

Curriculum Vitae

Personal Information

Nithya K.

Research Associate I,
Space Physics Laboratory
Vikram Sarabhai Space Centre
Indian Space Research Organisation (ISRO)
Dept. of Space, Govt. of India
Thiruvananthapuram-695022, INDIA
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Academic Qualification

Degree	Year	College/University
B.Sc. (Physics)	2008-2011	Govt. Victoria College (Calicut University)
M.Sc. (Meteorology)	2011-2013	Cochin University of Science and Technology
Ph.D. (Atmospheric Science)	2021	Cochin University of Science and Technology

Title of thesis: Tropical Easterly Jetstream over Indian Summer Monsoon region and its association with adjacent and remote factors

Professional experience

Designation	Duration	Institution
Research Associate	October 2022 - Present	Space Physics Laboratory, VSSC, ISRO
Senior Research Fellow	December 2015 – December 2018	Cochin University of Science and Technology
Junior Research Fellow	December 2013 - December 2015	Cochin University of Science and Technology

Research Interests

- ✚ Asian Summer Monsoon variability
- ✚ Ocean-Atmosphere Interaction
- ✚ Hydroclimatic Extremes

Technical Skills

- ✚ Experience meteorological data visualization and analyzing tools like CDO, GrADS, Ferret, Origin, NCL and handling a large volume of data and conversant with data formats like NetCDF, HDF, GRIB, etc
- ✚ Working knowledge in both LINUX and WINDOWS operating systems. Familiar with programming languages like FORTRAN, C, Python and MATLAB and also with shell scripting.
- ✚ Experience in handling Stratosphere - Troposphere Wind Profiler Radar data and also participated in Radiosonde campaigns from Advanced Center for Atmospheric Radar Research, Cochin University of Science and Technology.

Publications

- ✚ K. Nithya, M. G. Manoj, and K. Mohankumar. 2017. Effect of El Niño/La Niña on tropical easterly jet stream during Asian summer monsoon season. *Int. J. Climatol.*, 37, 4994–5004, <https://doi.org/10.1002/joc.5137>.
- ✚ K. Nithya, Ajil Kottayil and K. Mohankumar. 2019. Determining the tropopause height from 205MHz stratosphere troposphere wind profiler radar and study the factors affecting its variability during monsoon. *J. Atmos. Sol. Terr. Phys.* 182, 79-84.

Achievements

- ✚ Qualified UGC- Basic Scientific Research (BSR) Fellowship in 2013
- ✚ Second Prize in Quiz Competition as a part of National workshop on ‘Characteristics of monsoon factors responsible for contrasting features’ from 11-12 December 2014, at CUSAT
- ✚ Travel Support from World Climate Research Programme (WCRP) (World Meteorological Organization (WMO) to participate in the Joint SPARC Dynamics & Observations Workshop (QBOi, FISAPS & SATIO-TCS) at Kyoto University, Japan during 9-14 October 2017

Conferences

- ✚ **Nithya K** and K Mohanakumar. 2015. Influence of El Nino on stratospheric QBO and Tropical Easterly Jetstream during Indian summer monsoon, Proceedings of TROPMET 2015 on the topic Weather and Climate extremes.
- ✚ Anu Xavier, **Nithya K**, K Mohanakumar. 2015. Role of jet streams in modulating the southwest monsoon, Proceedings of 27th Kerala Science Congress.

- ✚ **Nithya K**, K Mohankumar and Ajil Kottayil. 2016. Impact of ENSO on the thermal and humidity structure of the UT/LS region during Indian summer monsoon, Proceedings of TROPMET 2016 on the topic Climate change and coastal vulnerability.
- ✚ **Nithya K**, Ajil Kottayil and K Mohankumar. 2017. Influence of equatorial QBO on the variability of tropical easterly jet stream over Asian summer monsoon region. Joint SPARC dynamics and observations workshop (QBOi, FISAP & SATIOTCS) held at Kyoto University, Japan.
- ✚ **Nithya K**, Ajil Kottayil and K Mohankumar. 2019. Determining the Tropopause Height from 205 MHz Stratosphere Troposphere Wind Profiler Radar and Study the Factors Affecting its Variability during Monsoon. National Space Science Symposium (NSSS) at Savithribhai Phule Pune University, Pune.
- ✚ **Nithya K**, Ajil Kottayil and K Mohankumar. 2022. On the zonal oscillation of Tropical Easterly Jet Stream during Active and Break Spells of Indian Summer Monsoon. SPARC 7th General Assembly (Online mode).

बायोडेटा

व्यक्तिगत जानकारी

नित्या के

शोध सहयोगी - I

अंतरिक्ष भौतिकी प्रयोगशाला

वि. क्रम. साराभाई अंतरिक्ष केंद्र

भारतीय अंतरिक्ष अनुसंधान संगठन (इसरो)

अंतरिक्ष विभाग, भारत सरकार

तिरुवनंतपुरम-695022, भारत

ई-मेल: nithya_k@vssc.gov.in, nithyanarayanan15@gmail.com

शैक्षणिक योग्यता

डिग्री	वर्ष	कॉलेज/विश्वविद्यालय
बीएससी (भौतिकी)	2008-2011	सरकार विक्टोरिया कॉलेज (कालीकट विश्वविद्यालय)
एमएससी (मौसम विज्ञान)	2011-2013	कोचीन विज्ञान और प्रौद्योगिकी विश्वविद्यालय
पीएच.डी. (वायुमंडलीय विज्ञान)	2021	कोचीन विज्ञान और प्रौद्योगिकी विश्वविद्यालय

थीसिस का शीर्षक: भारतीय ग्रीष्मकालीन मानसून क्षेत्र पर उष्णकटिबंधीय पूर्वी जेटस्ट्रीम और आसन्न और दूरस्थ कारकों के साथ इसका संबंध

पेशेवर अनुभव

पदनाम	अवधि	संस्थान
अनुसंधान सहयोगी	अक्टूबर 2022 - वर्तमान	अंतरिक्ष भौतिकी प्रयोगशाला, वीएसएससी, इसरो
सीनियर रिसर्च फेलो	दिसंबर 2015 - दिसंबर 2018	कोचीन विज्ञान और प्रौद्योगिकी विश्वविद्यालय
जूनियर रिसर्च फेलो	दिसंबर 2013 - दिसंबर 2015	कोचीन विज्ञान और प्रौद्योगिकी विश्वविद्यालय

प्रकाशनों

- ✚ K. Nithya, M. G. Manoj, and K. Mohankumar. 2017. Effect of El Niño/La Niña on tropical easterly jet stream during Asian summer monsoon season. *Int. J. Climatol.*, 37, 4994–5004, <https://doi.org/10.1002/joc.5137>.
- ✚ K. Nithya, Ajil Kottayil and K. Mohankumar. 2019. Determining the tropopause height from 205MHz stratosphere troposphere wind profiler radar and study the factors affecting its variability during monsoon. *J. Atmos. Sol. Terr. Phys.* 182, 79-84.

सम्मेलनों

- ✚ **Nithya K** and K Mohanakumar. 2015. Influence of El Nino on stratospheric QBO and Tropical Easterly Jetstream during Indian summer monsoon, Proceedings of TROPMET 2015 on the topic Weather and Climate extremes.
- ✚ Anu Xavier, **Nithya K**, K Mohanakumar. 2015. Role of jet streams in modulating the southwest monsoon, Proceedings of 27th Kerala Science Congress.
- ✚ **Nithya K**, K Mohankumar and Ajil Kottayil. 2016. Impact of ENSO on the thermal and humidity structure of the UT/LS region during Indian summer monsoon, Proceedings of TROPMET 2016 on the topic Climate change and coastal vulnerability.
- ✚ **Nithya K**, Ajil Kottayil and K Mohankumar. 2017. Influence of equatorial QBO on the variability of tropical easterly jet stream over Asian summer monsoon region. Joint SPARC dynamics and observations workshop (QBOi, FISAP & SATIOTCS) held at Kyoto University, Japan.
- ✚ **Nithya K**, Ajil Kottayil and K Mohankumar. 2019. Determining the Tropopause Height from 205 MHz Stratosphere Troposphere Wind Profiler Radar and Study the Factors Affecting its Variability during Monsoon. National Space Science Symposium (NSSS) at Savithribhai Phule Pune University, Pune.
- ✚ **Nithya K**, Ajil Kottayil and K Mohankumar. 2022. On the zonal oscillation of Tropical Easterly Jet Stream during Active and Break Spells of Indian Summer Monsoon. SPARC 7th General Assembly (Online mode).