
Dr. Vinu K Valsala



Dr. Vinu Valsala is Scientist-E at the Indian Institute of Tropical Meteorology (IITM), Pune. He is a post-graduate in Physical Oceanography and obtained his Ph.D. in Ocean and Atmospheric Sciences from Hokkaido University, Japan.

His major research contributions are in Ocean Carbon Cycle, Biogeochemistry, Oceanic Tracers, air-sea CO₂ flux and ocean pCO₂, terrestrial carbon cycle, green house gases, Biogeochemical modelling, data assimilation and assessment of ocean model biases in coupled climate models and its role in simulated interannual variability. He has contributed to the development of numerical ocean models to

study global ocean carbon cycle (Ocean Tracer Transport Model) and tropical ocean dynamics (Ocean Dynamic-Thermodynamic Model).

He has also contributed to developing a global air-sea CO₂ flux data set from 1980 to 2010, a first of its kind, through variational data assimilation of surface ocean pCO₂ observations in a Biogeochemistry model. Several national and international research groups use this data set in their research, and it has also been used as a bench mark in assessing air-sea CO₂ fluxes in CMIP-5 models. Dr. Vinu has participated in global efforts of synthesising and assessing of the contemporary ocean carbon fluxes and contributed dataset and participated in papers published for Indian and Pacific Oceans.

Currently he is associated with the Training Program of IITM/MoES and looking after the Development of Skilled Manpower in Earth System Sciences (DESK) program at IITM. Dr. Vinu has contributed to teaching and has guided several M.Sc/M.Tech students and is currently guiding 3 Ph.D. students.

Dr. Vinu Valsala has published a total of 40 research publications in peer reviewed journals (30 publications from 2011 onwards) and has received over 600 citations in total to his credit.

Dr. Vinu Valsala is awarded the Certificate of Merit for his outstanding contributions in the field of Atmospheric Science and Technology