Paban Kumar Bhuyan

Curriculum Vitae

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Last Updated: January 21, 2021

Research Interests: Submesoscale processes, Hybrid- computational (Numerical Modelling, and Deep Learning) and observational oceanography .

Education

July 2018 –2020 **M.Tech in Climate Science and Technology(CGPA: 8.63/10)**, *School of Earth, Ocean and Climate Sciences (SEOCS) Indian Institute of Technology Bhubaneswar*, India.
Dissertation: Characteristics of Coastal Current and Associated Processes in the Bay of Bengal.
Advisor: Dr. Sourav Sil

July 2011 – May 2015 **B.Tech in Civil Engineering (CGPA: 6.75/10)**, *Government College of Engineering Kalahandi*, Odisha, India.

Research Experience

July 2020 – Present **Junior Research Fellow** , Deptt. of Applied Mechanics, IIT Delhi.
A numerical study of submesoscale processes driven by river plumes in the Bay of Bengal Region.
Advisor: Dr. Vamsi Krishna Chalamalla.
Sponsoring agency: Science and Engineering Research Board (SERB), DST

March 2019 – January 2020 **Researcher**, *SEOCS, IITBBS*, India.
Quality Control of HF Radar Surface Currents for the investigation of sub-mesoscale Coastal Process and its use for assimilation in the INCOIS Model. Advisor: Dr. Sourav Sil
Sponsoring agency: Indian National Centre for Ocean Information Services (INCOIS)

Fellowships

2011-2015 Foundation For Excellence Scholarship

2018-2020 MHRD Fellowship for Master's research

Publications

2021 Paban Kumar Bhuyan, Samiran Mandal and Sourav Sil : Characterization of the East India Coastal Current using a Drifter, HF Radars and Altimetry (submitted to Journal of Earth System Science)

Skills Acquired

1 Good Working Knowledge in Python, Matlab, R, ROMS (CROCO and Rutgers version), developing xroms-croco(https://github.com/pocean23/xroms-croco).

2 Experience in CDO, Fortran, Bash Scripting, SNAP,GrADS, PARCELS,ODV, Panoply, ParaView, Ferret, Git, Vim.

Field Experience

1 IIT Bhubaneswar - State Pollution Control Board Joint Program (2 days on R/V Sagar Utkal).Conducted for Observational Data collection using CTD and Current meter from Bay of Bengal(Paradeep Coast)

2 Visit to Indian Meteorological Department for launching of Radiosonde, and to study different observational instrument for rainfall, solar irradiance, temperature and humidity measurements.

Industry Experience

1 Site Engineer at LP Associates (August 2015- March 2016)

2 Site Engineer at Mahalaxmi Enterprise (May 2016- October 2016)

Conference

9 – 13 December 2019 **AGU Fall meeting**, *Paban Kumar Bhuyan, Samiran Mandal and Sourav Sil: Characterization of the East India Coastal Current using a Drifter, HF Radars and Altimetry during October – November 2015*, https://doi.org/10.1002/essoar.10501913.1.

17-19 December 2019 **AdCoRe IP-2019**, *Paban Kumar Bhuyan and Sourav Sil : Inter-annual Variation of Salinity Associated with Boundary Currents in the Bay of Bengal. "International Symposium on Advances in Coastal Research with Special Reference to Indo Pacific-2019"*, https://doi.org/10.5281/ZENODO.3813029.

12-14 December 2019 **OSICON − 19**, *Paban Kumar Bhuyan, Samiran Mandal and Sourav Sil: Characterization of the East India Coastal Current using a Drifter, HF Radars and Altimetry. "Sixth Biennial Conference of Ocean Society of India"*.

12-14 December 2019 **OSICON − 19**, *Rahul Deogharia, Samiran Mandal, Paban Kumar Bhuyan, and Sourav Sil: A kriging based approach to restoration of HF radar derived ocean surface currents. "Sixth Biennial Conference of Ocean Society of India"*.

Workshop Attended

2019 Discovery and Use of Operational Ocean Data Products and Services Jointly Organised by the UNESCO/IOC IODE and INCOIS-ITCOcean, Hyderabad, India.

2019 "Use of Earth Observation data for improved Urban Environmental Monitoring" Jointly Organised by IIT BBS and the University of Southampton, IIT Bhubaneswar, India.

2019 "Neural Network Machine Learning Bootcamp." IIT Bhubaneswar, India.

2019 " TERI – NORCE Research School on Data Science in Climate Research: Perspectives on Climate Extremes " New Delhi, India.

2019 "CHAPNET-2019: International Workshop on Advanced Machine Learning Techniques for Climate Informatics", (GRSS, IEEE), ISI- Kolkata, India

2020 "Artificial Intelligence for Earth System Science (AI4ESS) Summer School" (Virtually) NCAR, Boulder, Colorado, USA).