4th Annual Symposium on Advances in Algal Research (AAR-2026)

November 3-4, 2026 | Venue: CSIR-NEERI, Nagpur

DAY 2: 4th November 2026		
08:00 – 09:00	**Breakfast** **Venue: Guest House, CSIR-NEERI**	
09:00 – 10:30	**IL Session VI** **Venue: Auditorium** Chairs: Nilotpala Pradhan & Sourish Bhattacharya	
09:00 – 09:18	IL021	**Anushree Malik,** IIT Delhi *Amazing Interactions of Microalgae: The drivers & Practical Implications*
09:18 – 09:36	IL022	**Pannaga Pavan Jutur**, ICGEB New Delhi *Redefining Phycofactories: Algal Innovation for Sustainable Development through Omics-level Metabolic Rewiring*
09:36 – 09:54	IL023	**Sachitra Kumar Ratha,** CSIR-National Botanical Research Institute, Lucknow *Integrated Assessment of Photosynthetic Efficiency, Carbon Capture, Energy Potential and dewatering of biomass of Microalgae for Sustainable Biomass Production*
09:54 – 10:12	IL024	**Datta Madamwar**, Charotar University of Science & Technology *Characterization and Therapeutic Applications of Cyanobacterial Phycobiliproteins*
10:12 – 10:30	IL025	**V. Veeragurunathan**, CSIR-CSMCRI *Seaweed Resources, Cultivation and Utilization in India*
10:30 – 10:45	Q&A Session	
10:45 – 11:30	**Poster Session with Tea Break & Networking** **Venue: Besides Auditorium**	
11:30 – 12:40	**IL Session VII (Parallel Session)** **Venue: Auditorium** Chairs: Pannaga Pavan Jutur & Sachitra Kumar Ratha	
11:30 – 11:48	IL026	**Paramasivan Balasubramanian,** NIT-Rourkela *Current trends of AI/ML in Algal Biotechnology*
11:48 – 12:06	IL027	**Amritpreet Kaur Minhas**, The Energy and Resources Institute, New Delhi *Fungal Cell-Free Extract-Mediated Biotransformation of Cyanobacterial Biomass for Enhanced Bioavailability of Nutrients*
12:06 – 12:24	IL028	**Amit K. Bajhaiya**, Central University of Tamil Nadu *Deciphering Salt-Stress Adaptation in Microalgae: From Metabolic Remodeling to Molecular Regulation*
12:24 – 12:40	Q&A Session	
11:30 – 12:40	**IL Session VIII (Parallel Session)** **Venue: Committee Room-II** Chairs: Nitin Trivedi & Azam Sheikh	
11:30 – 11:48	IL029	**Shireesh Srivastava**, ICGEB, New Delhi *Adaptive Laboratory Evolution of cyanobacteria for sustainability on Earth and Space*
11:48 – 12:06	IL030	**Soumya Sasmal**, Visva-Bharati, Santiniketan *Engineering Algal Bio-actives into Smart Functional Food Ingredients*
12:06 – 12:24	IL031	**Sourish Bhattacharya**, CSIR-CSMCRI *Bioprospecting of Marine Resources for Biofuels, Biopolymers and Nutraceutical Production*
12:24 – 12:40	Q&A Session	
12:40 – 13:20	**AAR 2026 Award Lectures** **Venue: Auditorium** Chair: Krishna Mohan Poluri	
12:40 – 12:50	Best PhD Thesis Award Winner Talk	
12:50 – 13:00	Best Master's Thesis Award Winner Talk	
13:00 – 13:20	**Ms. Swati Sharma**, Associate Editor - Books, Life Sciences, Springer Nature *Advancing Research Through Scholarly Publishing: From Manuscript to Global Reach.*	
13:20 – 14:30	**Lunch Break & Networking** **Venue: Guest House, CSIR-NEERI**	
14:30 – 15:30	**Short Oral Presentations III (Parallel Session): *Algal Bioenergy, Biofuels and Bioconversion*** **Venue: Auditorium** Chairs: Pravin K. Naoghare & Prangya Ranjan Rout	
14:30 – 14:40	SOP 012	**Ajay Kumar Kataria,** Netaji Subhas University of Technology, New Delhi

		Physiochemical Evaluation of Algal Oil for its Potential Use as Lubricating Base Oil
14:40 – 14:50	SOP 013	**M. V. Rohit,** Sardar Patel Renewable Energy Research Institute, Gujarat *Biomanufacturing Lipids from Photosynthetic Cell Factories for Sustainable Next-Generation Biolubricants*
14:50 – 15:00	SOP 014	**R. Sathish,** CSIR-IMMT, Bhubaneshwar *Microalgae as a Carbon-to-Value Platform: Biomass, Bio products and Hydrothermal Conversion*
15:00 – 15:10	SOP 015	**Deepak Sharma,** SSS-NIBE,Punjab *Biochemical Interaction-Based Kinetic Modelling of Algal Biomass Hydrothermal Liquefaction for Biocrude Production*
15:10 – 15:20	SOP 016	**Kaviya Ravi,** IIT Madras *Production of Levulinic acid from Eucheuma denticulatum via sulphuric acid catalyzed hydrolysis: Effect of process parameters on hydrolysis efficiency*
15:20 – 15:30	SOP 017	**Tribhuwan Kumar,** MANITAllahabad *Comparative Analysis of Different Transesterification Methods Leading to Biodiesel Production from Microalgae Cultivated on Sewage Wastewater*
14:30 – 15:30	**Short Oral Presentations IV (Parallel Session): *Algal Biorefineries and Circular Bioeconomy*** **Venue: Committee Room-II** Chairs: Venkata Subhash & Sanjeev Mishra	
14:30 – 14:40	SOP 018	**Neha Goel,** IIT Roorkee *Selective Recovery and Fractionation of Polychromatic Proteins from Spirulina platensis through an Integrated Circular Biorefinery Approach*
14:40 – 14:50	SOP 019	**Gourav Kumar,** ICGEB, New Delhi *Uncoupling Biomass Loss from Neutral Lipid Hyperaccumulation in Chlorella sorokiniana: Interorganellar Metabolic Crosstalk Between Endoplasmic Reticulum Kennedy and Plastidial TGD Pathways*
14:50 – 15:00	SOP 020	**Dig Vijay Singh,** IITRoorkee *Deep Eutectic Solvent-mediated β-Carotene recovery from Dunaliella salina for an integrated algal biorefinery approach*
15:00 – 15:10	SOP 021	**Sampa Bhowmik,** NIT Agartala *Utilization of protein-based bio- waste derived media for enhancement of microalgal biomass and pigment production*
15:10 – 15:20	SOP 022	**Avinash Singh,** IITBHU *Nano-Enabled Circular biorefinery: Upcycling Algal Biomass into Nitrogen-Doped Carbon Dots for Accelerated Photosynthesis and Lipid Hyper-Accumulation in Monoraphidium neglectum*
15:20 – 15:30	SOP 023	**Maddipatla Naga Sai Karthik,** BITS Pilani, Hyderabad *Metabolic Reprogramming of Chlorella sorokiniana Cultivated in Optimized Food Waste Anaerobic Digestate: Comparative Metabolomics*
15:30 – 16:20	**Short Oral Presentations V (Parallel Session): *Algal Food, Nutrition, Health and High-Value Bioproducts*** **Venue: Committee Room-II** Chairs: Shireesh Srivastava & Soumya Sasmal	
15:30 – 15:40	SOP 024	**B R Sreelekshmy,** RCSS, Kochi *Seaweed-Derived Sulfated Polysaccharides: Unlocking Their Potential for Next-Generation Cosmetics*
15:40 – 15:50	SOP 025	**Poonam Kumari,** CSIR-IICT, Hyderabad *Proteomic Characterization and Functional Bioinformatic Mining of Food-Grade Chlorella Sorokiniana for Potential Bioactive Peptides*
15:50 – 16:00	SOP 026	**Siya Battla,** Gujarat Biotechnology University *Sequential Extraction-Guided Metabolomic Profiling of Marine Algae for Discovery of Anticancer Bioactives*
16:00 – 16:10	SOP 027	**Swati Pawar,** CSIR-NIIST, Thiruvananthapuram *Selenium-Enriched Exopolysaccharides from Nannochloropsis oceanica: Structural Characterization and Functional Evaluation*
16:10 – 16:20	SOP 028	**Akshaya Suresh,** ICAR-CIFE, Mumbai *Cyanobacteria-Derived Vegan Peptone from Spirulina (Arthrospira) platensis as an Animal-Free Component of Microbiological Growth Media: Microbiological Validation and Biochemical Characterization*
15:30 – 16:20	**Short Oral Presentations VI (Parallel Session): *Algal Genomics, Molecular Biology and Microbial Interactions*** **Venue: Committee Room-II** Chairs: Kalyan Gayen & Sangram K. Lenka	
15:30 – 15:40	SOP 029	**Vitasta Jad,** CSIR-NIO, Goa *Taxonomic and functional profiling of microbiomes associated with seaweed habitats across the west and southeast coast of India using Nanopore long-read metagenomics*
15:40 – 15:50	SOP 030	**Priti Kumari,** IIT Guwahati *Multimodal Morphological and Biochemical Characterization of Green Microalgae for Optimizing Whole-Cell Biosensors*
15:50 – 16:00	SOP 031	**Bijaya Nag,** ICGEB, New Delhi *Decoding Cell's Survival: Omics-based Integration of TOR Signalling and Autophagy in Marine Oleaginous Alga Parachlorella kessleri*

4th Annual Symposium on Advances in Algal Research (AAR-2026)

November 3-4, 2026 | Venue: CSIR-NEERI, Nagpur

16:00 – 16:10	SOP 032	**Vaidehi A Nair,** CSIR-NIO, Goa *Genomic and transcriptomic characterization of macroalgae to understand their biosynthetic pathways for the production of its biomolecules.*
16:10 – 16:20	SOP 033	**Anjali Gupta,** Banaras Hindu University, Varanasi *Functional characterization of bolA from a cyanobacterium Synechococcus elongatus PCC 7942: Enhanced stress tolerance in Escherichia coli*
16:20 – 17:10	**Short Oral Presentations VII (Parallel Session): *Smart Algae, Bioprocess Engineering and Digital Technologies*** **Venue: Auditorium** Chairs: Nitin Trivedi & Azam Sheikh	
16:20 – 16:30	SOP 034	**Supratim Ghosh,** BITS Pilani, Hyderabad *Development of an IoT-Enabled Smart Photobioreactor Integrated with Artificial Intelligence and Digital Twin Technology for Real-Time Monitoring and Predictive Cultivation of Microalgae*
16:30 – 16:40	SOP 035	**Rajalakshmi Elumalai,** SRM University, AP *Explainable AI-Based Hyperspectral Imaging for the Non-Destructive Identification of Diverse Microalgal Species*
16:40 – 16:50	SOP 036	**Mohneesh Kalwani,** Dr. Ghanshyam Singh Mahavidyalaya, UP *Optimizing Chlorella sp. Cultivation Supplemented with TargetedNutrient Doses for Enhanced Biomass Production*
16:50 – 17:00	SOP 037	**R. Dinesh Kumar,** IIT Roorkee *Linking Strain-Specific Physiology with Reactor-Dependent Biomass Productivity in Limnospira (Spirulina)*
17:00 – 17:10	SOP 038	**Bhavitha Ala,** KL Education Foundation, AP *Phycosynthesis of Silver Nanoparticles: Antibacterial Activity and Growth-Modulating Effects on Freshwater Algae*
16:20 – 17:00	**Short Oral Presentations VII (Parallel Session): *Algal Lipids, Aquaculture Feed and Sustainable Biomaterials*** **Venue: Auditorium** Chairs: Amit K. Bajhaiya & Rajagopal Subramanyam	
16:20 – 16:30	SOP 039	**Boda Ravi Kiran,** CSIR–IICT, Hyderabad *Metabolic Engineering of Microalgae for Sustainable Omega-3 Fatty Acid Production through Integrated Wastewater Biorefineries*
16:30 – 16:40	SOP 040	**Shovon Mandal,** TERI, New Delhi, *Improving Shelf-Life of Nannochloropsis oceanica Feed Formulations for Sustainable Omega-3 Enriched Egg Production*
16:40 – 16:50	SOP 041	**Nikhil Laxman Kadalag,** ICT Mumbai *Tailoring Fish Oil–Like EPA:DHA profiles through controlled co-cultivation of Phaeodactylum tricornutum and Aurantiochytrium limacinum*
16:50 – 17:00	SOP 042	**Abhishek Sahu,** IIT Delhi *Development of Algal-Derived PHA Nanofibers for Sustainable Food Packaging Applications*
17:15 – 18:00	**Valedictory & Best Oral/Poster Awards Presentations; Declaration of venue for AAR 2027** **Venue: Auditorium**	
18:00 onwards	**High Tea** **Venue: Guest House, CSIR-NEERI**	