

ALGAL RESEARCH

Recent trends in algal research have significantly expanded the scope of applications, highlighting algae's potential to address various environmental and economic challenges. Initially celebrated for their role in biofuel production, algae are now recognized for their diverse functionalities in sustainable practices. One prominent trend is the use of algae in nutrient upcycling and wastewater treatment. Microalgae, known for their adaptability to various environmental conditions, can utilize the organic content in wastewater as a carbon and nutrient source, rendering the process both efficient and cost-effective. This dual functionality of treating wastewater while producing biomass for further applications underscores the versatility of algae. Advancements in biotechnological research have further propelled algal research, particularly at the genetic level. Genetic engineering is being employed to enhance the efficiency of microalgae in wastewater treatment and to increase the yield of valuable compounds. This includes the production of nutraceuticals, bioactive compounds, and other high-value products, which contribute to the economic viability of algal biorefineries. Another emerging trend is the focus on biovalorization of algal biomass. Researchers are exploring innovative methods to convert algal biomass into various high-value products, such as bioplastics, pharmaceuticals, and cosmetics. This approach not only adds economic value but also supports circular economy principles by minimizing waste and maximizing resource utilization. Moreover, the exploration of algae as a tool for carbon capture and sequestration is gaining traction. Algae's rapid growth rates and high carbon fixation capacity make them suitable for mitigating greenhouse gas emissions, contributing to climate change mitigation efforts.

In pursuit of these goals, the Advances in Algal Research (AAR-2024) conference aims to bring together prominent academicians, researchers, and industry experts to share their experiences and findings across various aspects of algal research. This event will serve as an interdisciplinary platform for emerging researchers to present and discuss the latest innovations, trends, challenges, and solutions in the field of algal biorefinery. By facilitating collaboration and knowledge exchange, AAR-2024 seeks to advance the development and application of algal technologies, contributing to sustainable and impactful solutions.

Venue: Jawaharlal Nehru Technological University (JNTUH), Hyderabad

- The Symposium will be jointly hosted by: IITG & JNTUH.
- O Patron: Prof. Devendra Jalihal & Sri Burra Venkatesham, (IAS)
- O Chairs: **Prof. Kaustubha Mohanty** & **Dr. S. Venkata Mohan**
- O Convenor: **Prof. V Himabindu**
- O Joint Convenor: **Dr. Satya Sundar Mohanty**







Theme: Important dates:		ates:	Registration:	
Algal-Based Carbon Neutrality and Green Technologic	es • 01 st Sep 202	4 Abstract submission open	National	
Algal Biotechnology for Circular Economy	● 30 th Sep 2024	4 Abstract submission closes	Student (including Post-doc)	3,000 INR
	● 30 th Sep 2024	4 Intimation of Abstract Acceptance	Faculty/Scientist	7,000 INR
Smart technologies and automation in algal cultivation	on ●30 th Sep 202	4 Registration opens	Industry	12,000 INR
	• 15 th Oct 202	4 Registration closes		
Algae for Sustainable Agriculture and Food Security			International	
Algae-Derived Therapeutics and functional foods			Student (including Post-doc)	200 \$
			Faculty/Scientist	300 \$
		ct needs to be submitted to	Industry	400 \$
Innovative Applications of Macroaldae in Ricendineering		stech@gmail.com		



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Innovative Applications of Macroalgae in Bioengineering



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