

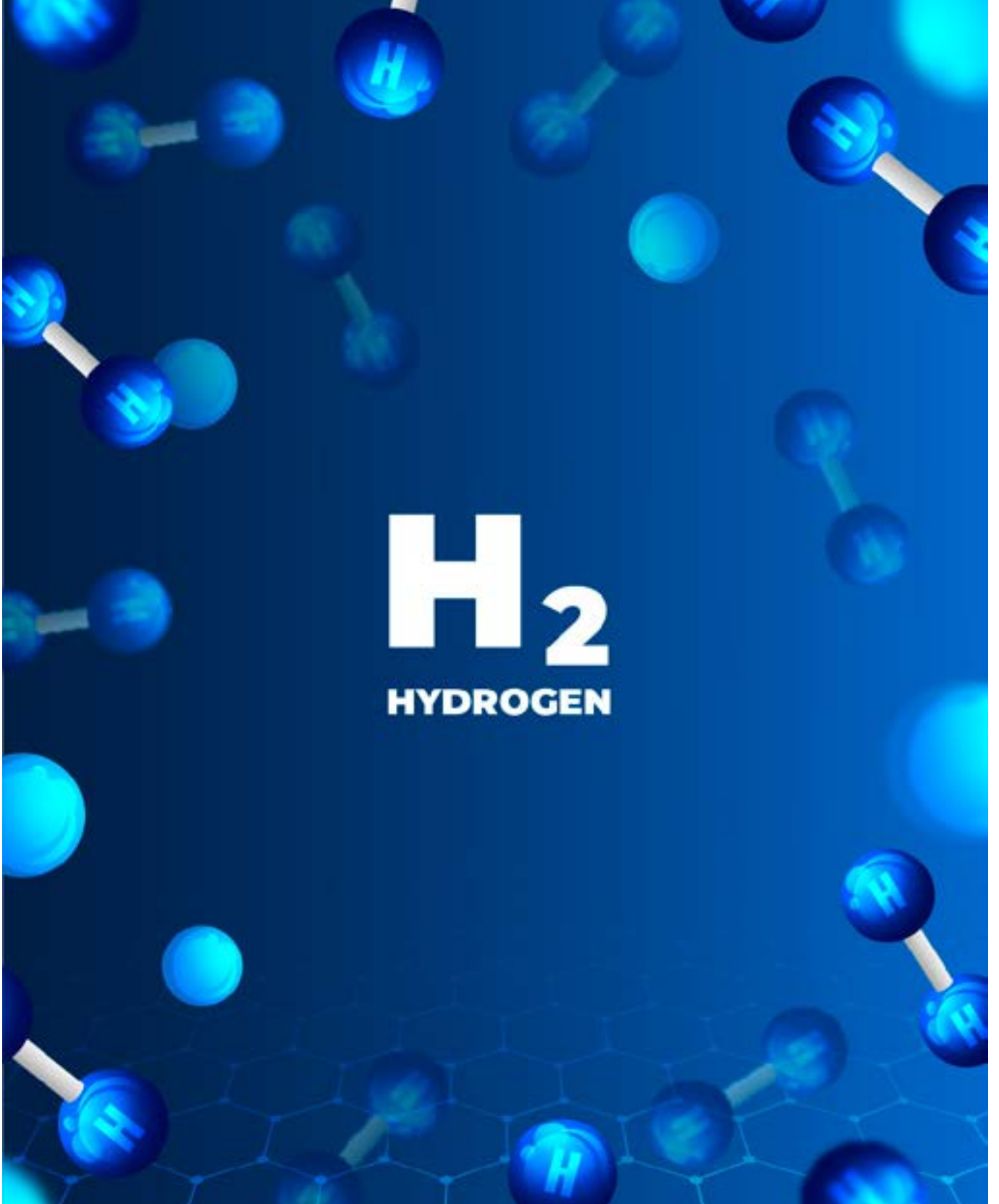
Hydrogen Technologies Association



BULLETIN

E-ISSN: 3023-686X

Volume: 18 Issue: 1 / March 2025



Hydrogen Technologies Association



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Concessionaire on behalf of Hydrogen Technologies Association

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Dear Readers

We want to introduce you to several significant developments and events in this month's newsletter.

First, I would like to bring to your attention the 9th International Hydrogen Technologies Congress (IHTEC-2025), which Dokuz Eylül University and the Hydrogen Technologies Association are organizing. This important event, scheduled to take place in Izmir from May 25 to 28, 2025, will serve as a platform for sharing the latest developments in the field of hydrogen energy and fostering new collaborations. Within the scope of the congress, a wide range of presentations and panels will be organized to cover production, storage, distribution, utilization, safety, and policy issues. With the participation of both academics and industry representatives, comprehensive discussions will be held on the future of hydrogen technologies.

We are also inviting applications for the IHTEC-2025 Awards. These awards aim to recognize the most successful work and innovative ideas in the field of hydrogen energy.

In other news, the WIN EURASIA Fair, held in Istanbul from May 28 to 31, 2025, is dedicating a special section to hydrogen energy and fuel cell technologies this year. The Hydrogen Technologies Association is among the supporters of this special section.

The Hydrogen Technologies Section will serve as an essential platform where the industry's leading companies and researchers come together. Visitors can closely examine the latest technological developments and applications in this field.

Among the products and solutions to be exhibited in the section will be

- Renewable energy-based hydrogen production systems
- Hydrogen storage and distribution technologies
- Fuel cell electricity and heat generation systems
- Hydrogen-based transportation solutions

MESSAGE FROM THE PRESIDENT



- Infrastructure and equipment required for hydrogen energy

We are delighted to participate in this unique area as the Hydrogen Technologies Association. We invite all industry stakeholders to WIN EURASIA 2025, especially to the Hydrogen Technologies Section. Don't miss the opportunity to establish new collaborations, explore the latest technologies, and stay up-to-date with current industry developments.

Please visit www.wineurasia.com for detailed information and registration.

As the Hydrogen Technologies Association, we place great importance on sustainable development and the transformation to clean energy. In this direction, we have prepared comprehensive reports with our team.

First, I would like to share our "Sustainable Development and Clean Energy" report, which addresses the critical role of hydrogen produced from renewable resources. In this report, we have examined the contributions of hydrogen in areas such as reducing greenhouse gas emissions, increasing energy security, and green industrial transformation. Analysis of hydrogen applications in various sectors and their anticipated economic impacts is also an essential part of the report.

We also published our report, "Ammonia Energy in the Hydrogen Ecosystem." In this report, we examined the opportunities offered by ammonia in terms of hydrogen transportation and storage, as well as its applications in various sectors. We also revealed the potential role of ammonia in the hydrogen economy.

These studies reflect the latest developments and trends in the sector, providing essential information for academics and industry professionals. I hope it inspires you all and contributes to strengthening the role of hydrogen technologies in sustainable development.

<https://www.hidrojentechnolojileri.org/category/raporlar/>

The 10th Istanbul Carbon Summit, organized by the Sustainable Production and Consumption Association (SÜT-D), is also remarkable. The summit, scheduled for April 14-15, 2025, will explore sustainable solutions for decarbonization with the support of the Hydrogen Technologies Association.

In our newsletter, we would also like to mention our corporate members who have recently joined our association:

H2 Green Energy: A company working on environmentally friendly, efficient, modular green ammonia production. Its modular facilities, powered by renewable energy sources, offer sustainable solutions to the chemical, agricultural, maritime, defense, and energy sectors.

Yupana Energy: A company specializing in the installation and integration of solar energy systems. It offers innovative and creative solutions in the field of photovoltaic systems in cooperation with leading companies in the sector.

ARMELSAN Energy: A high-tech company operating within the ARMELSAN Group, aiming to become a leader in the energy sector. It studies renewable energy, hydrogen energy, underground gas storage, and digitalization in the energy sector.

We hope that all these developments in our newsletter will contribute to the advancement of our industry. Enjoy your reading!

Prof. Dr. İbrahim Dinçer

Hydrogen Technologies Association

Chairman of the Board of Directors

LETTER FROM EDITOR

Exciting hydrogen days await us. As you will see from our bulletin, meetings are being held in our country and the world regarding the development and application of hydrogen technology.

We share this news with you on our website. We are waiting for your contributions to our bulletin.

I would like to inform you about two important meetings. The World Hydrogen Technologies Convention (WHTC 2025), an essential activity of the International Hydrogen Energy Association, will be held in Dublin, Ireland, from October 21 to 24, 2025. In this meeting, participants are expected to share their experiences, particularly regarding the development and cost of hydrogen production technology.

COST CA 21146 - Fundamentals and Applications of Purple Bacteria Biotechnology for Resource Recovery from Waste (PURPLEGAIN) expert committee meeting will be held on July 2-3, 2025, at METU

Ankara. This project on biological hydrogen production and biorefinery products has been ongoing for three years. Prof. Dr. Tuba Hande Ergüder Bayramoğlu and Assoc. Prof. Dr. Harun Koku organized the meeting. The METU Biohydrogen Group has been conducting research on hydrogen production using photosynthetic bacteria for over 30 years. Scientific contacts are a golden opportunity to take a step forward towards innovation. Meeting you at these events and learning your evaluations on this subject are some of the purposes of our Bulletin. I wish you good work.

Greetings and regards.

İnci Eroğlu



9. Uluslararası Hidrojen Teknolojileri Kongresi (IHTEC-2025)

We invite you to the 9th International Hydrogen Technologies Congress (IHTEC-2025), a leading multidisciplinary international event by Dokuz Eylül University and the Hydrogen Technologies Association. The congress will take place from May 25 to 28, 2025, in İzmir, Türkiye.

IHTEC-2025 will serve as a forum for the exchange of technical knowledge, the dissemination of high-quality research, and the presentation of new policies and scientific advancements in the field of hydrogen energy. The congress will cover a broad range of topics related to the hydrogen ecosystem, including production, storage, distribution, utilization, safety, and policy. We warmly welcome participation from academia and industry, and we hope that the conference will foster effective and fruitful discussions and collaborations among participants from various disciplines, institutions, and sectors worldwide.

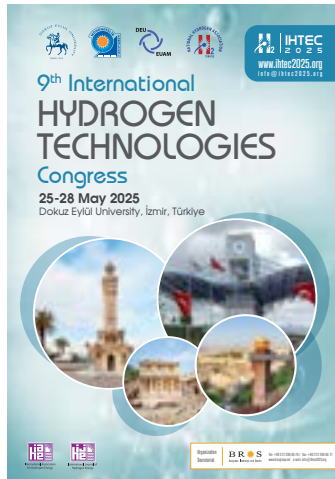
We look forward to welcoming you to IHTEC-2025 and sharing with you the unique Turkish hospitality and İzmir's stunning historical, cultural, and natural beauty.

<https://ihtec2025.org/>

Congress Chairs

Prof. Dr. C. Özgür Çolpan

Prof. Dr. Azize Ayol



Don't forget to apply to our Association for IHTEC2025 Awards.

<https://ihtec2025.org/awards/>



Nejat Veziröğlü Special Award

This award is created on behalf of Prof. Dr. Nejat Veziröğlü, who is an international leader in hydrogen energy, the father of hydrogen technologies, and the permanent honorary president of the Hydrogen Technologies Association. It is given to people who have proven themselves in the field of hydrogen energy and technologies both domestically and internationally and have made internationally recognized contributions.

Service Award of Hydrogen Technologies Association

This award is given to the people who have dedicated themselves to hydrogen energy and have served for at least 20 years in the development and application of this field, have contributed to the communal, social, technological, and economic development of the country in the field, have been a pioneer in the education and training of youth, have made institutional contributions and are active in industrial applications.

Technology Award

This award has been created for institutions that work effectively on hydrogen energy technologies and develop technologies. It is given to institutions that develop a product for the development of hydrogen technology, establish a pilot or industrial facility in the field of hydrogen energy and technologies, have patents in the field of hydrogen energy and technologies or support technology development.

Young Researcher Award

This award has been created for researchers, who are under the age of 35 (not more than 35 years old as of the date of the IHTEC-2025 conference, where the award will be given) and have at least a master's degree. It is given to people who have done successful studies on hydrogen energy technologies that are recognized at the national and international levels.

Student Researcher Award

This award is given to undergraduate, graduate, or doctoral students. Candidates are expected to be under the age of 30 as of the date of the IHTEC-2025 conference, where the award will be given. The candidates who will be nominated for this award or who will apply themselves, will be preferred for this award if they have developed an invention, a new application, or a unique method for hydrogen technologies.

The winners of these awards will be invited to the conference where they will attend the award ceremony. Conference registration fee and accommodation expenses will be covered by the association.

CONTACT

+90 533 726 72 55
hidrojenteknolojileri.org

More information and application:
www.hidrojenteknolojileri.org

Towards A Sustainable Future at WIN EURASIA Hydrogen and Fuel Cells Special Area

As the region's premier international Automation and Machine Technologies Trade Fair, WIN EURASIA will bring together the most influential procurement and purchasing professionals worldwide at the Istanbul Expo Center from **May 28 to 31, 2025**.

With a 30-year legacy, WIN EURASIA 2025 will showcase the future of technology and sustainability through the lens of innovation, bringing together all industry components under the motto: "Driven by Automation." The trade fair will drive industry transformation through dedicated areas where industrial innovation and sustainability converge, inspiring professionals with solutions that enhance energy efficiency and support environmental sustainability.

WIN EURASIA will connect energy solutions and products with the right buyers in the Hydrogen and Fuel Cells Special Area.

For the first time in Türkiye, the future of hydrogen was exhibited with a unique concept at the WIN EURASIA 2024, achieving great success. New business connections and networking meetings were made thanks to the atmosphere it provided. For a sustainable world, the Hydrogen & Fuel Cells Special Area for clean energy production and technology transformation will continue to take place at WIN EURASIA 2025, with the

same concept but broader content.

The Future of Renewable Energy Technologies Will Be Discussed

The Hydrogen & Fuel Cells Special Area will host panel sessions and seminars featuring expert keynote speakers who will bring the latest technologies and current issues to



the agenda.

In this unique area, national and international public institutions, civil society organizations, academicians, private sector representatives, and entrepreneurs will gather to share their insights on sustainable energy solutions and the industry's future.

Thanks to the Hydrogen and Fuel Cells Special Area at WIN EURASIA 2025, industry professionals can explore processes and projects in this field and showcase their solutions.



Driving a Billion-Dollar Business Volume for the Manufacturing Industry

As the leading industrial trade fair in the Eurasia Region, WIN EURASIA 2025 will offer exhibitors expanded market opportunities and a competitive edge by serving as a hub for innovation and strategic partnerships. Generating millions of dollars in business volume for the manufacturing industry each year, the trade fair will continue to drive Türkiye's industrial transformation with the latest advancements in automation. Celebrating its 30th anniversary in 2024 with over 750 exhibitors from 19 countries and 41,554 visitors from 90 countries, WIN EURASIA will unite key industry players again for its 31st edition on May 28-31, 2025, at the Istanbul Expo Center.

Report on Sustainable Development, Clean Energy, and Clean Hydrogen

Prof. Dr. İbrahim Dinçer, Chairman of the Board of Directors of the Hydrogen Technologies Association, has prepared a comprehensive report on sustainable development, clean energy, and clean hydrogen. This report addresses how hydrogen can play a role among clean energy sources in today's efforts to reduce the environmental impact of energy production and consumption.

Prof. Dinçer's study provides an in-depth analysis of the development and applicability of hydrogen technologies, providing essential insights to both the academic community and industry stakeholders. The report's content emphasizes the necessity of a clean energy transition and the potential of hydrogen in this process.

[Please click here for detailed information and to view the full report.](#)

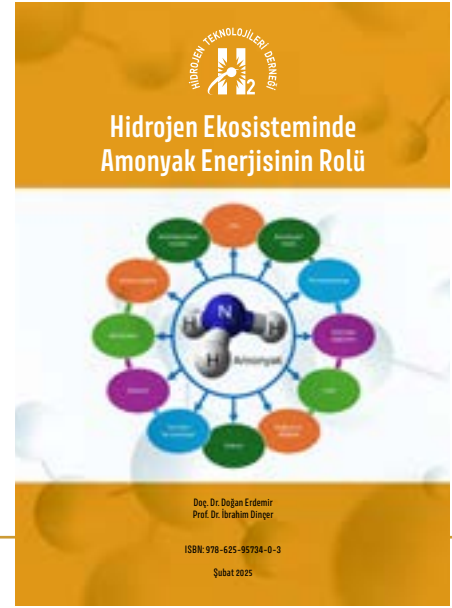


The Role of Ammonia Energy in the Hydrogen Ecosystem

Prof. Dr. İbrahim Dinçer and Assoc. Prof. Dr. Doğan Erdemir prepared the report titled The Role of Ammonia Energy in the Hydrogen Ecosystem. This report comprehensively addresses the importance and potential of ammonia energy for developing the hydrogen ecosystem.

Ammonia plays an important role in the transportation and storage of hydrogen and is a critical component in the clean energy transition. The report examines the advantages of ammonia energy, its uses, and future application opportunities. It also highlights the relationship between hydrogen and ammonia and their integration in energy systems.

Please click here for more information and to view the full report.



10th Istanbul Carbon Summit

Dear Members

Celebrating its tenth anniversary in September 2023, Sustainable Production and Consumption Association (SÜT-D) will organize the 10th Istanbul Carbon Summit on April 14-15, 2025 world-oriented, with high stakeholder participation. "Decarbonization Sustainable Solutions on the Road and the Power of Green Lime" summit, while finding the winners of the ongoing SÜT-D 2025 Low Carbon Hero Award, The SÜT-D 2025 Little Carbon Hero show, exhibition, and high-level to increase the carbon management capacity of our country with executive speeches, value will be created. The Association for Hydrogen Technologies is a non-governmental organization with high stakeholder participation and the support of the energy sector. We present the summit where the business world made a firm stance.

Information and Contact: www.karbonzirvesi.com; info@inppes.com

Best Regards

Meliha Taçgın

Project Coordinator



World Hydrogen Technologies Convention 2025 Dublin Ireland (21st-23rd October 2025)

The conference, attracting a diverse technical and geographic audience, will cover a range of subjects to provide a comprehensive understanding of four key areas: Economic, Environmental, Technological, and Legislative.

The conference will cover the "Total Cost of Ownership" (TCO) for hydrogen systems, including the costs associated with planning, development, ownership, and operation over the entire lifecycle. This includes research, initial investment, operating costs, maintenance costs, and any other expenses that may arise during the system's operation.

www.WHTC2025.com



COST CA 21146 - Fundamentals and applications of purple bacteria biotechnology for resource recovery from waste (PURLEGAIN) (2022-2026)

[Click here for more details](#)

The biotechnological development of purple phototrophic bacteria (PPB) focuses on resource recovery from waste sources, contributing to a circular bioeconomy. The technology is being scaled up. However, technological implementation faces several challenges, such as:

Knowledge transfer from pure to mixed cultures

- Obtaining fundamental knowledge of the nutrient uptake pathways
- Developing mechanistic models
- Steering cultures to selective and stable communities
- Defining the targeted waste streams
- Optimizing culture conditions based on light transfer
- Optimizing downstream processing to extract products

- Developing techno-economic, social, and environmental life cycle assessments.

A holistic and multidisciplinary approach is required to overcome these bottlenecks. The combined efforts of basic and applied scientists and technologists from the industrial sector enhance the competitiveness of this emerging technology in the EU, ultimately leading to its deployment and commercialization as a product.

PURLEGAIN aims to create a European network to share information, facilitating technology and knowledge transfer between the academic and industrial sectors related to PPB applications for resource recovery from organic waste sources. Resource recovery encompasses wastewater and organic waste, whether in open or closed environments and involves single or multi-stage processes. The network associates fundamental-focused and applied-research groups,

improving lab-scale technology optimization through mechanistic modeling. It facilitates technology transfer from applied research groups to industry, considerably improving process design.

PURLEGAIN also aims to create a database for techno-economic, social, and environmental impact studies, which facilitates the marketability of the PPB-based technologies and the products to be extracted. Some focused products are polyhydroxyalkanoates, single-cell proteins, biomass for energy, biomass as fertilizer, biohydrogen, carotenoids, terpenoids, organic acids, co-enzyme Q10, and 5-aminolevulinic acid.

Action keywords

Purple phototrophic bacteria - Resource recovery from waste - Bioreactor design and processing - Bioeconomy and Circular Economy - Development of novel bioproducts

Our association member, Hüseyin Turan Arat, from the Sinop University Faculty of Engineering and Architecture, Department of Mechanical Engineering, has started working as a Professor Doctor. We congratulate our member.

Our association member, Hüseyin Turan Arat, from the Sinop University Faculty of Engineering and Architecture, Department of Mechanical Engineering, has started working as a Professor Doctor. We congratulate our member.

Dr. Hüseyin Turan ARAT is a Full Professor in the Department of Mechanical Engineering at the University of Sinop. His primary research interests are hybrid and electric vehicles, hydrogen energy, simulation, and vehicle applications. Dr. ARAT holds a B.Sc., M.Sc., and Ph.D. degree in mechanical engineering, with a specialization in Automotive Engineering. He has authored one book, written four chapters, published more than 70 articles, and holds one U.S. TR patent. Recently, his notable awards include the 2019 Carl-Jochen Winter Award from the International Journal of Hydrogen Energy (IJHE) and the 2018-2019 Top Downloaded Paper in the International Journal of Energy Research (Wiley). He is also the chairman of the supervisory board of the National Hydrogen Technologies Association of Türkiye.





YTU Hydrogen Technologies Club

Yildiz Technical University (YTU) Hydrogen Technologies Club is a student club focusing on hydrogen technologies. Club, to promote the use of hydrogen as an energy source, to promote the

various activities to raise awareness and provide information to students on this subject organizes events.

On March 13, 2025, YTU Hydrogen Technologies Club titled "The Hydrogen Age and a Sustainable Future" The training event was completed with great interest! Prof. Dr. İbrahim Dinçer shared his valuable knowledge at this event, hydrogen technologies and steps towards a sustainable future discussed.



SOUTH MARMARA HYDROGEN ROADMAP OPENING WORKSHOP was successfully held online on March 26, 2025.

The event was successfully moderated by Prof. Dr. Tamer Yılmaz. The program started at 10:00 with opening speeches; Sefer Yılmaz and Cevat Üçüncüoğlu from RS Planning and Hüseyin Kerem Öner as the coordinator of the HYSouth Marmara Project as the Head of GMKA Energy and Industry Unit. Then, at 10:10, Prof. Dr. Ozan Erdinç presented the project. At 10:20 Prof. Dr. İbrahim Dinçer spoke on "The Hydrogen Age and the Importance of Hydrogen Regions", Hüseyin Devrim

on "Opportunities for Turkey in Hydrogen Energy Technologies" and Abdullah Buğrahan Karaveli on "The Role of Hydrogen in Long Term Energy Policies". The program continued with a brainstorming session starting at 10:50, where hydrogen trends, production, distribution, storage, training, human resources, standards and regulations in the world and in Turkey, as well as the situation, potential and opportunities in South Marmara were discussed.

GÜNEY MARMARA HİDROJEN YOL HARİTASI AÇILIŞ ÇALIŞTAYI

Tarih: 26 Mart 2025 (Çarşamba)
Saat: 10:00-12:00
Yer: Çevrimiçi Toplantı

TOPLANTI PROGRAMI

Moderatör: Prof. Dr. Tamer Yılmaz

10:00 Açılış Konuşmaları:

- Sefer Yılmaz/Çevre Üçüncüoğlu, RS Planlama
- Hüseyin Kerem Öner, GMKA Enerji ve Sanayi Birimi Başkanı, HYSouthMarmara Projesi Proje Koordinatörü

10:10 Proje Sunumu:

- Prof. Dr. Ozan Erdinç (Proje Koordinatörü, YTU)

10:20 Konuşmacılar:

- Prof. Dr. İbrahim Dinçer, "Hidrojen Çağı ve Hidrojen Bölgelerinin Önemi"
- Hüseyin Devrim, TEKSİS CEO, "Hidrojen Enerji Teknolojilerinde Türkiye için Fırsatlar"
- Abdullah Buğrahan Karaveli, TENMM Başkanı, "Uzun Dönemli Enerji Politikalarında Hidrojenin Rolü"

10:50 Beyin Fırtınası Oturumu:

- Dünyada ve Türkiye'de Hidrojen Trendleri Nelerdir?
- Üretim, Dağıtım, Depolama, Eğitim, İK, Standartlar ve Yöneticiler
- Güney Marmara'da Durum, Potansiyel ve Fırsatlar Nelerdir?

12:00 Kapanış

<https://www.ytu.edu.tr/medya/icerik/2025/03/26/hydrogen-ya-sayim-2025-03-26>

Co-funded by the European Union

NEW CORPORATE MEMBERS**H2 GREEN ENERJİ****H2 Green Enerji – Green Ammonia Solutions for a Sustainable Future****Eco-Friendly, Efficient and Modular Green Ammonia Production**

As H2 Green Enerji, which offers the energy solutions of the future today, we aim to provide sustainable solutions to the chemical, agriculture, maritime, and defense industries and energy sectors by developing modular green ammonia production facilities working with renewable energy sources in the perspective of the energy and geopolitical risks faced by the world and our country.

Why Green Ammonia?

Traditional ammonia production produces high carbon emissions due to its dependence on fossil fuels. **Green ammonia** is obtained by combining hydrogen produced from renewable energy sources with nitrogen, thereby reducing carbon emissions to zero. In this way, it offers an environmentally friendly alternative ranging from agricultural fertilizer production to hydrogen transportation, energy storage, and industrial use.

Flexibility and Efficiency with Modular Manufacturing

H2 Green Enerji offers fast installation, low investment costs, and scalable solutions with its green ammonia production facilities, featuring a modular structure and maximum efficiency at minimal cost. This alternative system provides a more sustainable approach to the classical Haber-Bosch method. In this way, we offer tailor-made solutions to our customers who require production capacity at various scales, enabling them to quickly achieve their carbon-neutral targets and initiate production at strategic points.

Our Technology & Advantages

- ☑ 100% Renewable Energy Use: Clean energy systems powered by solar, wind and hydroelectric sources
- ☑ Low Carbon Footprint: Environmentally friendly production process with zero-emission ammonia production
- ☑ Modular and Portable Solutions: Production facilities that can be scaled and adapted to different locations according to needs
- ☑ Low Operating Costs: Cost advantage due to high energy efficiency and optimized processes
- ☑ Reliable and Durable Systems: Long-lasting and efficient production facilities by industry standards

Shaping the Future

As H2 Green Enerji, we are working to accelerate the clean energy transition and minimize the industry's carbon footprint. By providing innovative, efficient, and environmentally friendly solutions for producing and using green ammonia, we contribute to global sustainability goals.

Meet us for a greener world!

Contact: h2greenenerji@hotmail.com

Our Website: www.h2greenenerji.com

**Ahmet Batmaz**

I established H2 Green Energy by combining my production and sales experience in the chemical industry with my passion for clean energy. I am an entrepreneur who aims to contribute to our country and humanity in the perspective of complete energy independence by providing sustainable energy solutions with hydrogen technologies and the first domestic production modular green ammonia production facilities in Türkiye.

NEW CORPORATE MEMBERS

YUPANA ENERGY



As Yupana Energy, we continuously improve our expertise in technology and engineering to ensure that solar energy systems touch your life. With our sectoral experience and growing team, we can provide solar energy systems in various places, from homes to industrial facilities. We realize the installation of solar energy systems.

We offer innovative and creative solutions by cooperating with the sector's leading companies in photovoltaic systems. Thanks to these strong partnerships, we deliver solar energy services to our valued customers with our professional team. Turkey's solar energy potential allows us to lead in the transition to clean energy. We continue our efforts to utilize this potential and expand the use of solar energy. By adopting sustainability and renewable energy awareness, we protect our future by using the sun's unlimited energy, one of the most efficient ways to turn to resources, in various areas such as houses, caravans, gardens, and factories.

As Yupana Energy, we are committed to always being with you in your solar energy system application, production, and storage demands with our expert staff, high-quality products and services, reliable business partners, and business processes that prioritize customer satisfaction. We strive to provide the most reliable and highest quality service to our customers who want to invest in future energy resources.

<https://yupanasolar.com.tr/>



NEW CORPORATE MEMBERS**ARMELSAN ENERGY**

ARMELSAN Defence Inc. is a high-tech company specializing in underwater acoustics and Remote Operated Vehicle (ROV) technologies for the defense industry. With its extensive experience and robust infrastructure, the ARMELSAN Group aims to become a leading company both nationally and internationally in the energy sector. ARMELSAN Enerji A.Ş. was established as a spin-off company within the ARMELSAN Group to achieve this goal. The company is built on ARMELSAN Savunma A.Ş.'s extensive Research and Development (R&D) experience and infrastructure gained from the projects and services it has carried out over many years.

ARMELSAN Enerji A.Ş. is a high-tech company that conducts focused research and development activities in the energy sector, guided by the technology development roadmap established within the framework of Turkey's Development Plans. The company operates under the guidance of a Science and Technology Board consisting of distinguished academics who are pioneers in their fields. Under the coordination of this board, ARMELSAN Enerji A.Ş. undertakes technology, system, project, and business development activities in collaboration with leading companies, universities, and academics in the sector.

ARMELSAN Enerji A.Ş. carries out its activities in the following areas to create a sustainable future for both our country and the global community:

- Renewable Energy Solutions
- Advanced Hydrogen Energy Solutions
- Safe and Efficient Solutions for Underground Gas Storage Technologies
- Safe Energy Transmission with Pipeline Maintenance and Inspection Technologies
- Digitalization in the Energy Sector

In these fields of activity, it offers process and system solutions in a cost-effective, long-lasting, efficient, tailor-made, and turnkey manner.

<https://armelsanenerji.com/>

TÜRKİYE'S HYDROGEN NEWS (MARCH 2025)

Turkey has produced its first domestic electrolyzer for green hydrogen production.

Turkey has developed electrolyzer technology, which is crucial for producing green hydrogen, utilizing its domestic resources. The proton exchange membrane (PEM) type electrolyzer, created by the TÜBİTAK Marmara Research Center (MAM) and capable of producing 99.9% pure hydrogen, has become Turkey's first high-capacity domestic product in hydrogen technologies.

[More Details](#)

Türkiye's clean energy capacity increases its chances of becoming a hub for green hydrogen production.

Adnan Ünal, General Manager of Industrial and Medical Gas Company Linde Gaz AŞ, stated that Türkiye has a strong chance of becoming a regional hub for green hydrogen production, leveraging its existing solar and wind energy potential. Ünal, in his assessment of the company's new year goals, stated that "hydrogen stands out among other resources as an alternative to fossil fuels, allowing on-site production."

[More Details](#)

Green Hydrogen Prices Will Remain High for Years

Politicians and business leaders see green hydrogen as the key fuel for a carbon-free future. Still, a new forecast from Bloomberg-NEF suggests that the cost of green hydrogen will remain very high for decades to come, contrary to previously published projections.

[More Details](#)

2025 Investment Program Released

The 2025 Investment Program, published by the Presidency's Strategy and Budget Office on January 15, 2025, allocates significant resources to the energy sector. There is

a 45.6% increase compared to the previous year, with a total of 110.2 billion TL in resources. Additionally, resources will be allocated for projects such as the Sakarya Natural Gas Field. However, there is no explicit statement in the program regarding investments related to hydrogen. This suggests that hydrogen projects could be integrated into broader energy initiatives in early 2025 without specific allocation details.

[More Details](#)

Clean Hydrogen Partnership 2025 Call Information Day

A significant development for Turkey is the launch of the Clean Hydrogen Partnership 2025 call for proposals on January 15, 2025, under the Horizon Europe Program. This call, with a budget of € 184.5 million, supports research and development throughout the hydrogen value chain, including renewable hydrogen production, storage, and end-user applications. The Clean Hydrogen Partnership call closing date is April 23, 2025.

[More Details](#)

Türkiye's Decarbonization Process Priority Application Areas and Policy Recommendations for Renewable Hydrogen Report Published

A report has been published that aims to contribute to the decarbonization of the sector, aligning with current market conditions. The report examines the priority application areas and policy recommendations for renewable hydrogen in Türkiye's decarbonization process. The report aims to evaluate the areas of use of renewable hydrogen in Türkiye and analyze the development and economic viability of hydrogen technology. Additionally, it seeks to prioritize the sectoral use of hydrogen in Türkiye and analyze the costs and benefits of the relevant transformation.

Authors: Hasan Aksoy, Rafet Yağız Çalışkan, Sena Serhadlıoğlu, Emir Çolak,

Contributors to the technology-related

sections: Sabancı University Faculty of Engineering and Natural Sciences (FENS) Vice Dean Selmiye Alkan Gürsel led by Sabancı University PhD students Ahmet Can Kıriloğlu and Büşra Çetiner.

[More Details](#)

The Future of Hydrogen is Being Discussed at MCA World 2025!

The Hydrogen Panel, which will take place within the scope of the MCA World 2025 Fair, will focus on the production, storage, transmission, and utilization processes of hydrogen, playing a critical role in energy transformation, and will address the most significant innovations in the sector. Experts in the field will assess hydrogen investments in Turkey and globally.

MCA World 2025 is organizing a special panel to thoroughly examine the subject of hydrogen, which is expected to bring about a significant transformation in the industry and energy sectors. The Hydrogen Panel, scheduled for Saturday, April 12, will bring together experts, academics, and investors with a stake in the industry to discuss the future of the hydrogen economy.

The panel will address critical issues, including the production, storage, integration into industry, and future applications of hydrogen. Expert speakers in the field will share innovative approaches and investment opportunities that will shape the sector.

SPEAKERS AND PRESENTATION TOPICS TO BE TAKEN IN THE PANEL

Doğukan ÜNAL (General Manager of IPEC Industrial Project Engineering): Critical infrastructures, storage facilities, port infrastructures, and strategic importance of hydrogen pipelines for the development of hydrogen economy. Projects are planned to be developed in line with Turkey's 2030, 2035, and 2053 targets, as well as global success stories.

Hüseyin Kerem ÖNER (Head of GMKA Hydrogen Valley Energy and Industry Unit): Green hydrogen production, domestic equipment development, and Sodium Borohydride technologies within the scope of the HYSouthMarmara Project. Production of hydrogen derivatives and the effects of this transformation on the industry.

TÜRKİYE'S HYDROGEN NEWS (MARCH 2025)

Prof. Dr. Selmiye ALKAN GÜRSEL (Faculty of Engineering and Natural Sciences, Sabancı University): Hydrogen production methods, electrolyzer and fuel cell technologies. Potential future usage areas of hydrogen.

Prof. Dr. Metin TANOĞLU (Academic Member of Mechanical Engineering, İYTE): Hydrogen storage technologies under high pressure, current applications, and production of storage tanks with fiber-reinforced

composite materials. Different tank types and manufacturing methods.

Alper ATALAY (Biga Hidrojen Chief Operating Officer): Efficient, standardized, and modular electrolyzer design for green hydrogen production. Challenges and Solution Suggestions for Hydrogen Investments in Turkey and the Industry.

Take your place in this critical panel that shapes the future of hydrogen! Join us to discover the hydrogen economy, innovative

projects, and investment opportunities at MCA World 2025.

Event Date: April 12, 2025

Event Venue: Istanbul Expo Center 3rd Hall MCA World Measurement - Control and Automation Systems 2025 Fair Panel Area

[Information and Registration](#)

[Link](#)

There's something better than hydrogen on the planet: White Hydrogen

The finding of white hydrogen, the natural survey of Earth's crust, causes a worldwide thrill. This reason would offer the world a cost-effective solution for the climate impact of generating energy from an incredibly well-renewable source. France and the US recently discovered new evidence that it has potential, setting the pace for a clean energy revolution.

[Read More](#)

Enough Hydrogen to Last 200 Years Found Underground, Say American Researchers

According to a recent study published in Science Advances, researchers from the US Geological Survey (USGS) have calculated that Earth's underground reserves contain nearly 6,000 billion metric tons of hydrogen. Remarkably, just a tiny fraction of this resource would be enough to meet global energy needs—if we can locate and extract it efficiently. (Read more by following the links below)

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