REDDY, KANGARI NARENDER

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EDUCATION :

Qualifications	Discipline	University	Year	Percentage
M. Tech	Atmospheric & Oceanic Sciences	Centre for Atmospheric Sciences, IIT Delhi	2019	9.57 (CGPA) *Ist RANK*
B. Tech	Mechanical Engineering	Vardhman College of Engineering, JNTU Hyderabad	2016	7.38 (CGPA)

RESEARCH INTERESTS:

- Land surface modeling
- Crop growth modeling
- Land-Atmosphere interactions
- Climate change effects on agro-ecosystems
- Renewable energy meteorology

PUBLICATIONS:

- **Reddy, K. N.,** Gahlot, S., Baidya Roy, S., Varma, G. V., Sehgal, V. K., and Vangala, G., 2023: Carbon fluxes in spring wheat agroecosystem in India, Earth Syst. Dynam., 14, 915–930, https://doi.org/10.5194/esd-14-915-2023.
- Varma, G. V.; **Reddy, K. N.**; Baidya Roy, S.: Rice crop phenology and management data across rice growing regions of India from 2000 to 2021, *PANGAEA*, https://doi.pangaea.de/10.1594/PANGAEA.961198 ***(dataset in review)***
- Varma, G. V.; **Reddy, K. N.**; Baidya Roy, S.: Weather data at experimental rice sites across rice growing region of India from 2000 to 2021. *PANGAEA*, https://doi.pangaea.de/10.1594/PANGAEA.959854 ***(dataset in review)***
- **Reddy, N. K.**, and Baidya Roy, S., 2020: Layout Optimization for Offshore Wind Farms in India Using the Genetic Algorithm Technique, *Advances in Geosciences* 54 (October): 79–87. https://doi.org/10.5194/adgeo-54-79-2020

AWARDS AND ACHIEVEMENTS:

- Ganga Devi and Khem Chand Memorial award for securing highest CGPA in the MTech batch of 2019, CAS IIT Delhi, 2019

- Best innovation award, Automotive IC Engine & Development training program conducted by Automotive Industry Simulation Internship, 2014

RESEARCH PROJECTS:

- Indian Space Research Organisation (ISRO) Geosphere Biosphere Program (IGBP) in collaboration with Indian Institute of Technology Delhi.

COMPUTING AND MODELLING SKILLS:

- **Geoscientific models:** Community Land Model (CLM-CESM), Integrated Science Assessment Model (ISAM), Simple and Universal Crop Growth Model (SUCROS), and Weather Research and Forecasting model (WRF).
- **Programming Languages:** FORTRAN, MATLAB, Python
- **Operating systems:** UNIX/LINUX, Windows
- **Data analysis and visualization tools:** CDO, NCL
- Knowledge of parallel computing on HPC

CONFERENCE PRESENTATIONS:

- **Reddy, K. N.**, Baidya Roy, S., Bhattacharya, B. K., and Varma, G. V., (2023): Improving crop dynamics in the CLM5 land surface model, EGU General Assembly 2023, Vienna, Austria, 24–28 Apr 2023, EGU23-6395, https://doi.org/10.5194/egusphere-egu23-6395.
- **Reddy K. N.**, and Baidya Roy, S., (2022): Improving the crop module in CLM5 to better represent the spring wheat grown in South Asia, AGU Fall Meeting 2022 (Poster URL: https://agu2022fallmeeting-agu.ipostersessions.com/Default.aspx?s=FA-F6-86-6E-95-F2-4A-5D-3C-58-CB-AA-AD-6C-E9-21)
- **Reddy, K. N.**, Baidya Roy, S., (2020): Layout optimization for a large offshore wind farm using Genetic Algorithm, EGU General Assembly 2020, Online 4-8 May 2020, EGU2020-12654, https://doi.org/10.5194/egusphere-egu2020-12654.
- **Reddy, K. N.**, (2019): Offshore windfarm layout optimization, Clean Energy for Sustainable Economy, and Environment workshop, IIT Delhi, 21 September 2019.

SEMINAR, WORKSHOPS AND HACKATHONS ATTENDED:

- Joint WRF and MPAS Users' Workshop 2021, organized by MMM laboratory, NCAR 7-10 June 2021.
- Science and Technology for New Age: Acquisition, Analyses and Adaptation, Indo-Canada Agri-Tech virtual workshop organized by IIT Delhi and University of Alberta 3-4 March 2021.
- Agricultural Technology workshop organized by IIT Delhi and University of Queensland, 15-16 June 2021.
- Participated and led the team in the Shell.ai Hackathon for Sustainable and Affordable Energy Windfarm Layout Optimisation Challenge, September-November 2020, https://www.hackerearth.com/challenges/new/competitive/shell-hackathon/. (secured 63rd position among ~1600 participating teams)