AMULYA CHEVUTURI, PhD, FRMetS

EXPERTISE

Climate change | Data analysis | Forecast skill | Extreme events | Monsoons

EDUCATION

Ph.D. Atmospheric Sciences (2009-2015) School of Environmental Sciences, Jawaharlal Nehru University, Delhi, India | Thesis: Study of precipitating events over India | Grades: 84.1/9.0

M.Sc. Environmental Studies (2007-2009) TERI University, Delhi, India | Thesis: Understanding carbon market projects and their sustainability assessment through MATA-CDM tool | Grades: 8.64/10.0

B.Sc. Zoology Honours (2004-2007) Sri Venkateswara College, Delhi University, Delhi, India | Grades: 78.91%

PROFESSIONAL EXPERIENCE

Post-Doctoral Research Assistant   **(2016 – current)**
- **Institution:** National Centre for Atmospheric Science, Department of Meteorology, University of Reading, UK
- **Research Projects:**
  - *PEACFLOW project under CSSP Brazil* – Developing flood and drought forecast models for Negro River, Manaus, Brazil based on the influence antecedent rainfall and large-scale climate variability using machine learning methods. Automating the best models developed and sharing with collaborators for operational use.
  - *PERCHANCE project under CSSP China* – Diagnosing the contribution of Meiyu front, Quasi-stationary waves, monsoon onset on East Asian water cycle in climate models at different resolutions. Understanding climatic variability of synoptic phenomena effecting rainfall over East Asia in different seasons.
  - *DUBSTEP project under CSSP Brazil* – Evaluating the skill of South American rainfall and land surface conditions in multiple forecast models at different lead times. Estimating the climate risk associated with short and intense drought conditions over South America.
  - *DREAM project under CSSP China* – Understanding the climate change impacts over Asian-Australian monsoon regions using multi-model large-ensemble climate projections. Diagnosing the cause of climatic change in rainfall over East Asia using large-ensemble climate data.
  - *Indian Monsoon Seasonal Forecasting project under Monsoon Mission* – Evaluating the skill on Indian monsoon seasonal forecasts in UK Met Office and ECMWF models. Designing and executing climate model experiments.
- **Other Responsibilities:** Supervising Masters' and Bachelors' student dissertations | Teaching Masters' level Introduction to computing course | Publishing research output in excellent journals | Documentation of code on open source platforms | Knowledge exchange with collaborators | Media and public engagement | First Aider

Guest Lecturer   **(2009 – 2010)**
- **Institute:** Department of Resource Management and Design Application, Lady Irwin College, Delhi University, India
- **Course:** Climate Change, Ecosystem and Society (Masters level), Masters in Environmental Management & Sustainable Development
- **Responsibilities:** Classroom teaching | Organizing practices and field trips | Reviewing assignments | Marking dissertations | External examiner for practical examination in 2013

Environmental Consultant   **(Jan 2009 – Jul 2009)**
- **Company:** Emergent Ventures India Pvt. Ltd., Gurgaon, Haryana, India
- **Role:** Review and consultation for emission trading projects for regulated and voluntary markets | Provide expertise and advice project partners for the review process | Documentation of the emission trading projects for claim towards carbon points

PUBLICATIONS

Summary: 8 first-author peer-reviewed publications | **9 co-author** peer-reviewed publications | **2 first-author** edited book chapters | **1 co-author** book publication

Highlights: Co-author in Cui et al. (2020) published in *Nature Communications* | **Chevuturi et al. (2018)** is *Earth's Future* journal's top cited paper in 2018-2019 | **h-index** = 10 | **Citations** = 287

Full publication list: https://orcid.org/0000-0003-2815-7221

COMPUTING EXPERIENCE

Programming Languages: Python, FORTRAN | **Geospatial Software:** GrADS, CDO, NCL, ESMValTool | **High Performance Computing:** Parallel/Serial, Cluster scheduling | **Operating Systems:** Windows, LINUX | **Other:** Microsoft Office, Adobe, LaTeX | **Climate Models:** Weather Research and Forecasting Model, UK Met Office Unified Model

SCIENTIFIC COLLABORATIONS

UK: ECMWF, Met Office | **India:** India Meteorological Department | National Institute of Hydrology | **China:** Peking University | Institute of Atmospheric Physics | **Brazil:** National Institute for Space Research | Geological Survey of Brazil | National Institute of Amazonian Research | **USA:** Purdue University, University of Maryland

AWARDS & HONOURS

Fellow of Royal Meteorological Society (FRMetS), UK (2019)

Academic Visits: Institute of Atmospheric Physics, Beijing (2019) | Institute of Technology, Delhi (2019) | Freie Universitat, Berlin (2008)

Fellowships: CSIR for Doctoral studies (2013-2015) | CSIR, India for Doctoral studies (2010-2013) | UGC, India for Doctoral studies (2009-2010)

Merit Certification: NET Lectureship for Environmental Sciences by UGC, India (2011) | NET Lectureship for Earth, Atmospheric, Ocean and Planetary Sciences by CSIR, India (2010)

Medals: First position in Sri Venkateswara College (2008) | Third position in Delhi University (2007) | Third position in Delhi University (2006)

Funding: Co-PI in NERC Research Experience Placements (2020) | Co-PI in Undergraduate Research Opportunities Programme (2019) | Named researcher on PEACFLOW project (2019) | Name researcher on PERCHANCE project funding (2017) | Named researcher on DUBSTEP project funding (2017) | DAAD (German Academic Exchange Service) academic exchange funding (2008)

MEDIA ENGAGEMENT & OTHER RESPONSIBILITIES

Media: Phys.org (2021) | ANI (2021) | LiveMint (2020) | New Scientist (2019) | DownToEarth (2019)

Outreach: STEM Ambassador UK (2017 onwards) | Reading Climate Festival, 2020 | Met Taster Day, 2019 | British Science Week (Meteorology Sessions), 2019 | Met Taster Day, 2018 | Meteorology & Met Office Work Experience programme, 2018 | School visit to Meadow Vale Primary School in Bracknell, 2017

Responsibilities: First Aider (2016 onwards) University of Reading | Editor for Earth Day Annual Magazine, Jawaharlal Nehru University (2012) | President (2007), Vice President (2006), Executive Member (2005) of Zoological Society, Delhi University