Curriculum Vitae 25 Feb 2020

POPAT U. SALUNKE

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Indian Institute of Technology Delhi
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Educational Information

Ph. D. Atmospheric Science **(July 2014 – present)**
Centre for Atmospheric Sciences,
Indian Institute of Technology Delhi, India

M. Tech. Atmospheric Science **(June 2012)**
University of Pune & Indian Institute of Tropical Meteorology, Pune, India

M. Sc. Physics **(June 2009)**
University of Pune, India

B. Sc. Physics **(June 2007)**
University of Pune, India

Teaching Experience

Teaching Assistant

(*Responsibility: Proctor minors and major exam, Evaluation of answer sheets, Grading exams, Duties including climate modeling lab, Conduct tutorials and labs*)

- The Earth's Atmosphere: Physical Principles **(Jul 2017 – Dec 2019)**
- Tropical Weather and Climate **(Jan 2016 – May 2017)**
- Numerical Modeling of the Atmospheric and Oceanic Phenomena **(Jan 2014 – Dec 2015)**

Professional Honours and Awards

- Research Excellence Travel Award (RETA) from IRD (IIT Delhi) **(2019)**
- CSIR Travel Grant (*Not Availed*) **(2019)**
- Research Fellowship, Indian Institute of Technology Delhi **(Jul 2014 – Jul 2019)**
- Student Travel Grant and Scholarship AGU Fall Meeting 2017 (*Not Availed*) **(2017)**
- Research Fellowship, Indian Institute of Tropical Meteorology **(2010 – May 2012)**

Professional Memberships

American Geophysical Union **2017– Present**
European Geosciences Union **2019– Present**

Computer Proficiency

Operating systems: Linux, Mac and Windows
Software's: NCAR command language (NCL), MATLAB, Origin, CDO, NCO, Shell Scripting
Languages known: Fortran90
Model Used: NCAR CESM-CAM, RegCM4

Research Interest

Climate Modelling, Climate Data Analysis and Application, Climate Change and Climate Extreme, Dynamics of Indian Monsoon, Geoengineering, Statistical Analysis

Research Experience

Research Scholar (July 2014 – present)
Centre for Atmospheric Sciences,
Indian Institute of Technology Delhi, India
Supervisor: Dr. S. K. Mishra
Title: Himalaya-Tibetan Highland: Climate Change, Geoengineering, and Indian Monsoon

Visiting Research Student (Jul 2019 – Sept 2019)
King Abdullah University of Science and Technology, Thuwal, Saudi Arabia
Advisor: Prof. Ibrahim Hoteit
Title: Assessment of NEX-GDDP multi-model mean for the historical climate of Arabian Peninsula

Senior Research Fellow (Feb 2014 – July 2014)
Centre for Atmospheric Sciences, Indian Institute of Technology Delhi, New Delhi, India
Advisor: Dr. Sagnik Dey
Title: Impact of Air Quality and Heat Stress on Health: Future Projections for India

Project Assistant (Jul 2013 – Feb 2014)
Centre for Atmospheric Sciences, Indian Institute of Technology Delhi, New Delhi, India
Advisor: Prof. S. K. Dash
Title: Asian Cites Adapt-Impacts of Climate Change in Target Cites in India and the Philippines and local adaptation strategies

Junior Research Fellow (Jan 2013- Mar 2013)
Department of Space and Atmospheric Sciences, University of Pune, Pune, India
Advisor: Dr. A. K. Karipot
Title: Calibration and Validation of Land Surface Model by using INSAT-3D Observations and in situ Measurements

M. Tech Dissertation (Jun 2011 – May 2012)
Indian Institute of Tropical Meteorology, Pune,
Advisor: Dr. M. N. Patil (Scientist E)
Title: Variability of Fluxes in Atmospheric Boundary Layer by Using Micrometeorological Tower

Publications

1. **Salunke P.,** S. Jain, and S. K. Mishra: Performance of the CMIP5 models in the simulation of the Himalaya-Tibetan Plateau monsoon, *Theoretical and Applied Climatology,* 137, 909-928, 2019. DOI:10.1007/s00704-018-2644-9
2. Jain S., **P. Salunke**, S. K. Mishra, and S. Sahany: Advantage of NEX-GDDP over CMIP5 and CORDEX Data: Indian Summer Monsoon, *Atmospheric Research*, Volume228,152-160, 2019. DOI:10.1016/j.atmosres.2019.05.026
3. Mishra S. K., S. Jain, **P. Salunke**, and S. Sahany: Past and Future Climate Change over the Himalaya-Tibetan Highland-Inferences from APHRODITE and NEX-GDDP DATA, *Climatic Change,* 156,315-322, 2019. DOI:10.1007/s10584-019-02473-y
4. Zebaze S., S. Jain, **P. Salunke**, S. Shafiq and S. K. Mishra: Assessment of CMIP5 multimodel mean for the historical climate of Africa, *Atmospheric Science Letters*, 20,1-12, 2019. DOI:10.1002/asl.926
5. Parihar Singh R., P. K. Bal, V. Kumar, S. K. Mishra, S. Sahany, **P. Salunke**, S. K. Dash and R. Dhiman: Numerical Modeling of the Dynamics of Malaria Transmission in a Highly Endemic Region of India, *Scientific Reports* 9(1): 11903. 2019. DOI:10.1038/s41598-019-47212-6
6. Mishra, S. K., S. Sahany, **P. Salunke**, In-Sik Kang, and S. Jain: Fidelity of CMIP5 Multi Model Mean in Assessing Indian Monsoon Simulations. *npj Climate and Atmospheric Sciences,* 1, Article number 39, 2018. DOI:10.1038/s41612-018-0049-1
7. Jain S., **P. Salunke**, S. K. Mishra, and S. Sahany: Performance of CMIP5 models in the simulation of Indian summer monsoon, *Theoretical and Applied Climatology*, 137,1429-1447, 2019. DOI:10.1007/s00704-018-2674-3
8. Jain S., S. K. Mishra, **P. Salunke**, and S. Sahany: Importance of the Resolution of Surface Topography Vis-à-Vis Atmospheric and Surface Processes in the Simulation of the Climate of Himalaya-Tibet Highland. *Climate Dynamics*, 52,4735-4748, 2019. DOI:10.1007/s00382-018-4411-0
9. Sahany S., S. K. Mishra, and **P. Salunke**: Historical Simulations and Climate Change Projections over India by NCAR CCSM4: CMIP5 vs. NEX-GDDP. *Theoretical and Applied Climatology*, 135,1423-1433, 2019. DOI:10.1007/s00704-018-2455-z
10. Mishra S. K., S. Sahany, and **P. Salunke**: CMIP5 vs. CORDEX over the Indian region: how much do we benefit from dynamical downscaling? *Theoretical and Applied Climatology*, Volume 133, Issue 3-4, pp 1133-1141, 2017. DOI:10.1007/s00704-017-2237-z
11. Mishra S. K., S. Sahany, and **P. Salunke**: Linkages between MJO and summer monsoon rainfall over India and surrounding region. *Meteorology and Atmospheric Physics*, Volume 129, pp 283-296, 2017. DOI:10.1007/s00703-016-0470-0
12. Dash S. K., S. Dey, **P. Salunke**, M. Dalal, V. Saraswat, S. Chowdhury, R. K. Choudhary: Comparative Study of Heat Indices in India Based on Observed and model Simulated Data. *Curr World Environ*,12(3),2017. DOI:10.12944/CWE.12.3.06

References

Dr. Saroj Kanta Mishra
(PhD Supervisor)
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Prof. S. K. Dash
President, IMS, &
Formerly Emeritus Professor & Head
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