Hydrogen Technologies Association

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MESSAGE FROM THE PRESIDENT



Dear Readers

The process we are in is at an extremely critical stage. In addition to the beginning of the hydrogen era and the acceleration of transformation for both our country and other countries of the world, the introduction of carbon taxes creates the need to draw a new road map by taking climate change into consideration. At this point, associations, especially organisations such as the Hydrogen Technologies Association, play a critical role.

By undertaking this critical task in our country, we aim to contribute to the development of our country at individual and institutional level and to support the transition to the hydrogen age. These contributions are generally in the form of training, activities, publications, consultancy services and individual contributions. In addition to these, we also take important steps on how to establish and maintain an ecosystem by organising conferences and workshops in cooperation with public institutions and universities.

As an association and with the institutional structures we are affiliated with, we are trying to increase Turkey's success in this transformation. In our quarterly bulletin, we share the activities of the association, short reports covering important events in Turkey and abroad, information sharing, and important projects and transformations in our country. In addition, we also include various laboratory studies and studies of public institutions in our bulletin.

We want to introduce the companies in the sector, highlight the industrial sector and especially emphasise our corporate members and highlight their contributions in this process. From renewable energy to human resources, our aim is to start a successful hydrogen age process by acting with a common motivation for the hydrogen age.

This transformation is a historical opportunity for our country. We must come together to successfully complete this story and embrace this success. This will be the success story of both our country and hydrogen.

Love and respect to all of you.

LETTER FROM EDITOR



Hydrogen Technologies Association E-Bulletin has been published on our website every six months since September 2015. We included news about hydrogen in Turkey and worldwide, informative articles from you, and introducing our members and member institutions in the Bulletin. Thank you for your contributions. Now is the time to make some innovations. The newsletter will be published every three months starting in 2024. By publication rules, it now has an ISBN. We are waiting for your suggestions and contributions to new developments. Letters to the editor can be a step in this regard. We want to increase our young readers and publish their news and articles. Please get in touch with us.

Greetings and regards

İnci Eroğlu







8TH INTERNATIONAL HYDROGEN TECHNOLOGIES CONGRESS IHTEC2024 MEETS AT DİCLE UNIVERSITY IN DIYARBAKIR

Distinguished Academicians, Researchers, Industrialists,

The 8th International Hydrogen Technologies Congress (IHTEC-2024) was successfully held on 12-15 May 2024 at Diyarbakır Dicle University with more than 200 scientists from Turkey and the world and public stakeholders, especially TENMAK. I want to thank the Rector of Dicle University, Prof. Dr. Mehmet Karakoç, who made this scientific activity successful with his support in both the planning and organisation stages, and the President of the Congress, Assoc. Prof. Dr. Heybet Kılıç, Vice President Dr. Cem Haydaroğlu, Congress Technical Chairman Dr. Ahmet Yardımeden, Dr. Mehmet Emin Asker and Dr. Yahya Akıl for their valuable contributions during the 8th International Hydrogen Technologies Congress (IHTEC-2024).

I would like to thank our esteemed Corporate Members for their significant contributions and support. Emre Ata, Manager of Hydrogen and Fuel Cell R&D Centre of ASPİLSAN Energy, Aziz KILIÇ, Co-Founder of BCS ENERJİ MÜHENDİSLİK, Dr. Yusuf Can Uz, CEO of Filament Technology Engineering Consultancy Industry and Trade Limited Company, Ali Rıza Arslan, General Manager of Hydrogenix Hydrogen and Energy Storage Technologies Inc., Huseyin Devrim, General Manager of TEKSİS Advanced Technologies and Şehmus Altan, Business Development Manager of ZORLU ENERJİ, your contributions have been instrumental in the success of the IHTEC-2024 event.

National Hydrogen Association
Chairman of the Board of Directors
Prof. Dr. İbrahim Dinçer

12TH GLOBAL WARMING GLOBAL CONFERENCE GCGW-2024 WAS HELD IN HARRAN UNIVERSITY IN ŞANLIURFA







The 12th Global Conference on Global Warming (GCGW-2024) was successfully held at Şanlıurfa Harran University on 16-19 May 2024. GCGW-2024 has been successfully concluded as a multidisciplinary, international conference covering various aspects of global warming, its origins, impacts, and potential solutions.

https://gcgw2024.harran.edu.tr/

YENİ KURUMSAL ÜYELERİMİZ



Naturel Enerji, which started its activities in 2009 with the understanding of "providing high-quality solutions" in the solar energy sector in Turkey, with its specialized management team and personnel, is one of Turkey's leading solar investors and EPC companies.

Naturel Enerji domestically owns 118.03 MWp capacity power plants, and it also took over the production side. Within the scope of its EPC activities, it has realized the project design and turnkey institutions of many Solar Power Plants in various parts of Turkey and has gained the trust of its investors.

https://www.naturelenerji.com.tr/

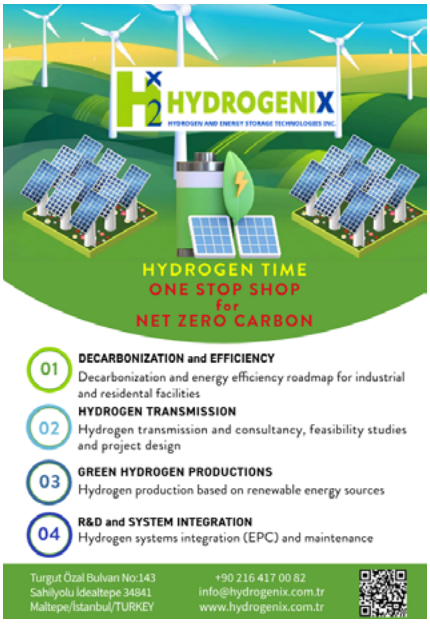


Lentatek offers a wide range of products and services, from design and development to production, in all areas requiring critical technology, such as Manned and Autonomous Systems, Hydrogen and Fuel Cell Technologies, Space Technologies, Critical Facility, and Border Security Technologies, and Digital Health Technologies.

With software, hardware, testing and verification, and system integration competencies, Lenatek designs and develops artificial intelligence, cyber security, and big data-based solutions at world standards at its Technology Center of Excellence. As Turkey's leading UAV platform manufacturer, it shapes the future with unmanned systems and unique systems.

It has carried out many R&D studies in the field of Hydrogen and Fuel Cell Technologies and implemented an award-winning model for advanced technology studies in university-industry cooperation.

https://lentatek.com/tr



Hydrogenix Company develops turnkey projects that produce high-purity green hydrogen by electrolysis of water using renewable energy sources. The hydrogen obtained in this way is used in fuel cell vehicles and industry, so investors can save energy while reducing their carbon footprint. In addition to offering an environmentally friendly and sustainable business model, it also offers sustainable, safe, high-quality, and economical green hydrogen solutions that best suit the needs.

https://www.hydrogenix.com.tr/

From Research to Reality: Advancing Hydrogen Technologies, Interview with Professor Ibrahim Dincer

Click here to watch



WIN EURASIA brings together the first and most important showcase of hydrogen energy in Turkey with the industry.

WIN EURASIA, the leading fair of industrial transformation, brings together the rising value of the sector, Hydrogen energy, with the sector in its 30th year. It opened its doors on 5-8 June 2024 at Istanbul Expo Centre (IFM), Yeşilköy.

Why Hydrogen Energy?

In order to prevent environmental pollution caused by energy production and consumption based on fossil fuels, we discuss the production and applicability of more sustainable and clean Hydrogen energy in the Hydrogen Special Area at WIN EURASIA 2024.

Heavy industry is one of the main areas of use of hydrogen energy. The development of technology and infrastructure for the production, storage, transport and utilisation of Hydrogen Energy brings many new business areas and projects. The production lines of industries with high carbon emissions have started to adapt their infrastructures to Hydrogen technology.

What awaits you in the special field of hydrogen?

- The opportunity to be on the most important stage of renewable energy technology
- The latest solutions from companies playing a role in industrial transformation
- Opportunity to directly experience new products
- Opportunity to discover compatible solutions and services for hydrogen technology before anyone else
- New investment opportunities in Turkey and much more
- The opportunity to listen to all your curiosities about hydrogen energy from the leading names of the sector with seminars and panels

New Centre of Future Energy Hydrogen Special Area Hosted the Industry at WIN EURASIA Hall 2.

On 05 JUNE 2024, Mr. İbrahim Dinçer, Chairman of the Board of Directors of the Hydrogen Technologies Association, gave the opening speech on Sector Development; Challenges, Opportunities and Future Directions. Prof. Dr. İbrahim Dinçer shared the details.

The event was closed with the Hydrogen Technologies Association Special Session.

Moderator: Prof. Dr. Adnan Midilli, Istanbul Technical University Energy Institute, Department of Mechanical Engineering

Prof. Dr Can Erkey, Koç University

İbrahim Pamuk, Lentatek, Hydrogen and Fuel Cells Technologies Coordinator

Prof. Dr Selmiye Alkan Gürsel, Sabancı University

Dr İpek Harmanlı, TÜPRAŞ, R&D Clean Hydrogen Team Product Owner















NATIONAL HYDROGEN ASSOCIATION 2024 AWARDS

The National Hydrogen Association 2024 Awards met with their owners at the IHTEC-2024 conference, which was held at Diyarbakır Dicle University between 12 and 15 May.

NEJAT VEZİROĞLU SPECIAL AWARD

PROF. DR. SULEYMAN I. ALLAKHVERDİEV

Controlled Photobiosynthesis Laboratory, K.A. Timiryazev Institute of Plant Physiology, Russian Academy of Sciences, Moscow"



Dr. Suleyman Allakhverdiev is a globally recognized expert in the field of physicochemical and experimental plant biology. His scientific interests are centered around natural and artificial photosynthesis, hydrogen energy based on photosynthesis, mechanisms of solar energy transformation, the structure and functions of reaction centers, and the water-oxidizing complex of photosystem II (PS II).

After graduating from the Physics Department of Azerbaijan State University in 1973, Allakhverdiev earned his Ph.D. in biophysics from the Institute of Biophysics, USSR Academy of Sciences (Puschino), in 1984. His pioneering dissertation, under the guidance of Academician Prof. A.A. Krasnovsky and Prof. V.V. Klimov, was devoted to the «Photoreduction of pheophytin in PS II reaction centers of higher plants and algae». In 2002, he earned his Doctor of Biological Sciences degree, specializing in plant physiology and biochemistry, from the Timiryazev Institute of Plant Physiology (Moscow).

He has made a significant contribution to the study of fundamental photosynthesis processes and the investigation of mechanisms for the photocatalytic conversion of solar energy in plants. Dr. Allakhverdiev S.I. has researched primary processes underlying the functioning of the electron transport chain of PS II, first discovered and justified the participation of pheophytin in electron transfer in the reaction center of PS II, and proposed energetic and kinetic electron transfer schemes during photosynthesis.

Furthermore, he identified that the donor cite of PS II (oxygen-evolving catalytic center) contains four manganese atoms. It has been shown that after the complete removal of endogenous Mn from the water-oxidizing complex of PS II, electron transport and the function of photosynthetic oxygen evolution can be restored by adding four Mn2+ ions per reaction center and subsequent photoactivation of the system. PS II was reconstructed using synthetic two- and three-core Mn-organic complexes based on tripod ligands that efficiently oxidize water to form hydrogen peroxide.

Dr. Allakhverdiev has also studied the molecular mechanisms of plant photosynthetic apparatus adaptation to adverse environmental conditions using physicochemical biology methods, including DNA microarrays. The results of his research have become part of global biological science and are included in all textbooks on photosynthesis.

The cycle of his works, «Fundamentals of creating photosynthetic artificial systems for the development of alternative energy», is dedicated to research in the field of photosynthesis, plant physiology, biochemistry, and molecular biology, as well as the search for ways to create new highly efficient nanobiomolecular devices mimicking natural photosynthesis to obtain the most promising type of fuel and molecular hydrogen using solar energy. He has demonstrated light-induced hydrogen release during water decomposition using artificial systems.

Over the past 15 years, Dr. Allakhverdiev has been developing a new scientific direction in the field of nanobiotechnology – creating artificial photosynthesis systems using protein structures to produce molecular hydrogen as an alternative energy source. He has synthesized and characterized over 65 artificial complexes, mimicking the operation of PS II and capable of releasing molecular oxygen from water.

His laboratory has created and operates prototypes of artificial systems based on components of natural photosynthesis that convert solar energy into electricity and molecular hydrogen. In recent years, Dr. Allakhverdiev has been developing methodological and scientific foundations for obtaining liquid and gaseous biofuels based on valuable strains of microalgae and cyanobacteria producing hydrogen (bio-H2). Hydrogen evolution by various subchloroplast membranes (BBY particle type) from higher plants deprived of WOC in the absence of exogenous hydrogenase under anaerobic conditions was studied by gas chromatography under illumination.

It was shown that PSII devoid of WOC generate molecular hydrogen in the presence of an exogenous donor TMPD (N,N,N,N-tetramethyl-p-phenylenediamine) at the expense of solar radiation energy. Data on the suppression of hydrogen photoproduction by known PSII inhibitors (dinoseb and atrazine) prove that hydrogen photoproduction is sensitized by PSII. A high-efficiency biohybrid system was designed to produce molecular hydrogen using light energy based on the cyanobacterial photosystem I (PSI) modified by replacing the secondary electron acceptor (vitamin K) in PSI with platinized naphthoquinone stabilized Pt nanoparticles (PtNPs). Irradiating the system with red light (680 nm) and using sodium L(+)-ascorbate as the sacrificial electron donor generated H2, which was detected by gas chromatography. Conditions for a significant increase in the efficiency of hydrogen extraction were found.

Prof. Suleyman Allakhverdiev is also interested in studying the adaptation of the plant photosynthetic apparatus to environmental stress conditions and ways to increase the yield of agricultural crops.

Dr. Allakhverdiev successfully combines scientific, pedagogical, organizational, and editorial activities. He is the author of over 450 scientific works, including articles, books, patents, etc. His work has been cited over 28,000 times, and his h-index is 82. Moreover, he is the organizer and coordinator of 12 international scientific conferences, «Photosynthesis and Hydrogen Energy Research for Sustainability».

Suleyman Allakhverdiev's achievements are internationally recognized. He has been named the most highly cited Russian researcher in Biology by Thomson Reuters (2016), awarded the Scopus Award Russia for Life Sciences (2018), and included in the top 1% of the most influential scientists globally (2018-2022). He received the K.A. Timiryazev prize (2019), the Global Energy award for Non-traditional energy (2021), and the Gold Medal of Al-Farabi Kazakh National University (2022). He holds the title of Honored Scientist of the Russian Federation (2022), Corresponding member of the Russian Academy of Sciences (2022), and is listed among the top 2% of the world's the most highly cited scientists by the Stanford List (2020-2023). According to International research platform in 2023 and 2024, he ranked first in Plant Science in Russia (see: Research.com). Recently, he was awarded the medal «300 Years of the Russian Academy of Sciences» (2024).

SERVICE AWARD

PROF. DR. ZEYNEP İLSEN ÖNSAN

Boğaziçi Unıversıty Department Of Chemıcal Engıneerıng



Prof. Dr. Zeynep İlsen Önsan graduated from Robert College, Department of Chemical Engineering in 1968. She received her MS and PhD degrees from Imperial College, University of London, in 1972. She started her academic career as an Assistant Professor at Boğaziçi University Department of Chemical Engineering in 1972. She continued her studies as an associate professor in 1980 and as a professor in 1988. She retired in 2013 and continues her master's and doctoral-level courses.

She served administrative duties at Boğaziçi University as Vice Rector for Research between 2000-

NATIONAL HYDROGEN ASSOCIATION 2024 AWARDS

2004, Head of the Department of Chemical Engineering between 1992-2000, and Deputy Dean of the Faculty of Engineering between 1988-1994. She served on the Academic Research Fund Administrative Committee between 1986 and 2013 to prepare, monitor, and realize various projects to increase the research capability of Boğaziçi University.

Prof. Dr. Zeynep İlsen Önsan has researched catalytic reactor engineering to develop catalysts and technologies to produce clean hydrogen at a level connected to fuel cells through hydrocarbons' steam/autocatalytic/oxidation reforming processes. She has 48 articles in international refereed journals and ten publications in other journals and books. She has 76 papers presented at international meetings and 37 papers presented at national congresses. She attended 45 international conferences and represented our country. She is the editor of the book "Multiphase Catalytic Reactors: Theory, Design, Manufacturing, and Applications", published in 2016, written with Ahmet Kerim Avcı. She is the author of the chapter titled "Catalysts" in the book "Comprehensive Energy Systems," published in 2018, edited by İbrahim Dinçer. She wrote Chapter 14, titled "Reactor Design for Fuel Processing," of the book "Fuel Cells: Technologies for Fuel Processing," published by Elsevier Science in 2011.

Prof. Dr. Zeynep İlsen Önsan's other research areas are fermentation bioreactions and biosystem engineering with recombinant cells. She has also published extensively in this field.

Some of her research topics on hydrogen, mainly published in the last 20 years, are as follows:

- *On-board hydrogen production for fuel cell-powered vehicles uses methanol and propane.*
- *Onboard fuel conversion for hydrogen fuel cell vehicles.*
- *Quantitative study of catalytic natural gas conversion for hydrogen fuel cell applications.*
- *Hydrogen production by steam reforming of n-butane on supported Ni and Pt-Ni catalysts.*
- *Developing catalytic processes for the production of clean hydrogen from hydrocarbons.*
- *Ethanol steam reforming for hydrogen production via bimetallic Pt-Ni/Al2O3.*
- *Hydrogen production via auto thermal reforming of LPG for PEM fuel cell applications*

She has conducted research, given lectures, and trained students on topics such as the development of hydrogen technologies, the development of catalysts for clean hydrogen production, hydrocarbon steam reforming, and onboard hydrogen production for fuel cell-powered vehicles. He is the thesis advisor of 69 master's and nine doctoral students.

Prof. Dr. Zeynep İlsen Önsan has made a significant contribution to HYDROGEN TECHNOLOGY WITH THE DEVELOPMENT OF a CATALYST AND REACTOR FOR HYDROGEN PRODUCTION PROCESSES FROM HYDROCARBONS IN TURKEY with the research, projects, and students she has trained at the Chemical Engineering Department of Boğaziçi University Faculty of Engineering for more than 50 years. She has initiated many studies in Turkey on developing hydrogen-producing systems built into fuel cell vehicles by reforming hydrocarbons. She has conducted joint studies with researchers and well-known scientists working on this subject in our country and abroad.

YOUNG RESEARCHER AWARD

Dr. AYKUT ÇAĞLAR

Bartın University



Dr. Aykut CAGLAR is a Postdoctoral Researcher at the Central Research Laboratory of Bartın University. After completing his undergraduate education in the Department of Chemical Engineering at Yüzüncü Yıl University in 2012, he pursued his master's and doctoral studies at the same university under the supervision of Prof. Dr. Hilal DEMİR KIVRAK, focusing on "Graphene synthesis, characterization ve glucose oxidation of prepared by the CVD technique" and "Synthesis of CdM (S, Se, Te) bimetallic quantum point structures and photo-electrochemical glucose electrooxidation applications" respectively.

Throughout his career, Çağlar has researched the design, synthesis, and catalytic activities of nanocatalysts in electrooxidation processes for applications such as fuel cells, supercapacitors, and sensors. He was deemed with awards by the Chemists Association (2020) and the Hydrogen Technologies Association (2020) for these studies. Furthermore, he has numerous publications, book chapters, and presentations in national and international indexed journals. He is currently involved in the TUBITAK 2218-Domestic Postdoctoral Research Scholarship Program project titled "Design, Synthesis, and Applications of Ferrocene-Benzothiophene Structures for SARS-CoV-2 Immunosensors". He also serves as a researcher in the "Smart Prototype Development and Control Laboratory" project by Prof. Dr. Mehmet ZAHMAKIRAN at Bartın University (BARÜ).

Çağlar expresses his gratitude to the Hydrogen Technologies Association for being awarded the "Young Researcher Award" for the year 2024, which will serve as a great source of motivation for his future endeavors. He also extends his heartfelt thanks to his spouse, family, esteemed mentors, and Bartın University for their unwavering support.

STUDENT RESEARCHER AWARD

ŞULENUR ASAL

Ontarıo Tech Unıversıty, Clean Energy Research Lab., Gazı Unıversity, Energy Systems Engıneerıng



Şulenur Asal, the recipient of the Hydrogen Technologies Association Student Researcher Award, completed her undergraduate education in Energy Systems Engineering at Gazi University in 2018. From the first year of her undergraduate education, she actively participated in a student union to promote the field of energy systems engineering and to unite students under a common organization.

After her undergraduate education, Asal continued her master's degree in the same department while gaining private sector experience in the field of HVAC (heating, ventilation, and air conditioning). Aspiring to become a successful academician since her undergraduate years, Asal started working as a research assistant in the Energy Systems Engineering department at Gazi University in 2019. She completed her master's thesis under the supervision of Prof. Dr. Adem Acir, focusing on nuclear hydrogen production. In her thesis, she designed a fusion nuclear reactor and examined the hydrogen production potential of the integrated system using steam-methane reforming (SMR), the sulfur-iodine (S-I) thermochemical cycle, and high-temperature electrolysis (HTE) methods.

After completing her master's studies, Asal began her PhD in 2021, focusing on nuclear hydrogen production. She completed the first phase of her PhD at Gazi University and won the TUBITAK 2214-A International Doctoral Research Fellowship Program for Turkish Citizens scholarship. With this scholarship, she is working on the second phase of her PhD at the Clean Energy Research Laboratory at Ontario Tech University in Canada, under the supervision of Prof. Dr. Ibrahim Dincer, conducting both theoretical and experimental studies on hydrogen.

Throughout her academic career, Asal has worked on nuclear energy, hydrogen technologies, and nuclear hydrogen production. She has published numerous articles in international journals and presented papers at prestigious conferences. Additionally, she won the Ministry of National Education (MEB) of the Republic of Turkiye, YLSY scholarship to pursue a PhD in the field of hydrogen and fuel cells.

As an academic and PhD student, Şulenur Asal's vision in the field of hydrogen technologies is to become a pioneering researcher, advancing with determination.

NATIONAL HYDROGEN ASSOCIATION 2024 AWARDS

MURAT KISTI

Erciyes Unıversity Energy Systems Engıneerıng, Kayseri



Murat KISTI, who was awarded the 2024 Student Researcher Award by the Hydrogen Technologies Association, was born in Osmaniye in 1994 as the first child of an educator family. He completed his primary (2008) and secondary education (2012) in his hometown. Murat KISTI received his bachelor's degree from Erciyes University in the Department of Energy Systems Engineering in 2019. After his undergraduate education, he began his master's degree in the same department under the supervision of Assoc. Prof. Dr. Mehmet Fatih KAYA in 2020. Murat KISTI met hydrogen energy with the studies he carried out within Erciyes University H2FC Hydrogen Energy Research Group. After completing his master's course phase, he was included in the program in the field of "Energy Storage" under the title of "Human Resources Program with 2000 Doctorates in 100 Priority Fields (YÖK 100/2000 Doctoral Scholarship)", which was initiated by the Council of Higher Education with the motto "Qualified Knowledge Production and Qualified People", with an integrated doctorate. Thus, Murat KISTI began his PhD education in the Department of Energy Systems Engineering at Erciyes University in 2021. During his graduate education, he worked as a scholar in the TUBITAK 1001 project titled "Development of Innovative Anode Gas Diffusion Layers for PEM Electrolyzers" coded 120M234, led by Assoc. Prof. Mehmet Fatih KAYA. His doctoral thesis proposal was titled "Development of Innovative Metallic Gas Diffusion Electrodes for PEM Electrolyzers". In 2023, with his thesis proposal in the field of hydrogen, he was entitled to be a scholar in the TÜBİTAK 2211-C Domestic Priority Areas Doctoral Scholarship Program. In addition, thanks to his work in the field of hydrogen during his project studies, he received a performance scholarship for 3 consecutive terms within the scope of TÜBİTAK 2250 Graduate Scholarships Performance Program. In November 2023, he won the First Prize in the Student category at the "2nd R&D Project Market and University Promotion Days" event organized at Tokat Gaziosmanpaşa University. Murat KISTI is also a Research Assistant at Erciyes University Energy Systems Engineering Department of Heat Technics with the priority area of "Hydrogen and Fuel Cells", conducts studies on different subjects in the field of Hydrogen in addition to his thesis studies in Erciyes University H2FC Hydrogen Energy Research Group operating. As a result of these studies, the invention named "A System to Increase Hydrogen Production Using Pulse Voltage for Polymer Electrolyte Membrane (PEM) and Alkaline Electrolyzers", which aims to increase the performance of PEM Electrolyzers while extending the system life, was applied for a national patent on behalf of Erciyes University to the Turkish Patent Office and the national patent application was registered by the Turkish Patent Office in September 2023. Registration processes for international patents are ongoing for different countries. He has also contributed to the field of Hydrogen Energy with international papers, international book chapters and SCI indexed (Q1, Q2) articles in the field of hydrogen. As a result of these contributions, Murat KISTI was awarded the Student Researcher Award at the "Eighth International Hydrogen Technologies Congress" organized by the Hydrogen Technologies Association in May 2024 and held at Dicle University this year.

On behalf of the prize committee, I would like to congratulate the winners and wish them continued success in their research on hydrogen.

Prof. Dr. İbrahim Dinçer
President of Hydrogen Technologies Association

HYDROGEN WILL OPEN NEW DOORS IN EXPORTS

The 13th of the ISO Green Agenda Talks, initiated by the Istanbul Chamber of Industry (ISO) within the scope of its sustainability vision, was held with the title 'Turkey's Role in the Hydrogen Economy' in cooperation with the Turkish Energy, Nuclear and Mining Research Institute (TENMAK) affiliated to the Ministry of Energy and Natural Resources.

Hosted by Vehbi Canpolat, Member of the Board of Directors of the ISO, the event was opened by Prof. Dr. Uğur Çevik, Vice President of TENMAK, and Prof. Dr. İbrahim Dinçer, President of the Hydrogen Technologies Association, was the guest speaker. At the event, which was also attended by Rıdvan Mertöz, Member of the ISO Assembly and Chairman of the ISO Energy Management Assembly Working Group, a panel moderated by Journalist-Writer Ilgaz Gürsoy was held with Ragıp Kızıltaş, General Responsible of TENMAK Hydrogen Technologies, Prof. Dr. Adnan Midilli, Director of Istanbul Technical University (ITU) Energy Institute, and Prof. Dr. Uğur Çevik, Vice President of TENMAK.

More info



ICCI International Energy and Environment Fair and Conference

ICCI International Energy and Environment Fair and Conference brought together the energy sector on 24-26 April 2024 by Sectoral Fair Organization and Kojentürk Association with the support of the Ministry of Energy and Natural Resources and EMRA. 26 April 2024 'Hydrogen Ecosystem and Sectoral Transformation' was discussed with the participation of Prof. Dr. İbrahim Dinçer, Chairman of the Board of Directors of the Hydrogen Technologies Association, within the scope of ICCI Energy and Environment Conferences.

https://icci.com.tr/





A workshop titled 'New Energy Workshop 2024' was organised by Adıyaman University Faculty of Engineering.

Adiyaman University Vice Rectors Prof. Dr. Selcen Yüksel Perktaş, Prof. Dr. Özgür Özdemir, Secretary General Assoc. Prof. Dr. Mahmut Gürsoy, Advisor to the Rector Assoc. Prof. Dr. Mahmut Gürsoy, Advisor to the Rector Assoc. Assoc. Harun Tekin, Provincial Director of Industry and Technology Hacı Daştan, ATSO President Mehmet Torunoğlu, Adıyaman OIZ President Kadir Çelenk, University academic and administrative staff and students attended the workshop.

More info

The panel titled 'Sustainable Energy and Paradigms' was held.

The panel titled 'Sustainable Energy and Paradigms' was held. On 9 May 2024, Prof. Dr. Feridun Hamdullahpur, Honorary President of Canada Waterloo University, Prof. Dr. Yunus Çengel, retired Prof. Dr. Yunus Çengel from the University of Nevada, USA, Prof. Dr. İbrahim Dinçer, who has a chair at Canada Ontario Technical University and Yıldız Technical University, participated as speakers in the panel held at the Faculty of Arts and Sciences Conference Hall on Batı Raman Campus. Vice Rector of our University Prof. Dr. Ömer Faruk Ertuğrul, EKOM Coordinator Assoc. Prof. Dr. Mehmet Rıda Tür, academicians, and students attended the program. TPAO, TÜPRAŞ, and Dicle Electricity Distribution Company officials, who participated in the program as external stakeholders in energy studies, accompanied the program to follow the developments in the energy field.

More info

Power Union for Hydrogen and Cogeneration Technologies

Prof. Dr. Filiz Karaosmanoğlu

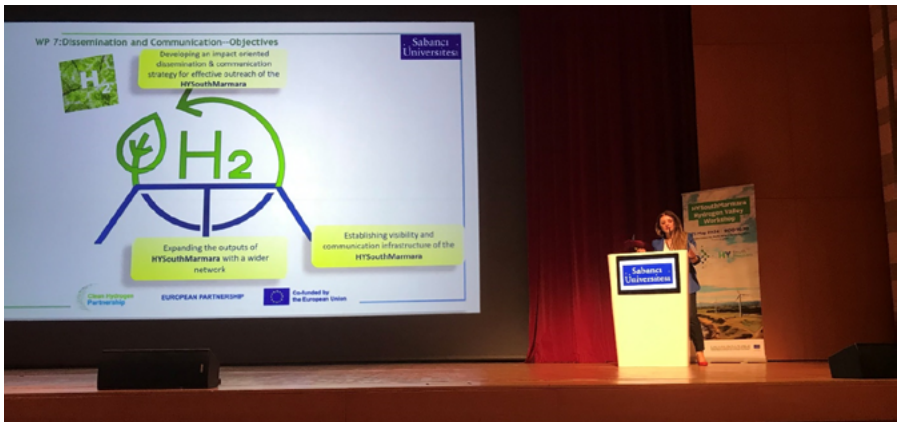


We need to follow the new knowledge and technology in energy. Energy will be everywhere at a cost to the planet. We will continue to see the life projections of climate change.

I am a Founding Board Member of the Hydrogen Technologies Association and Cogeneration Association of Turkey (KOJENTÜRK). The first Honorary Member signed a cooperation protocol on 14 February 2024. This cooperation will add strength to the green transformation path of our unique country, which will change with the 3D energy to stop the three problems of our planet. Thus, progress will be achieved in full compliance with the relevant national legislation, especially Turkey's National Energy Plan, Energy Efficiency 2030 Strategy and II. National Energy Efficiency Action Plan, Turkey Hydrogen Technologies Strategy and Roadmap. Our presidents, Prof. Dr. İbrahim Dinçer and Yavuz Aydın, are two ITU graduates. Our alums is our pride. At the signing ceremony of this cooperation, which I facilitated, I stood proudly next to our smiling senior graduates. How happy for me. How happy for us. How happy for our country.

More info

TÜRKİYE'S FIRST HYDROGEN VALLEY PROJECT



The HYSouthMarmara Hydrogen Valley Workshop was held at Sabancı University on May 29, 2024. The project was coordinated and implemented by the South Marmara Development Agency Mr. Ahmet Volkan Duman, who gave the opening talk. The workshop was organised by Prof. Dr. Selmiye Alkan Gürsel at Sabancı University. The Project consists of 15 stakeholders. The stakeholders' delegates presented their plans and programs during the workshop. Within the scope of the Project, green hydrogen will be produced by Enerjisa Üretim in Bandırma, distributed by Linde, and used by Kale Seramik A.Ş., Şişecam A.Ş., Hydrogen Peroksit A.Ş. and Eti Maden in the region. Moreover, TUBİTAK MAM is constructing an off-grid fuel cell power system using hydrogen from sodium borohydrate. The Turkish-German University presented preliminary feasibility results. Sabancı University and IICEC delegates analyzed the project's energy and climate contributions. Online speakers from The Netherlands, HEAVEEN Project, Germany, the Mediterranean countries, Italy, the Emilia Romana region, and Morocco demonstrated a similar HySouthMarmara model. Regarding the Southern Marmara Hydrogen Coasts, representatives of İÇDAŞ Çelik Sanayii, Tekfen Holding A.Ş., Akçansa, and RightShip companies made presentations on the subject. Four panels were held during the workshop. Prof. Dr. İnci Eroğlu was invited to present the National Hydrogen Association on one of the panels. Prof. Dr. Can Erkey presented their green hydrogen research at Koç University.

Hydrogen Guy" – New song released on Spotify and iTunes

"Click here to listen"

MISSION: HYDROGEN

HYDROGEN ONLINE WORKSHOP HELD IN 24 HOURS ON JUNE 5, 2024

The Hydrogen Online Workshop, organized by Dr. David Wenger (Wenger Engineering GmbH/ Mission Hydrogen GmbH), was held again this year with great interest, with hydrogen believers participating worldwide. Investments related to green hydrogen projects that came to the fore in this year's presentations are planned or awaiting approval. Difficulties in the financial support process and realized investments were discussed. In addition to invited speakers and panel presentations, many companies introduced their products with online exhibitions. Although this 24-hour workshop, attended by those interested in questions, answered them, it also raised new questions. Mission Hydrogen webinars, online workshops, and congresses, which have been going on for four years, are very useful.

More info

Please comment on LINKEDIN as well.

Also check out the Hydrogen Lab in Bremerhaven. It is the largest megawatt-scale electrolyzer and fuel cell test center worldwide. Fraunhofer IWES operates it, and Wenger Engineering built it

youtube.com/watch?v=dhezeBqjNiw

The following speakers were acknowledged: John Poljak (Keynumbers), Prof. Dr. Bruno G. Pollet (University of Quebec, Int. Association for Hydrogen Energy (IAHE)), Oliver Reimuth (GASCADE Gas Transport), Ralf Schaaf (First Ammonia LLC), Veronika Schelling (Burckhardt Compression AG), Sara Schiffer (HyLane GmbH), Jesse Schneider (ZEV Station), Sebastian-Justus Schmidt (Enapter), Dr. Art Shirley EVOLOH, Mahari Tjahjadi (Fortescue Hydrogen Systems) and last but not least Dr. David Wenger (Wenger Engineering GmbH/ Mission Hydrogen GmbH).