

# International Conference on Next Generation Sustainable Materials for Water and Energy Solutions (SuWatE'24)



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19-21 December 2024



Hybrid Mode



[www.suwate24.com](http://www.suwate24.com)

## About the conference

Addressing the urgent challenges of water and energy requires the innovative use of chemistry. The proposed International Conference on Next Generation Sustainable Materials for Water and Energy Solutions - 2024 (SuWatE'24) aims to bring together diverse branches of chemistry, materials science, chemical and mechanical engineering and computational studies to further advance this dynamic field of research. Our conference aims to foster discussions and innovative solutions by exploring the current fundamental understanding of chemistry to address energy and water challenges. Additionally, we will focus on enhancing light-matter interactions, designing and synthesizing novel materials, and employing in-situ techniques to study chemical processes for water and energy solutions.

## Thrust areas



### Materials for water and energy

- Ø Multimetallic and single-atom catalysts
- Ø Defect engineering in chemical materials
- Ø Clusters, nanoparticles, plasmonic materials
- Ø Supramolecular materials & crystal engineering
- Ø Metal and covalent organic frameworks
- Ø 2D and 3D-based nanocomposites
- Ø Advanced carbon materials

### Chemistry for Sustainable energy

- Ø Supercapacitors & Battery
- Ø Solar energy conversion
- Ø Fuel cells
- Ø OER, HER & ORR reactions
- Ø Water splitting
- Ø Carbon dioxide reduction
- Ø Nuclear energy applications
- Ø Green hydrogen production
- Ø Green ammonia and urea synthesis
- Ø Bio-renewable energy sector

### Water for sustainable development

- Ø Methods for removal of contaminants
- Ø Photodegradation of organics & dyes
- Ø Separation & purifications of metals
- Ø Extraction of value-added metals & chemicals
- Ø Advanced oxidation process
- Ø Phyto- and phycoremediation
- Ø Antibacterials & antifungal activities
- Ø Water for climate, resilience, and environment

### Theoretical methods for water and energy

- Ø Computational tools
- Ø Quantum computation
- Ø Machine learning and artificial intelligence tools

### For Registration



### Important Dates

- Abstract submission opens: Sep. 15, 2024
- Abstract submission closes: Dec. 10, 2024
- Acceptance notification: Dec. 12, 2024
- Early bird registration closes: Nov. 30, 2024

## Registration Fee Details

Category	Early bird registration*		Delayed Registration*	
	Indian (INR)	Foreign (USD)	Indian (INR)	Foreign (USD)
Students (UG, PG, Ph.D.)	1500	25	1700	40
Postdoc/Faculty/Scientist	2000	50	2500	70
Industry person	2500	100	3000	150
Participation (without any presentation)	1000	10	1500	20
Book chapter publication with ISBN no	Applicable publication charges*			

## Registration



- Registration fee is non-refundable and exclusive of all taxes.
- Registration is mandatory for all the participants.
- Registration fee includes kit, lunch and one-day cultural tour for offline participants

### Publications

All accepted and presented papers will be submitted for possible inclusion to Journals/Proceedings/Book chapters.

Journal details will be updated soon in the SuWatE conference website.

For more information visit [www.suwate24.com](http://www.suwate24.com)

## Conveners

Dr S Muthu Prabhu - 9944498483  
 Dr Sachil Sharma - 7807156581  
 Dr Illa Ramakanth - 9573432526

Chemistry | SAS | VIT-AP

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## Keynote speakers



**Prof Kazunari Domen**  
 University of Tokyo, and Sinshu University, Japan



**Prof Ch Subrahmanyam**  
 IIT Hyderabad



**Prof Byong-Hun Jeon**  
 Hanyang university, South Korea



**Prof S Ramesh LGardas**  
 IIT Madras



**Prof Giehyeon Lee**  
 Yonsei University, South Korea



**Prof S Meenakshi**  
 The Gandhigram Rural Institute, Dindigul



**Prof V Aravindan**  
 IISER Tripathy



**Prof Ahin Roy**  
 IIT Kharakpur



**Prof T Palaniselvam**  
 IIT Madras



**Prof Yuichi Negishi**  
 Tohoku University, Japan



**Prof N Selvaraju**  
 IIT Guwahati



**Prof P Kalimuthu**  
 The Gandhigram Rural Institute Dindigul



**Prof N Thillai Sivakumar**  
 CSIR-CLRI



**Prof Ramendra Sundar Dey**  
 INST, Mohali

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