

# DEVANG FALOR

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Bengaluru, Karnataka - 560012, India

## EDUCATION

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

## RESEARCH EXPERIENCE

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

## 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

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- **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

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- **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

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- Fortran (77/90), C, Message Passing Interface (MPI), L<sup>A</sup>T<sub>E</sub>X, MATLAB, Python, OpenFOAM, ANSYS, ParaView

## REFERENCES

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1. **Prof. Bishakhdattha Gayen**  
Associate Professor, Department of Mechanical Engineering  
University of Melbourne  
Assistant Professor, Centre for Atmospheric and Oceanic Sciences  
Indian Institute of Science, Bengaluru  
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2. **Prof. Debasis Sengupta**  
ICTS Endowed Visiting Professor  
International Centre for Theoretical Sciences, Bengaluru  
Email: [dsen@iisc.ac.in](mailto:dsen@iisc.ac.in), [debasis.sengupta@icts.res.in](mailto:debasis.sengupta@icts.res.in), [debasis0189@gmail.com](mailto: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](mailto:greg.ivey@emeriti.uwa.edu.au)