المدرسة الوطنية للعلوم التطبيقية - فاس +٤١٢٨ +٠١٠٢:0+ ١+٢٠٥٥٠١٤ +:٥١٤٥٤ Ecole Nationale des Sciences Appliquées de Fès



جامعة سيدي محمد بن عبد الله بضاس ۵۰۸ ا ۵۰۸ ا ۵۰۸۳ ۵۰۸ ۵۱ ۵۰۸۳۰۵ ۹۰ ۵۰۰۵۰ UNIVERSITÉ SIDI MOHAMED BEN ABDELLAH DE FES

THE FIRST EDITION GREEN HYDROGEN DAY

APRIL 12, 2025

GREEN

HYDROGEN





Pr. Amine ALLOUHI Energy Professor USMBA, Fez, Morocco <u>Session 1</u> Energy transition and power to X



Dr. Hamza EZ-ZAKI Hydrogen, CO2 and e-fuels Manager TRAPIL, Paris, France <u>Session 2</u> Hydrogen production, transport and storage



M. Abdelkrim BENMEHEL R&D Process and energy engineer AKKODIS/UPPA, Pau, France <u>Session 3</u> PEM Electrolyzer performance

under dynamique conditions



Pr. Zakaria CHALH Mechatronic Professor USMBA, Fez, Morocco <u>Moderator</u>

The Green Hydrogen Day 2025 is a key event dedicated to exploring the role of green hydrogen in the global energy transition. Hosted by the National School of Applied Sciences of Fez (ENSAF) in collaboration with leading experts and academics, this event will bring together researchers, industry professionals, and policymakers to discuss the latest advancements in green hydrogen production, technological challenges, and opportunities for sustainable development.

Oral and poster presentations are scheduled at the GHD'25. We invite authors to submit 2-page papers via the submission link below. The scopes of the GHD'25 are :

- Energy storage production, transport, and storage
- Power-to-X
- Decarbonizing industry
- Export and global trade



www.ghdevent2025.sciencesconf.org

| Green Hydrogen Day Planning | | | |
|------------------------------------|---|--|--|
| 8h30 – 9h | Participant Registration & Welcome | | |
| | Welcome guests.Distribution of badges, programs, and general event information. | | |
| 9h - 9h45 | Opening Ceremony | | |
| | Opening of the day with a speech by the leaders. Pr. Mustapha IJJAALI, President of Sidi Mohamed Ben Abdellah University Pr. Abderrahim LAHRACH, Director of the National School of Applied Sciences of Fez Pr. Abdelmjid SAKA, Deputy Director in Charge of Scientific Research and Cooperation. Pr. Hassane MOUSTABCHIR, Director of the Laboratory of Engineering, Systems, and Applications (LISA). Pr. Zakaria CHALH, Head of the Industrial Department at ENSA-Fez | | |
| 9h45 - 10h15 | Session 1 | | |
| | Energy transition and power to X Pr. Amine ALLOUHI, Energy Professor, USMBA, Fez, Morocco. | | |
| 10h15 - 11h45 | Coffee Break & Networking | | |
| 11h45 – 12h15 | Session 2 | | |
| | Hydrogen Production, Transport and Storage. Dr. Hamza EZ-ZAKI, Hydrogen, CO2 and e-fuels Manager, TRAPIL, Paris, France. | | |
| 12h15 - 12h45 | Session 3 | | |
| | PEM Electrolyzer performance under dynamic condition. M. Abdelkrim BENMEHELI, R&D process and energy engineer, AKKODIS/UPPA, Pau, France | | |
| 12h45 - 14h30 | Lunch & Networking | | |
| | Oral Presentations by Participants | | |
| | Session 1 (on site) | | |
| Session chairs | Prof. Zakaria CHALH Prof. Yassine CHAIBI Prof. Mohamed BENSLIMANE | | |
| 14h30 - 14h45 | Title: Green hydrogen production technologies Authors: Ayoub GHAILANE, Jamal MABROUKI, Khadija EL-MOUSTAQIM, Driss AZDEM, Mounir BOUTARBOUCH Younes ABROUKI | | |
| 14h45 – 15h | Title: DC Microgrid Enabled Hydrogen Production PEM Electrolyzer Authors: Cheikhelwely ELWELYSALEM, Yassine CHAIBI | | |

| 15h-15h15 | Titles Advancing Green Hydrogen Dreductions A Dev | iour of Solid Orido Electrolyzer Coll (SOEC) | |
|------------------------------------|---|--|--|
| 150-15015 | Title: Advancing Green Hydrogen Production: A Review of Solid Oxide Electrolyzer Cell (SOEC) | | |
| | Technology | | |
| | Authors: Salima HANDA, Yassine CHAIBI, Zakaria CHALH | | |
| 15h15-15h30 | | | |
| | Authors: Oumayma DOUICHI, Souad ELKHATTAH | | |
| 15h30-15h45 | Title: Review of Green Hydrogen Production from Offshore Wind: Sustainability, Viability, and | | |
| | Challenges | | |
| | Authors: Sohayla EL OUARDI, Mourad YESSEF, Y | assine CHAIBI, Zakaria CHALH | |
| Oral Presentations by Participants | | | |
| Session 2 (on site) | | | |
| | Dr. Mourad YESSEF | | |
| Session chairs | Prof. Badr | Prof. Badr ELKARI | |
| | Prof. Jaouad ELMEKKAOUI | | |
| 14h30 - 14h45 | Title: Sensible Thermal Energy Storage System: Modeling of an Oil-Pebble Bed | | |
| | Authors: Lahcen EL-MAHAOUCHI, Mourad YESSEF, Ahmed LAGRIOU | | |
| 14h45 – 15h | Title: Emerging Trends in Hybrid Energy Storage: Green Hydrogen as a Long- Term Solution for | | |
| | Sustainable Mobility | | |
| | Authors: Jouhayna BOUANANI, Mourad YESSEF, Ahmed LAGRIOUI | | |
| 15h-15h15 | Title: Hybrid PV-PEM Electrolyzer Systems with Energy Storage: Exergy-Economic Optimization | | |
| | for Arid Regions (Morocco Case Study) | | |
| | Authors: Hajar BOUAYAD | | |
| 15h15-15h30 | Title: Hydrogen Fuel Cell-Based Hybrid Microgrid: A Review of Control Strategies | | |
| | Authors: Imane BENKHADIR | C | |
| 15h30-15h45 | Title: A Review on Green Hydrogen Energy Systems: A Pathway to a Sustainable Future | | |
| | Authors: Mohamed AYOUBI, Mourad YESSEF, Youness HAKAM, Yassine CHAIBI, Zakaria | | |
| | CHALH | | |
| 15h45 - 16h15 | Closing Remarks | | |
| | • Summary of the day and thanks to | • Pr. Yassine CHAIBI, Professor at | |
| | participants and speakers. | ENSA-FEZ. | |
| | • Announcement of upcoming steps and | | |
| | • Announcement of upcoming steps and future events. | | |
| | future events. | | |