

# 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.

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## 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.

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## Industry Experience

- 1 Site Engineer at LP Associates (August 2015- March 2016)
- 2 Site Engineer at Mahalaxmi Enterprise (May 2016- October 2016)

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## 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”*.

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## 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.