International Conference on Next Generation Sustainable Materials for Water and Energy Solutions

(SuWatE'24)

VIT-AP UNIVERSITY
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In association with

RSC LOCAL SECTION DECCAN

19-21 December 2024 | Hybrid Mode | 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

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

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

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. 25, 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* (Until Nov 30, 2024)		Delayed Registration* (Dec 1- Dec 10, 2024)	
	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

Conveners

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

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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 Tirupati

Prof Ahin Roy
IIT Kharagpur

Prof T Palaniselvam
IIT Madras

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Tohoku University, Japan

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Prof P Kalimuthu
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Prof N Thillai Sivakumar
CSIR-CLRI

Prof Ramendra Sundar Dey
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