

DEVANG FALOR

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Bengaluru, Karnataka - 560012, India

EDUCATION

- **Indian Institute of Science** August 2019 - Present
Bengaluru, India
Doctor of Philosophy (Engineering) + Master of Technology (Research)
- **Birla Institute of Technology and Science, Pilani** June 2018
Rajasthan, India
Bachelor of Engineering (Honours) - Chemical Engineering
 - CGPA: 8.50
- **All India Secondary School Certificate Examination (AISSCE)** March 2014
Rajasthan, India
Class XII
 - Grade: 90%

RESEARCH EXPERIENCE

- **Doctoral Student** August 2019 - Present
Bengaluru, India
Centre for Atmospheric and Oceanic Sciences (CAOS), IISc Bengaluru
 - Supervisors: Prof. Bishakhdatta Gayen (Primary) and Prof. Debasis Sengupta
- **Project Scientist B** Jun 2018 - Jul 2019
Bengaluru, India
International Centre for Theoretical Sciences (ICTS), Bengaluru
- **Undergraduate Thesis** Jul 2017 - Nov 2017
Santa Barbara, USA
Department of Mechanical Engineering, University of California, Santa Barbara
- **Summer Research Intern** May 2016 - Jul 2016
Tiruchirapalli, India
Bharat Heavy Electricals Limited (BHEL), Coal Research Centre

PUBLICATIONS

- **Falor D., Gayen B., Sengupta D., Ivey G. N., 2023, Evaporation induced convection enhances mixing in the upper ocean. *Frontiers in Marine Science*, 10, 796.** [Link](#)
- **Falor D., Gayen B., Sengupta D., Chaudhuri D., 2024, Enhanced ocean mixing during the passage of tropical cyclone. *Geophysical Research Letters*, 51(22), e2024GL111925.** [Link](#)
- **Chidambaranathan. B., Falor D., Gayen B., Sengupta D., Jarugula S., The dominant Role of Convection in Winter Mixed Layer Deepening in the Bay of Bengal** *Submitted*.
- **Falor D., Dankhara K., Gayen B., Upper ocean tracer transport in a diurnal cycle.** *In preparation.*

CONFERENCES/WORKSHOPS/SUMMER SCHOOLS ATTENDED

- **Geophysical Flows: From field to the lab, Indian Institute of Technology Madras, Discussion Meeting, 2024**
 - Talk Title: **The role of surface evaporation in diurnal mixed layer dynamics**
- **Physics of the Ocean Summer School, DPG Physikzentrum Bad Honnef, Germany 2023**
- **IX International Symposium on Stratified Flows, Department of Applied Mathematics and Theoretical Physics, University of Cambridge, 2022**
 - Talk Title: **Convection enhanced mixing in the upper ocean during a tropical cyclone**
- **Waves, Instabilities and Mixing in Rotating and Stratified Flows, International Centre for Theoretical Sciences, Bengaluru 2022**
- **Ocean Sciences Meeting (OSM) 2022**
 - Talk Title: **Role of convection in driving enhanced upper-ocean mixing in response towards a tropical cyclone**

- Japan Geoscience Union Meeting (JpGU) 2021
 - Talk Title: Convection enhances upper-ocean mixing during a tropical cyclone
- Australian Meteorological and Oceanographic Society (AMOS), Science for Impact 2021
 - Talk Title: Role of convection and turbulence in the upper ocean mixing during a tropical cyclone
- Ocean Mixing and Monsoon (OMM) Meeting, Space Application Centre, ISRO, Ahmedabad, 2020
- Turbulence from Angstroms to Light years, International Centre for Theoretical Sciences, Bengaluru 2018

HONORS AND AWARDS

- Outstanding Student Presentation Award (OSPA): Japan Geoscience Union Meeting (JpGU) 2021.
- Prime Minister's Research Fellowship (PMRF): August 2021 - July 2024.
- Grantham Fellowship: Indian Institute of Science, Bengaluru. August 2020 - July 2021
- All India Rank (AIR) 15: Graduate Aptitude Test in Engineering (GATE) 2019
- Vice Chairperson: Indian Institute of Chemical Engineers, Pilani Student Chapter

TEACHING AND OUTREACH

- Outreach Article: Ocean evaporation on a diurnal scale ([LINK](#))
- Outreach Article: Resolving Accurate Ocean States During Tropical Cyclones ([LINK](#))
- Outreach Article: Gadi's Advanced Simulations Help Unravel Ocean Mixing Dynamics During Tropical Cyclones ([LINK](#))
- Teaching Assistant: Environmental Fluid Dynamics August 2021 - December 2021.
- Prime Minister's Research Fellowship (PMRF) Teaching duties: 50 hours per week. August 2021 - July 2024.
- Mentored one Master's student and multiple interns
- Delivered a webinar on Cyclones: Predicting Turbulence ([LINK](#)) on *Researcher on Web* platform, 2020.

SKILLS

- Fortran (77/90), C, Message Passing Interface (MPI), L^AT_EX, MATLAB, Python, OpenFOAM, ANSYS, ParaView

REFERENCES

1. Prof. Bishakhdatta Gayen
 - Associate Professor, Department of Mechanical Engineering
 - University of Melbourne
 - Assistant Professor, Centre for Atmospheric and Oceanic Sciences
 - Indian Institute of Science, Bengaluru
 - Email: bishakhdatta.gayen@unimelb.edu.au, bgayen@iisc.ac.in
2. Prof. Debasis Sengupta
 - ICTS Endowed Visiting Professor
 - International Centre for Theoretical Sciences, Bengaluru
 - Email: [dson@iisc.ac.in](mailto:dsen@iisc.ac.in), debasis.sengupta@icts.res.in, debasis0189@gmail.com
3. Prof. Gregory N. Ivey
 - Emeritus Professor, Oceans Graduate School
 - University of Western Australia, Perth
 - Email: greg.ivey@emeriti.uwa.edu.au