



2023 IEEE International Conference on Energy Technologies for Future Grids (IEEE ETFG 2023)

3 – 6 December 2023, Wollongong, Australia

SPECIAL SESSION

Hydrogen Energy Production and Storage for Transportation and Grid Integration

With the ever-increasing penetration of variable and fluctuating renewable energy (solar and wind), the need for storage of energy is on the rise. The elegant idea of storing renewable energy in an energy carrier as Hydrogen which is storable, transportable, and utilisable offers a solution. Hydrogen is the most abundant chemical element and has many uses including but not limited to a way of storing electricity, heating, fuel for transport, and can also be used as a raw material in industry. Large scale production, storage and transportation of hydrogen involves a set of challenging technologies that are receiving international interest as demands for renewable energy resources increase. This special session aims to explore the production of hydrogen using surplus energy produced by renewable energy resources and effective ways of storage of hydrogen with a focus on transportation and grid integration. The papers should cover topics such as, but not limited to:

1. Hydrogen energy storage systems
2. Hydrogen production
3. Hydrogen storage to support power grids
4. Utilisation of hydrogen in transportation
5. Materials for hydrogen energy conversion and storage
6. Hydrogen embrittlement

Special Session Panelists:

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Conference Website: <https://attend.ieee.org/etfg-2023/>

Track SS4: Hydrogen Energy Production and Storage

Paper Submission Site: <https://cmt3.research.microsoft.com/IEEEETFG2023/>