



## Message from the Chairman





As the chairman of the 23<sup>rd</sup> World Hydrogen Energy Conference (WHEC-2022), it is my great pleasure to cordially invite you to Istanbul to attend this prestigious conference. WHEC is a unique scientific event, as initiated by Prof. T. Nejat Veziroglu and his Colleagues back in 1974, and aims to bring all researchers, scientists, academicians and professionals working in the field of hydrogen energy systems; ranging from production to storage and end-use options, such as fuel cells for a common

goal to hydrogen civilization. This conference will provide both online and onsite platforms for contributions to the development and enhancement of hydrogen energy systems; as well as a place to interact with researchers from all around the world to gain a better understanding of the use of hydrogen energy systems for a sustainable future. Much like past WHECs, WHEC-2022 will not only provide an outlook on the current research activities, but also will help shape the future of hydrogen energy systems. Furthermore, Istanbul, as an ancient city that connects two continents of Asia and Europe, has always been strategically very important, and hosting such a conference in Istanbul will attract researchers from every part of the world to promote hydrogen energy systems and share their innovative ideas and future plans. Moreover, one has to keep in mind that Turkey is dedicated to increase the share of renewables in its energy supply and consider hydrogen energy systems as potential solutions. In conjunction with this, Turkey has expanded its research, innovation, and technology development activities to produce, store, and use hydrogen in an affordable, reliable, safe, clean, and sustainable manner. Given these activities as well as the financial investment and dedication to hydrogen energy systems in Turkey, Istanbul is undoubtedly the perfect host city for this event. Under the shelter of the prestigious International Association of Hydrogen Energy (IAHE) and the support of Turkish National Hydrogen Association, it is expected that WHEC-2022 will turn out to be a success story with the strongest online and onsite participation and highest global influence.

I look forward to welcoming you to Istanbul on June 26, 2022.

Prof. Dr. Ibrahim Dincer  
Chairman of WHEC-2022  
President, National Hydrogen Association



 [www.whecistanbul.org](http://www.whecistanbul.org)  
 [info@whecistanbul.org](mailto:info@whecistanbul.org)



# The hydrogen world is coming to Istanbul!

## Why Istanbul?

Istanbul is the largest city in Turkey and is also among the 15 largest urban areas in the world. It is located on the Bosphorus Strait and covers the entire area of the Golden Horn, a natural harbor. Istanbul extends from Europe into Asia, connecting the two continents and making it the world's only metropolis to expand over two continents. The city of Istanbul is geographically crucial because it has a long history that spans the rise and fall of the world's most famous empires.

Istanbul will bring researchers, academicians, industrial professionals, and all individuals interested in the field of hydrogen energy together with WHEC-2022. Due to its unique location, Istanbul is easily accessible from all around the world; mostly by non-stop direct flights. A fun, diverse, historic place that is also easy to reach is sure to enhance the participation to WHEC-2022; which will result in a fruitful conference with practical ideas and action plans.

## Why Turkey?

In addition to its geographical location between Europe, the Middle East, and Asia; Turkey also plays a significant role in the distribution of energy from the Middle East to Europe. Thus, Turkey is of great importance to the global energy market. The country's dedication to an increased share of renewables in its energy mix and development and deployment of hydrogen energy systems make Turkey a great host for WHEC-2022.

## Why WHEC?

The World Hydrogen Energy Conference is an excellent occasion for international and Turkish communities to work together to enhance the global activities in the field of hydrogen energy systems for a sustainable future. The dissemination of knowledge on hydrogen energy will foster interest in the new scientific and technological activities. The size and characteristics of the Turkish industry and its big markets offer excellent opportunities for global partnerships that can support the introduction of new technologies in commercial scale.

## Format

The conference will offer both onsite and online presentations and exhibitions.

## Important Dates

Extended abstract due : December 15, 2021

Notification of abstract acceptance : February 15, 2022

## Submissions

We invite authors to submit their extended abstracts in the field of hydrogen energy systems. The submissions will go through a peer review process. Some key topics are listed here as a guide for the authors. Please submit your extended abstract using the following link: [www.whecistanbul.org](http://www.whecistanbul.org)

## TOPICS

- Alkaline fuel cell components
- Conventional hydrogen technologies and applications
- National and international strategies / Associations / Assessments
- Desulphurization processes
- Electrocatalysts / Electrodes (Fuel cells and electrolyzers)
- Environmental aspects and impact of hydrogen energy technologies
- Exergoeconomics of hydrogen energy applications
- Fuel cell stacks
- Fuel cell systems modeling
- Green hydrogen
- Heat transfer aspects of hydrogen energy
- Historical aspects of hydrogen
- Hydrogen-based sustainability
- Hydrogen conversion technologies
- Hydrogen economy / Commercialization / Codes and standards
- Hydrogen in smart grids
- Hydrogen management
- Hydrogen production: Biohydrogen / Gasification
- Hydrogen production: Catalysts
- Hydrogen production: Electrolysis / Electrolyzers
- Hydrogen production: Fossil sources
- Hydrogen production: Solar hydrogen / Renewable hydrogen
- Hydrogen properties / Safety / Sensors
- Hydrogen storage: Chemical carriers / Hydrides
- Hydrogen storage: Gas / Liquefaction
- Hydrogen strategies, policies, and roadmaps
- Hydrogen systems modeling
- Hydrogen thermodynamics
- Hydrogen transportation
- Hydrogen tourism
- Hydrogen vehicles
- Infrastructure systems modeling
- Innovative hydrogen energy processes and technologies
- Life cycle aspects of hydrogen energy
- Micro-process technologies
- Molten carbonates fuel cells components
- Nuclear hydrogen
- Other fuel cell components
- Other applications of hydrogen as a fuel
- Other applications of fuel cells
- Payback of hydrogen-based systems
- PEM fuel cell components
- Pipelines / Hydrogen infrastructure / Distribution / Fueling stations
- Purification / Separation / Membranes
- Renewable hydrogen technologies and applications
- Sectoral hydrogen applications
- Solid oxide fuel cells components
- Stationary applications
- Sustainable hydrogen technologies
- Transportation and aerospace applications
- Waste-to-hydrogen energy

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