CURRICULUM VITAE

Dr. Sudip Jana
Assistant Professor
Department of Mathematics
School of Basic and Applied Sciences
Adamas University, Kolkata
West Bengal, India
Phone: +91 9775576844
Email: sudip.ocn@gmail.com, sudip.jana@adamasuniversity.ac.in
Web: https://adamasuniversity.irins.org/profile/161860
https://sites.google.com/view/sudipjana

Education:

- **Ph.D. (Oceanography)**, 2014
  Indian Institute of Technology Kharagpur, West Bengal, India
  Thesis title: Ocean State Simulation of the Bay of Bengal with River Input using the Regional Ocean Modeling System
- **M.Sc. (Mathematics)**, 2008
  Indian Institute of Technology Kharagpur, West Bengal, India
- **B.Sc. (Mathematics)**, 2006
  Midnapore College, Vidyasagar University, West Bengal, India
- **Higher Secondary (Science)**, 2002
  West Bengal Council of Higher Secondary Education, West Bengal, India
- **Secondary,** 2000
  West Bengal Board of Secondary Education, West Bengal, India

Positions:

- **Assistant Professor** (February 2019 – Present)
  Department of Mathematics, School of Basic and Applied Sciences
  Adamas University, Kolkata, India
- **Postdoctoral Associate** (June 2016 – June 2018)
  Center for Ocean Engineering, Department of Mechanical Engineering
  Massachusetts Institute of Technology, Cambridge, Massachusetts, USA
- **Postdoctoral Associate Researcher** (September 2014 – May 2016)
  Department of Earth, Ocean, and Atmospheric Science
  Florida State University, Tallahassee, Florida, USA
- **Fulbright Visiting Research Fellow** (September 2012 – May 2013)
  School of Marine Science and Technology
  University of Massachusetts Dartmouth, North Dartmouth, Massachusetts, USA
- **PhD Scholar** (January 2009 – June 2014)
  Centre for Oceans, Rivers, Atmosphere and Land Sciences
  Indian Institute of Technology Kharagpur, West Bengal, India

Fellowships/Achievements:

- Fulbright–Nehru Doctoral and Professional Research Fellowship, 2012
- GATE in Mathematics, 2009
- CSIR-NET in Mathematics, 2008
- Merit-cum-Means (MCM) scholarship from IIT Kharagpur, 2007
- JAM in Mathematics, 2006

Research Interests:

- Ocean observation and data analysis
- Data-assimilative multiscale ocean modeling and prediction
- Underwater acoustics
- Machine learning applications in oceanography

Journal Publications:

- Dey, S. P., Dash, M. K., Sasmal, K., **Jana, S.**, Raju N. J., 2020: Impact of river runoff on seasonal sea level, Kelvin waves, and East India Coastal Current in the Bay of Bengal: A numerical study using ROMS. Regional Studies in Marine Science, 35, 101214
- **Jana, S.**, Gangopadhyay, A., Lermusiaux, P. F. J., Chakraborty, A., Sil, S., Haley, Jr. P. J., 2018: Sensitivity of the Bay of Bengal upper ocean to different winds and river input conditions. *Journal of Marine Systems*, 187, 206-222.
- Kumar, V., **Jana, S.**, Bhardwaj, A., Deepa, R., Sahu, S. K., Pradhan, P. K., Sirdas, S. A., 2018: Greenhouse Gas Emission, Rainfall and Crop Production over North- Western India. *The Open Ecology Journal*, 11, 47-61.
- Lermusiaux, P. F. J., Haley Jr., P. J., **Jana, S.**, Gupta, A., Kulkarni, C. S., Mirabito, C., Ali W. H., Subramani, D. N., Dutt, A., Lin, J., Shcherbina, A. Y., Lee, C. M., Gangopadhyay, A., 2017: Optimal planning and sampling predictions for autonomous and Lagrangian platforms and sensors in the northern Arabian Sea. *Oceanography* 30(2), 172-185.
- Krishnamurti, T. N., **Jana, S.**, Krishnamurti, R., Kumar, V., Deepa, R., Papa, F., Bourassa, M. A., Ali, M. M., 2017: Monsoonal intraseasonal oscillations in the ocean heat content over the surface layers of the Bay of Bengal. *Journal of Marine Systems*, 167, 19-32.
- Dey, D., Sil, S., **Jana, S.**, Pramanik, S., Pandey, P. C., 2017: An Assessment of TropFlux and NCEP Air-Sea Fluxes on ROMS Simulation over the Bay of Bengal Region. Dynamics of Atmospheres and Ocean, 80, 47-61.
- Lermusiaux, P. F. J., Subramani, D. N., Lin, J., Kulkarni, C. S., Gupta, A., Dutt, A., Lolla, T., Haley Jr., P. J., Ali, W. H., Mirabito, C., **Jana S.**, 2017. A Future for Intelligent Autonomous Ocean Observing Systems. *Journal of Marine Research*, 75(6), 765-813.
- **Jana, S.**, Gangopadhyay, A., Chakraborty, A., 2015: Impact of Seasonal River Input on the Bay of Bengal Simulation. *Continental Shelf Research*, 104, 45-64.
- Ghoshal, T., **Jana, S.,** Chakraborty A., 2014: Implication of Empirical Orthogonal Function Analysis to Objectively Analyzed Sea Surface Temperature Data of Bay of Bengal. *Indian Journal of Geo-Marine Sciences*, 43(1), 39-44.
- **Jana, S.**, Gangopadhyay, A., 2023: Impact of Surface Freshening on Sound Speed Structure and Variability over the Bay of Bengal. (To be submitted)

Book Chapter:

- **Jana, S.**, Sil, S., Chakraborty, A. and Ravichandran, M., 2011. Development of a high resolution climatology for the Bay of Bengal using Argo observations. In *Advances in Geosciences: Volume 24: Ocean Science (OS)* (pp. 105-116).

Conferences Publications:

Peer-reviewed full papers:

- **Jana, S.**, Gangopadhyay, A., Lermusiaux, P.F.J., Chakraborty, A., Haley, P.J. 2024, April. Impact of River Inputs on Sound Speed Structures in the Bay of Bengal. In OCEANS 2024-Singapore (pp. 1-6). IEEE. DOI: 10.1109/OCEANS51537.2024.10682181.
- **Jana, S.**, Gangopadhyay, A., Haley, P.J. and Lermusiaux, P.F.J., 2022, February. Sound Speed Variability over Bay of Bengal from Argo Observations (2011-2020). In OCEANS 2022-Chennai (pp. 1-8). IEEE. DOI: 10.1109/OCEANSChennai45887.2022.9775509
- Lermusiaux, P.F., Mirabito, C., Haley, P.J., Ali, W.H., Gupta, A., **Jana, S.**, Dorfman, E., Laferriere, A., Kofford, A., Shepard, G. and Goldsmith, M., Heaney, K., Coelho, E., Boyle, J., Murray, J., Freitag, L., Morozov, A., 2020, October. Real-time probabilistic coupled ocean physics-acoustics forecasting and data assimilation for underwater GPS. In Global Oceans 2020: Singapore–US Gulf Coast (pp. 1-9). IEEE. DOI: 10.1109/IEEECONF38699.2020.9389003
- Kulkarni, C.S., Haley, P.J., Lermusiaux, P.F., Dutt, A., Gupta, A., Mirabito, C., Subramani, D.N., **Jana, S.**, Ali, W.H., Peacock, T., Royo, C.M., Rzeznik, A., Supekar, R., 2018, October. Real-time sediment plume modeling in the Southern California Bight. In OCEANS 2018 MTS/IEEE Charleston, USA (pp. 1-10). IEEE. DOI: 10.1109/OCEANS.2018.8653642.
- Edwards, J.R., Smith, J., Girard, A., Wickman, D., Lermusiaux, P.F.J., Subramani, D.N., Haley, P.J., Mirabito, C., Kulkarni, C.S., **Jana, S.**, 2017, June. Data-driven learning and modeling of AUV operational characteristics for optimal path planning. In OCEANS 2017-Aberdeen, UK (pp. 1-5). IEEE. DOI: 10.1109/OCEANSE.2017.8084779
- Subramani, D.N., Lermusiaux, P.F.J., Haley, P.J., Mirabito, C., **Jana, S.**, Kulkarni, C.S., Girard, A., Wickman, D., Edwards, J., Smith, J., 2017, June. Time-optimal path planning: Real-time sea exercises. In OCEANS 2017-Aberdeen, UK (pp. 1-10). IEEE. DOI: 10.1109/OCEANSE.2017.8084776
- Coulin, J., Haley, P.J., **Jana, S.,** Kulkarni, C.S., Lermusiaux, P.F.J., Peacock, T., 2017, September. Environmental ocean and plume modeling for deep sea mining in the Bismarck Sea. In Oceans 2017-Anchorage, USA (pp. 1-10). IEEE.

Abstracts Presented:

- **Jana S.,** 2023: Analysis of Sonic Layer Depth in the Bay of Bengal from Argo Observations, Eighth National Conference of Ocean Society of India (OSICON-23) 23-25 August 2023, Hyderabad, India.
- **Jana S.,** 2022: Impact of Precipitation and River Discharge on the Bay of Bengal Upper Ocean. International Indian Ocean Science Conference (IIOSC-2020), 14 -18 March 2022, Goa, India.
- **Jana S.,** 2020: Impact of River Runoff on the Upper Ocean Sound Speed Variability over the Bay of Bengal. Fall Meeting 2020 of American Geophysical Union, 1-17 December 2020, Online Everywhere.
- **Jana S.,** 2019: Freshwater Impact on the Sound Speed Structure of the Bay of Bengal. 16th Annual Meeting of Asia Oceania Geosciences Society (AOGS19), 28 July – 2 August 2019, Singapore.
- **Jana S.,** Gangopadhyay A., Chakraborty A., 2013: Simulating the Bay of Bengal with River Inputs using ROMS. 10th Annual Meeting, Asia Oceania Geosciences Society (AOGS), Brisbane, Australia.
- **Jana S.,** Sil S., Chakraborty A., 2012: Sea Surface Temperature Assimilation Experiments in the Bay of Bengal, AOGS-AGU (WPGM) Joint Assembly 2012, Singapore.
- Chakraborty A., Sil S., **Jana S.,** 2012: Assessment of the Predictive Capability of the Multiscale Features of the Bay of Bengal Using Regional Ocean Modeling System, AOGS-AGU (WPGM) Joint Assembly 2012, Singapore.
- **Jana S.**, Chakraborty A., 2011: Water Mass Characteristics of the Andaman Sea. OSICON'11, NIOT, Chennai, India.

- Sil S., **Jana S.,** Chakraborty A., 2011: An ARGO Based Study on the Water Mass Characteristics of the Bay of Bengal and the Arabian Sea. OSICON'11, NIOT, Chennai, India.
- **Jana S.,** Sil S., Chakraborty A., Ravichandran M., Gangopadhyay A., 2010: High Resolution Temperature and Salinity Data for the Bay of Bengal Using Argo Observation. 7th Annual Meeting, Asia Oceania Geosciences Society (AOGS), Hyderabad, India.
- **Jana S.,** Chakraborty A., 2010: Influence of Malacca Strait Throughflow on the Bay of Bengal. The ninth International Conference on Hydro-Science and Engineering (ICHE 2010), IIT Madras, India.
- **Jana S.,** Sil S., Chakraborty A., 2010: Objective Analysis of Temperature over the Bay of Bengal using Levitus and ARGO datasets, Nat. Conf. Coastal Processes, CESS, Trivandrum, India.
- **Jana S.,** Chakraborty A., 2009: Hindcast of Sea Surface Temperature in the Bay of Bengal using Ensemble Technique. OSICON'09, Andhra University, Visakhapatnam, India.

Academic Services:

- **Reviewer:** Ocean Modelling, Deep Sea Research-II, International Journal of Remote Sensing, Ocean Dynamics, Ocean Science, Journal of Atmospheric & Earth Sciences, Environmental Monitoring and Assessment, Marine Biology Research
- **Conference Session Chair:** OCEANS 2024-Singapore
- **Convenor:** International Conference on Recent Advances in Mathematics, Statistics, and Data Science (RAMSDS 2024) at Adamas University, Kolkata
- **Life member:** Ocean Society of India; Indian Science Congress Association
- **Institutional duties:** Served as Departmental Placement Coordinator, Research Coordinator, Exam Coordinator, NAAC Coordinator
- **M.Sc. student guidance:** Three completed, two ongoing
- **Mentoring:** Mentored RSI students at MIT
- **Project:** PI of SEED grant project "Investigation of Underwater Sound Propagation and Surface Sound Duct in the Bay of Bengal" at Adamas University