

Dr. Vijayakumar S. Nair



Dr. Nair is currently with the Space Physics Laboratory of Vikram Sarabhai Space Centre, (Indian Space Research Organization) Thiruvananthapuram, Kerala as a scientist since 2011. After completing his B.Sc and M.Sc (in Physics) from the Mahatma Gandhi University, Kottayam, Kerala, he carried out his doctoral work in Space Physics Laboratory, on Radiative Forcing due to Atmospheric Aerosols over the Oceanic Regions around the Indian Subcontinent, for which the Ph D degree has been awarded by the University of Kerala, Thiruvananthapuram in year 2010. During postdoctoral period, he worked as a research associate (2010) in the Space Physics Laboratory and as a visiting scientist (2011) at the Earth System Physics group of Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy. He also has been a visiting scientist at the Atmospheric Chemistry Division of National Centre for Atmospheric Research (NCAR), Boulder, USA in 2013.

His research interests include atmospheric aerosols, aerosol-cloud-climate interactions and climate change with focus over the Indian region. His works on aerosol radiation interactions, aerosol-cryosphere-atmosphere interactions and their implications to the regional climate using multi-platform observations, satellite data, scouting expeditions, network data and regional climate models have been well-recognized in the field and have been original contributions. Dr. Nair's works have unraveled the complex interactions of aerosols on climate. He has brought out first-of-its kind results depicting the climate implications of aerosols over the Indian region; (i) three dimensional distribution of atmospheric aerosols and its heating structure (ii) impacts of meridional and zonal gradients in aerosol induced diabatic heating in the lower free troposphere on regional circulation, (iii) role of ocean biogeochemistry on the aerosol formation over the Oceans around India and (iv) regional climate implications of snow darkening due to the deposition of black carbon aerosols on Himalayan glaciers. Currently he is working on the effect of natural and anthropogenic aerosols on the Indian monsoon.

Dr. Nair has published 33 papers in SCI journals with more than 550 citations and an H index of 14. He has won the Indian National Science Academy's (INSA) young scientist award medal for the year 2011 and Kerala State Council for Science, Technology and Environment (KSCSTE) young scientist award for the year 2013.

He is a young associate of Indian Academy of Science, Bangalore since 2010 and Simons associate of Abdus Salam International Centre for Theoretical Physics (ICTP) since 2014. He has won several best paper awards in national and international symposia. He had given lectures and invited talks in India and abroad.

In recognition of his outstanding contributions in the field of atmospheric aerosols and aerosol-cloud-climate interactions, the Ministry of Earth Sciences honors Dr. Vijayakumar S. Nair with “Young Researcher Award for the year 2014”.