

Green Hydrogen: Fuel of the Future

Preamble:

The Department of Chemistry organized a **Two-Day International Conference on “Green Hydrogen: Fuel of the Future”** in association with the All India Chemistry Teachers Association (ACT) on 19th and 20th September 2025

Participants:

200 Students of Chemistry, Botany of SDMSMK and from other Colleges like P.B. Siddhartha (UG&PG), AG&SG, Vuyyuru, Sri CR Reddy College, Eluru and Maris stella college and SRM University.

Chief Guests:

Sri Kommareddy Patabhi Ram, Chairman of Swachha Andhra Corporation Ltd (SACL), AP.

Prof. Mandava V.Basaveswara Rao, Rector, DEAN, CDC, Dept of Chemistry, Krishna University, Machilipatnam

Resource Persons:

Dr.Sunkara Mahendra, Founding Director,Conn Centre for Renewable Energy, Professor of Chemical Engineering, University of Louisville, Louisville, United States of America.

Dr. Guduru Ramesh Kumar, Founder & CEO GreenXcel Technologies (P) Ltd. India, Associate Professor, Pandit Deendayal Energy University, Gandhinagar, Gujarat.

Mrs. Kondapalli Radha Kalyani, Dept of Chemistry, University of Toledo, USA (Alumni of Siddhartha Mahila Kalasala).

Dr.Mannam Krishna Murthy, Chief Executive Dean , Varsity South Education Management Limited, Hyderabad.(Secretary, South Zone Association of Chemistry Teachers).

Dr.Maram Pardha Saradhi, Associate Professor & HOD, Dept of Chemistry, SRM University, Amaravati, Andhra Pradesh.

Description of the Programme:

The Department of Chemistry successfully organized a Two-Day International Conference on “Green Hydrogen: Fuel of the Future” (19th and 20th September 2025) in association with the All India Chemistry Teachers Association (ACT) with the generous support of Siddhartha Management.

The conference aimed to bring together experts, academicians, researchers, and students to discuss the latest developments, opportunities, and challenges in the field of green hydrogen as a sustainable energy source.

The inaugural session was graced by eminent dignitaries and distinguished speakers like **Sri Kommareddy Patabhi Ram, Chairman of Swachha Andhra Corporation Ltd (SACL), Prof. Mandava V.Basaveswara Rao, Rector, DEAN, CDC, Dept of Chemistry, Krishna University, Machilipatnam**. Over the two days, the conference featured plenary talks, invited lectures, and paper presentations covering diverse themes such as green hydrogen production technologies, storage, utilization, and its role in achieving net-zero targets. The program received overwhelming participation from faculty, research scholars, and

students, providing a platform for knowledge exchange and collaboration. The conference proceedings have been compiled in a book with ISBN Number: 978-93-344-0787-7 further highlighting the academic value of the event.

The conference featured eminent chief guests and invited speakers who shared their insights on the emerging field of **green hydrogen**. The discussions covered a wide range of topics, including production technologies, transportation, storage solutions, and applications of green hydrogen in diverse sectors.

The speakers elaborated on the **current status of hydrogen production in India and other countries**, emphasizing the progress made in scaling up infrastructure and research initiatives. They also provided comparative insights into the **pricing details of green hydrogen** at both national and international levels, highlighting the challenges in making it economically competitive.

Furthermore, detailed presentations were given on the **production processes of green hydrogen** and its potential role in driving sustainable energy solutions. Applications such as **green hydrogen-based power plants, submarines, airplanes, and various industries** were discussed, demonstrating the vast opportunities that hydrogen can unlock in achieving a carbon-neutral future.

The conference concluded with a strong message on the importance of collaborative efforts in research, policy-making, and industrial deployment to accelerate the adoption of green hydrogen globally.

A total of 130 students actively participated from various institutions for the competitions. (Poster presentation and Elocution). In addition, 53 research articles were presented as part of the International Conference on Green Hydrogen Fuel of the Future. The Department sincerely acknowledges the All India Chemistry Teachers Association for its collaboration and expresses deep gratitude to the Siddhartha Management for their constant encouragement and support, which played a crucial role in the grand success of this international conference.



