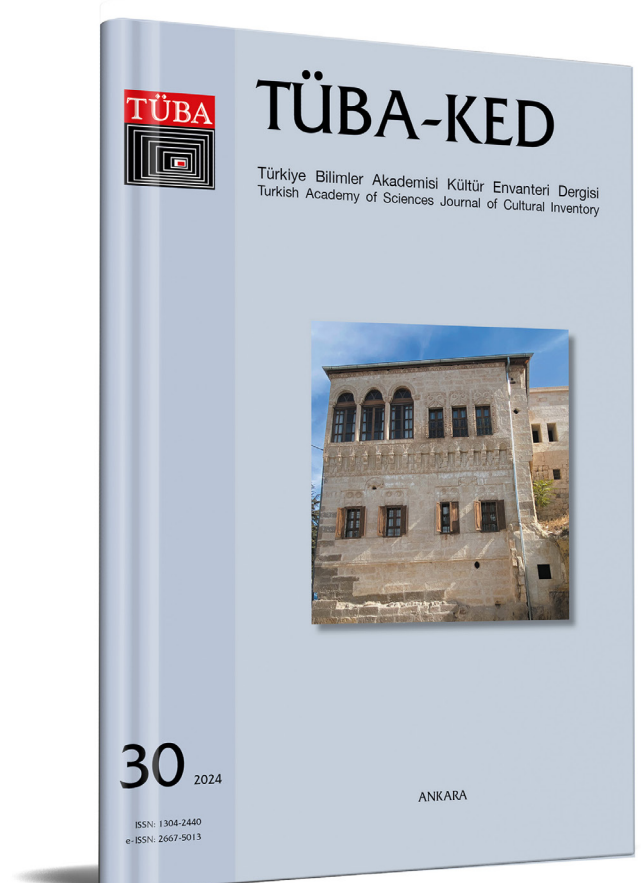


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It is published twice a year, in June and December. You can submit articles to the journal, which is open to Turkish and English articles throughout the year, via Dergipark. <https://dergipark.org.tr/tr/pub/tubaar>

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