

AREAS OF SPECIFIC RESEARCH INTEREST

Solar-Terrestrial Physics; Coupling processes in Equatorial Magnetosphere-Thermosphere-Ionosphere-Mesosphere system using Optical & Radio remote sensing techniques; Optical Instrumentation.

PRESENT POSITION

Research Associate at Space Physics Laboratory, VSSC, ISRO, Trivandrum (2019).

ACADEMIC QUALIFICATIONS

Course	University	Main Subject	Year
PhD	University of Kerala, Trivandrum, Kerala, India.	Physics	2019
B.Ed			2012
M.Phil			2011
M.Sc			2009

AWARDS & FELLOWSHIPS

- Junior Research Fellowship by ISRO (2012-2014).
- Senior Research Fellowship by ISRO (2014-2017).
- Travel grant from COSPAR-NCU for attending International Reference Ionosphere Workshop (COSPAR IRI CBW-2017).
- *SPD studentship award from Solar Physics Division of the American Astronomical Society, (SPD-AAS) for attending Triennial Earth-Sun Summit (TESS-2018) jointly organized by AGU and SPD-AAS-2018.*
- Travel grant from UNOOSA to attend the first ISWI School on space weather effects on GNSS at Baku, Azerbaijan-2018.
- Research Associate Fellowship by ISRO (2019-2020).

REVIEWER OF INTERNATIONAL JOURNALS

- ✓ *Advances in Space Research*
- ✓ *Journal of Geophysical Research-Space Physics*

PROFESSIONAL MEMBERSHIPS

- ✓ *American Geophysical Union (AGU).*

PUBLICATIONS

1. **Ajesh, A.**, Pant, T. K., Vineeth, C., Mridula, N., & Kumar, K. K. (2018). Vertical coupling between the mesopause region and sporadic-E layer during equatorial counter electrojet

- events–A case study. *Advances in Space Research*, 62(7), 1787-1799. <https://doi.org/10.1016/j.asr.2018.07.001>.
2. Mridula, N., Pant, T. K., & **Ajesh, A.** (2018). On the QBO modulation in the frequency of occurrence of pre noon F3 layers over the dip equatorial location of Thiruvananthapuram. *Journal of Atmospheric and Solar-Terrestrial Physics*, 179, 114-119 <https://doi.org/10.1016/j.jastp.2018.07.004>.
 3. Shreedevi, P. R., Choudhary, R. K., Yadav, S., Thampi, S., & **Ajesh, A.** (2018). Variation of the TEC at a dip equatorial station, Trivandrum and a mid latitude station, Hanle during the descending phase of the solar cycle 24 (2014–2016). *Journal of Atmospheric and Solar-Terrestrial Physics*, 179, 425-434. , <https://doi.org/10.1016/j.jastp.2018.09.010>.
 4. Sumod S. G, T. K. Pant & **Ajesh, A.** (2019) Signatures of Sudden Storm Commencement on the equatorial thermospheric dayglow, *Journal of Space Weather and Space Climate*, <https://doi.org/10.1051/swsc/2019026>.
 5. C. Vineeth, **Ajesh, A.**, T. K. Pant & J.M. Ruohoniemi, (2019) Response of Thermospheric Nightglow Emissions over the magnetic Equator to Prompt Penetration Electric Field: a Case Study *Journal of Geophysical Research: Space Physics*. <https://doi.org/10.1029/2018JA026317>.

CONFERENCES/SYMPOSIA

National

1. **Ajesh A.**, C. Vineeth and T. K. Pant, Vertical Coupling between the equatorial Mesosphere and Lower E region: Analysis using the ground based Optical and Radio Techniques (*18th National Space Science Symposium, Dibrugarh, India, 29 January -01 February 2014*).
2. **Ajesh A.**, C. Vineeth and T. K. Pant, Evidence for Coupling between the Mesopause Temperature, Sporadic E layer Base Height during Equatorial Counter Electrojet Events (*27th Kerala Science Congress 2015, Alappuzha, India, 27-29 January 2015*).
3. **Ajesh A.**, C. Vineeth and T. K. Pant, Evidence for the Role of Atmospheric Waves in Seeding the Equatorial Spread F (*NSSSM 2015, Changanacherry, India, 11-13 March 2015*).
4. **Ajesh A.**, C. Vineeth and T. K. Pant, Role of Atmospheric Waves in Seeding the Equatorial Spread F: First results. (*52nd Annual Convention of Indian Geophysical Union, Goa. India, 3-5 November 2015*).
5. **Ajesh A.**, C. Vineeth, T. K. Pant, M. M. Hossain, Anumod P G, Satheesh Kumar B. and Pradeep Kumar P., Development of a Portable Nighttime Photometer and its inter-comparison with collocated All Sky Imager observations. (*19th National Space Science Symposium 2016. SPL, VSSC, Trivandrum, India, 09-12 February 2016*).

6. **Ajesh A.**, C. Vineeth and T. K. Pant, On the mesospheric dynamics in seeding the Equatorial Spread F: evidence for the role played by waves of lower atmospheric origin, (*19th National Space Science Symposium 2016. SPL, VSSC, Trivandrum, India, 09-12 February 2016*).
7. **Ajesh A.**, C. Vineeth and T. K. Pant, Response of equatorial nighttime thermosphere ionosphere system to penetrating interplanetary electric field: a case study. (*27th Kerala Science Congress 2015, Thiruvalla, India, 28-30 January 2017*).
8. **Ajesh A.**, Shreedevi P. R., T. K. Pant, C. Vineeth and R. K. Choudhary, Response of Equatorial Thermosphere-Ionosphere System to Midnight Temperature Maximum: A study using optical and radio techniques (*20th National Space Science Symposium 2019. at Savitribai Phule Pune University (SPPU), Pune, India, 29-31 January 2019*).
9. **Ajesh A.**, and T. K. Pant, Impact of Penetrating Electric Fields to the Equatorial Thermosphere-Ionosphere System, (*31st Kerala Science Congress 2019. at Fatima Mata National College, Kollam, India, 02-03 February 2019*).
10. **Ajesh A.**, T. K. Pant and C. Vineeth, On the role of equatorial neutral dynamics in controlling the centroid of O¹D 630.0 nm emission during quiet and disturbed conditions, (*Young Scholar's Congress 2019, at University of Kerala, Thiruvananthapuram, India, 16-17 March 2019*)

[International](#)

1. **Ajesh A.**, C. Vineeth and T. K. Pant, Equatorial Counter Electrojet and E-Region Base Height:-An Investigation Using Daytime Optical and Radio Techniques. (*2nd URSI RCRS, JNU, New Delhi, India, 16-19 November 2015*).
 2. **Ajesh A.**, T. K. Pant and C. Vineeth, On the variability of centroid of nocturnal O¹D 630.0 nm emission: an investigation (*International Reference Ionosphere Workshop (COSPAR IRI CBW-2017), National Central University, Taoyuan, Taiwan, 13-17 November 2017*).
 3. **Ajesh A.**, C. Vineeth, T. K. Pant and K.K. Kumar, Vertical Coupling between Sporadic-E Layer and Mesopause Region: A Case Study during Counter Electrojet Events, (*International Reference Ionosphere Workshop (COSPAR IRI CBW-2017), National Central University, Taoyuan, Taiwan, 13-17 November 2017*).
 4. **Ajesh A.**, T. K. Pant, P. R. Prasad and C. Vineeth, On the Response of Equatorial Nighttime Thermosphere Ionosphere System to Penetrating Electric Field: a case study (*SCOSTEP 14th Quadrennial Solar-Terrestrial Physics Symposium (STP14), York University, Toronto, Canada, 9-13 July 2018*).
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