

DETAILED PROGRAM SCHEDULE -COSMOS 2024

17 Apr 2024	Day 1 Pre-Conference Tutorials (Hall 1)		
1430-2130	1430-1800	Pre-Symposium Workshop on “ASW Oceanography”	
	1800-1830	Inaugural Function of COSMOS-2024 by the Guest of Honour in the presence of Patron, COSMOS-2024	
	1830-1915	Inaugural Talk by Guest of Honour	
	1915-2015	Cultural evening	
	2015-2130	Dinner	
18 Apr 2024	Day 2 Oral Presentation Sessions (Hall 1)		
0900-1030	Theme 1: Ocean Modeling		
		0900-0925	Keynote Address by Prof. A. D. Rao
	Oral	0930-0940	Seasonal Coastal Processes and Internal Tide Analysis: Modeling Study off West Coast of India <i>Pragnya Makar, AD Rao, B Yadidya & V Pant</i>
	Oral	0940-0950	Mechanism of Formation of Sea Surface Temperature Fronts in the Northeastern Arabian Sea <i>AK Jithin, D Shankar & M P Subeesh</i>
	Oral	0950-1000	Relocatable grid ocean modelling system: Evaluation of High-Resolution coastal Ocean Model for Chennai region <i>M Jishad, Neeraj Agarwal & Ratheesh Ramakrishnan</i>
	Oral	1000-1010	Comparison of the physical state of the north Indian Ocean using global and regional models <i>Sunanda N & Jayanarayanan Kuttippurath</i>
	Oral	1010-1020	Investigation using POM model on the effects of temperature inversion strength on cyclone-induced warming <i>Jimna Janardhanan, Anand P & Pankajakshan Thadathil</i>
	Flash Posters (in-session) 1020-1030		Interactive 3D Ocean modeling system with data visualization <i>Abiya Benny, Anand P, Raju RP & Subin Suresh</i>
			Evaluation of General Ocean Turbulence Model Sensitivity and Performance in Simulating Summer Monsoon Conditions in the Arabian Sea <i>Anakha P Nair, Maheswaran PA, Subeesh MP & Nimmi R Nair</i>
	1030-1050	Tea	
1100-1230	Theme 2: Ocean Acoustics		
		1100-1125	Keynote Address by Prof. Rajender Bahl
	Oral	1130-1140	Analysis of mid-to-high frequency penetration of acoustic waves into a sandy riverbed with application to buried object detection <i>Akshara T S, Sreeram Radhakrishnan & C P Uthaman</i>
	Oral	1140-1150	LOFAR processing for underwater target detection using a deep hydrophone <i>B Deepa, R P Raju, Harikrishnan, Biswajeet Bhukta, AR Anantha Krishnan & Sooraj K Ambat</i>
	Oral	1150-1200	Bearing bias of an end-fire target on towed array during bottom bounce detection <i>Baiju M Nair</i>
	Oral	1200-1210	Reflection and Transmission Coefficient Computation of Acoustic Waves from Water-Sediment Interface <i>Nizreen Farhath Ali & M Ajesh Kumar</i>
	Oral	1210-1220	Suppression of Tow Ship Noise using Active Noise Cancellation Technique <i>Sinchu P, Thasneem ES, Rubin Jose Peter & Sooraj K Ambat</i>

DETAILED PROGRAM SCHEDULE -COSMOS 2024

	Flash Posters (in-session) 1220-1230		A case study of underwater noise in shallow waters off Chennai: Model and observations RP Raju, AR Anantha Krishnan, Subin Suresh & P Anand
			Implementation of range-dependent underwater acoustic model based on ray theory and validation with benchmarks cases Arya Ajith Kumar, Anand P, Raju RP, Jimna Janardhanan CM & Subin Suresh
			Shallow water waveguide attributes to low-frequency broadband acoustic signal characteristics - A case study Urmila P, Nimmi R Nair, Anil Kumar K., Yadhunath EM, R.Sajeev
			Acoustic Metrics and Measures in the Deep Waters of Southeast Arabian Sea Noufal KK, Sanjana MC, Latha G & Raguraman G
	Posters		Shallow water Anthropogenic Noise in South Eastern Arabian Sea: a model-data comparison Pearl Jo An. K, Nimmi R Nair, Anilkumar K., Yadhunath E M, Hari N L, Elizabeth Shani
			Passive Underwater Target Classification using Cepstral Coefficients and Convolutional Neural Network Faiza M Sidhique, Jinsha P P & Sooraj K Ambat
			Surface duct acoustic propagation during Cyclone Phailin in the Central Bay of Bengal Dominic Ricky Fernandez, KN Navaneeth, Neethu S, Pearl Jo An & K. J. Akshay
			Feature Extraction with Hilbert Huang Transform for an Underwater Acoustic Signal Jeljo Antony T J, Pearl Jo An, Nimmi R Nair, Anilkumar K., Yadhunath EM
1230-1330		Lunch	
1400-1530	Theme 3: Air-sea interactions & Biogeochemistry		
		1330-1355	Keynote Address by Dr. G. V. M. Gupta
	Oral	1400-1410	Studies on marine biofouling community along the west coast of India Dattesh V Desai
	Oral	1410-1420	Pathways of bio-communication in the oceans and its implications for biofouling Lidita Khandeparker
	Oral	1420-1430	Spatio-temporal variability of zooplankton standing stock in eastern Arabian Sea inferred from ADCP backscatter measurements Ranjan Kumar Sahu, P Amol, DV Desai, SG Aparna & D Shankar
	Oral	1430-1440	Near-Inertial Wind Energy Input to The Tropical Indian Ocean: Observations from RAMA Array Saradhy Surendran, Subeesh MP & Sabu P
	Oral	1440-1450	Seasonal cycle of zooplankton standing stock inferred from ADCP backscatter measurements in the eastern Arabian Sea SG Aparna, DV Desai, D Shankar, AC Anil, Shrikant Dora & Khedekar
	Oral	1450-1500	Unique physical and biogeochemical characteristics of water column in the Submarine Canyons off Visakhapatnam B Sridevi & VVSS Sarma
	Oral	1500-1510	Application of underwater acoustics in assessing mesopelagic fish population - a case study in the eastern Arabian Sea Smitha B R, Meera K M, Shirin J Jadhav, Arun V S, Hashim Manjebrayakath, Venkata Ramu Ch & Rasheed K
Flash Posters (in-session) 1510-1520		Anomalous shoaling of thermocline in a cyclonic eddy in the Bay of Bengal Navaneeth K N, Martin V Mathew, Subeesh M P & Harikrishnan M	
		Study on impact of the parameters and variables used for estimation of the backscatter from ADCP echo intensity Shrikant Dora , S G Aparna, R Khedekar & A Kankonkar	

DETAILED PROGRAM SCHEDULE -COSMOS 2024

			Relation between Deep Chlorophyll Maximum and Vertical Thermal Structure in the Andaman Sea <i>Eldhose Cheriyan, PA Maheswaran, A Raghunadha Rao & KV Sanilkumar</i>
			Observed near-inertial waves associated with an intense tropical cyclone in Arabian Sea <i>Subeesh MP, Navaneeth KN, Harikrishnan M</i>
1520-1540			Tea
1545-1645	Theme 4: Remote Sensing		
		1545-1610	Keynote Address
	Oral	1615-1625	A Comparison of in-situ Chlorophyll data with OCM-3 data and MODIS data <i>Anand M Vijayan, Ajith Joseph, Ranith R</i>
	Oral	1625-1635	Evaluation of SWOT Beta geophysical products in the North Indian Ocean region during CAL-VAL phase <i>Aditya Chaudhary, Arun Kumar Surisetty, Neeraj Agarwal, Raj Kumar, Rashmi Sharma, Venkat Seshu & Pattabhi Rama Rao E</i>
	Oral	1635-1645	Convective precipitation trends in IITM-ESM and possible mechanisms: A Pre-20 vs. Post-20 perspective <i>Soumya Mohan & Ruchith RD</i>
19 Apr 2024		Day 3 Oral Presentation Sessions (Hall 1)	
	Theme 5: Coastal Ocean Processes		
		0900-0925	Keynote Address by Prof. Prasad K. Bhaskaran
	Oral	0930-0940	Exploring Variability in Thermo-haline and pH characteristics of the South Central Arabian Sea: Implications for Acoustic Analysis <i>Anu Susan Cheriyan, PA Maheswaran, Harikrishnan M, Dominic Ricky Fernandez & A Raghunadha Rao</i>
	Oral	0940-0950	Dynamics of tides and tidal currents in Cochin estuary: observations and numerical simulations <i>Adithya S, Rajith K & Subeesh MP</i>
	Oral	0950-1000	Observations of Diurnal Internal Waves in the Inner Shelf off West coast of India <i>Yadhunath EM, Subeesh MP, Jaya Kumar Seelam & Jithin Abraham</i>
	Oral	1000-1010	Interannual variability of salinity in the upper-layers of South Eastern Arabian Sea and its acoustic relevance <i>Anjali KS, Maheswaran PA, Satheesh Kumar S, Domininc Ricky Fernandez</i>
	Oral	1010-1020	Variability of Hydrographic Properties in the Alleppey Terrace Region: Insights from July 2023 Observations <i>Maheswaran PA, Yadhunath EM, Harikrishnan, Akshay KJ, Ananthakrishnan AR & Ajith A</i>
Flash Posters (in-session) 1020-1025			A Study on Thermohaline Variability of Laccadive High based on Reanalysis Data <i>Hari N L, Anil Kumar. K, and Nimmi R Nair</i>
			Acoustic Implications of Surface Layer Temperature Inversion over Arabian Sea and Bay of Bengal- A Case Study <i>Jimna Janardhanan CM, Anand P, Raju RP, Arjun K Sabu & Pankajakshan Thadathil</i>
Posters			Observations of Poleward undercurrents in the West Indian Coastal Current System during June 2023. <i>KJ Akshay, Anantha Krishnan A.R & Dominic Ricky Fernandez</i>
			Ocean Temperature Profiles from Autoregressive forecasting – A Deep Learning Approach <i>Abhijith Prasad M, K Anil Kumar, Nimmi R Nair, Dominic Ricky Fernandez , T. A. Feroze Babu5, Neethish Thomas & Sumam Mary Idicula</i>
			Coast line change analysis of Shangumugham beach using historic satellite data and its visualization using QGIS <i>Keerthy J, Unny V K & Nimmi R Nair</i>
1025-1045			Tea

DETAILED PROGRAM SCHEDULE -COSMOS 2024

Theme 6: Underwater Sensors and Systems		
	1045-1110	Keynote Address by Dr. D. D. Ebenezer
Oral	1110-1120	Reliability Analysis and Prediction for towed array sonars <i>Jojish Joseph V, Nirmal Mohan & Sooraj K. Ambat</i>
Oral	1120-1130	Experimental validation of leakage current in 1x16 CMUT array <i>Sangeetha M V, Shiny Nair, Ramesh Kumar A V, Manoj N R & Manjula P Raj</i>
Oral	1130-1140	A Case Study of Custom Designed test bed for evaluation of submarine launched instrument – portable launch apparatus for STMS Testing (PLAST) <i>Vibin MV, Dileep Roy SL, Ajithkumar K, Anand P, Anshath Hussain N, Manoj G & Sreeraj R</i>
Oral	1140-1150	Network based acoustic sensor systems for wide area and coastal surveillance: A new paradigm in Underwater Domain Awareness <i>Kiran Govind V, Manoj Kumar K, Arunkumar KS & Remadevi M</i>
Oral	1150-1200	3-dimensional model and vibrational characteristics of 1-3 piezocomposite rectangular bar transducers <i>Nikhil MC & R Ramesh</i>
Flash Posters (in-session) 1200-1210		A novel Human Machine Interface with advanced features for New Generation XBT System <i>Reshmi N Kammath, Anand P, Greeshma P Kumar, Edison Jacob & Manoj G</i>
		FE Modeling and experimental validation of two stack piezocomposite transducer array for underwater applications <i>Sneha Rose Kurian, Vinod Kumar TK, Vinothkrishnan V & Satish B</i>
		Depth Sensitive Underwater Sensor Release System <i>Anshath Hussain N, Anand P, Aravind Dinesh P & Mragank Ojha</i>
		High Reliable Single Core FSK Modulated Data Communication <i>Edison Jacob, Greeshma P Kumar, Abiya Benny, Sreeraj Radhakrishnan, Manoj G & Anand P</i>
Posters		Finite element structural analysis of flank array. <i>Kiran AK and Vivek AK</i>
1215-1315		Lunch
Theme 7: Ocean & Climate Change		
	1320-1345	Keynote Address
Oral	1350-1400	Wind-driven warm water advection to an Arctic glacial fjord during winter <i>Ahammed Shereef MS, Subeesh MP, Divya David, Nuncio Murukesh, Teesha Mathew & Sourav Chatterjee</i>
Oral	1400-1410	Anomalous warming of East Antarctica during austral summer 2019-2020 <i>Anantha Krishnan AR, Sabu P & Subeesh MP</i>
Oral	1410-1420	Observed variability of West India Coastal Current in the deep ocean using moored buoy <i>Andrea Linus Pereira, Anil Kumar K, Subeesh MP & Navaneeth KN</i>
Oral	1420-1430	Influence of Climatic Events on Sea Level Variability over the Bay of Bengal <i>Ullas M Pillai, Ajith Joseph K, Roshin P Raj & Ola M Johannessen</i>
Oral	1430-1440	Drivers of Ocean Surface pCO₂ in North Indian Ocean <i>Rony Peter & Jayanarayanan Kuttippurath</i>
Oral	1440-1450	The ecosystem response of the west Svalbard fjords to the atmospheric forcings <i>Teesha Mathew, Subeesh MP, Vidya PJ, Divya David T, Nuncio Murukesh, Ahammed Shereef MS & Sourav Chatterjee</i>

DETAILED PROGRAM SCHEDULE -COSMOS 2024

	Oral	1450-1500	On accounting carbon budget for the reliable climate predictions: Modelling atmospheric CO₂ variability over the Indian subcontinent <i>Vishnu Thilakan, Dhanyalekshmi Pillai, Jithin Sukumaran, Christoph Gerbig, Haseeb Hakkim, Vinayak Sinha, Yukio Terao, Manish Naja, & Monish Vijay Deshpande</i>
Flash Posters (in-session) 1500-1505			Long term variability of temperature and pH in the Bay of Bengal: an investigation on acoustic perspective <i>Maheswaran P. A., Deepulal P.M., Harikrishnan M., Satheeshkumar S., Rao A.R., and Anjali K.S.</i>
1510-1530			Tea
Theme 8: Ocean Observations: Platforms, Systems and Instrumentation			
		1530-1555	Keynote Address
	Oral	1600-1610	A Portable Atomic Magnetometer with pico-Tesla Sensitivity <i>Akash Bain, Binoy Nambiar, Rajarshi Biswas & G Rajalakshmi</i>
	Oral	1610-1620	Simulation Studies for Range Estimation in Underwater Blue-Green Laser Communication <i>Fahim & Vijesh Arora</i>
	Oral	1620-1630	A Python-based Framework for Visualizing Observed and Derived Ocean Parameters <i>Preetha K G, Saritha S, Jishnu Jeevan, Anoop KA & Maheswaran P A</i>
	Oral	1630-1640	High-volume oceanographic data processing and visualization system <i>Rohit T P, Murugan R, Ibrahim Salim M & Dominic Ricky Fernandez</i>
	Oral	1640-1650	Development of Miniaturized Flextensional Transducer for underwater applications <i>NS Prasad, IR Abisekraj, Satyajit Barman, P Satish, Chhaya Singh, G K Prajapati & P Indrāja</i>
Flash Posters (in-session) 1650-1700			Development of indigenous Temperature-Depth Sensor Chain for Oceanographic studies <i>Thomas KA, Rajeev R Ashokan, Manoj G & Ramesh Kumar AV</i>
			Design of Pressure Compensated Connector for Towed Sonar System <i>Mebin A Abraham & S. Senthil Rajan</i>
			A Novel and Cost-Effective Method Based on Application of Unmanned Aerial Vehicle (UAV) For Reliable Observation of Sea Data <i>U Bhargava, T J Mohan & D Mishra</i>
			Numerical analysis of sea surface manifestations due to the movement of underwater vehicle <i>Aswin E. P. & Krishnakumar S</i>
Posters			Development of Viscoelastic model of Spectra rope for Vibration isolation module in towed array sonar system <i>Mragank Ojha, Senthil Rajan S, Samuel Theophilus M & Ganesh Patel</i>
			Role of Autonomous Underwater Vehicles in Asymmetric Underwater Warfare: Preliminary Study' <i>PSV Jagadeesh & S K Panigrahi</i>
1700-1730			Valedictory Function