

SCIENTIFIC RECOGNITION

- **Participated as a Senior Scientist in Indian Antarctic Scientific Expedition (2002).**
- Associated with National/International research projects awarded by DST/DOD/UGC GOVT of India.
- Reviewer of various International/National Journals including Elsevier Journals
- Presented many research papers in various International conferences in different countries.
- Awarded by travel grant award by SCAR (Scientific committee on Antarctic Research) for attending SCAR meeting on 17-19 June 2019 at the Skyway Mont Blanc in Courmayeur, Italy to present paper in Astronomy & Astrophysics from Antarctica (AAA).
- Attended and delivered Conference chair talk in International E-Conference on Synthesis, Characterization & Applications of Emerging Materials with special reference to Sustainable Technologies organized by Jabalpur Engineering college sponsored by TEQIP and supported by Springer during 22/02/2021 to 24/02/2021

International Visits (Contributed Talks): 17

- Antarctica, South Africa, Boston (USA), London (U.K.), Frankfurt (Germany), Paris, Brisbane (Australia), Kyoto (Japan), Singapore, Mauritius, Malaysia, Moscow (Russia), Tokyo (Japan), Bandung (Indonesia), Orford, Montreal, Canada, **Istanbul, Turkey**
- 1 **Antarctica** to conduct **Space Weather Research** from October 2001 to March 2002, sponsored by **GOI**.
 - 2 **Cape town (South Africa)** for research work in **Plasma Research Institute** September 2002.
 - 3 **Mauritius** for presenting research paper in **International Congress on Environmental Research (ICER-10)** held at University of Mauritius, Reduit, Mauritius from 16-18 September 2010.
 - 4 **Malaysia** for presenting research paper in **International Conference on Space Science and Communication (Icon Space 2011)** held in Penang, Malaysia during 12-13 July 2011.
 - 5 **Paris (France)** for presenting research paper in **International Conference on Applied Physics** held at Paris 14-16 Nov 2011.
 - 6 **Brisbane (Australia)** for presenting research paper in **International Seminar AOGS 2013** from 23 -26 June 2013.
 - 7 **Singapore** for research work in **Singapore Earth Observatory** in 2013.
 - 8 **Boston, Massachusetts, USA** for presenting research paper in **XXVI Conference on Computational Physics, CCP2014**, from August 10 to 14, 2014.
 - 9 **Visited Frankfurt University of Applied Sciences Frankfurt, Germany** from 14- 19 August 2014.
 - 10 **Visited London (U.K.) for presenting two research papers in** International conference **Physics of Emergent Behaviour II** held at Science Museum, London, UK from 9 – 10 July 2015,
 - 11 **Visited Moscow (Russia) for presenting paper in International conference "All wave Astronomy. Shklovsky-100"**, held in Moscow from 20 to 22 June 2016 organized by Astro Space Center of P. N. Lebedev **Physical Institute and Space Research Institute of RAS and also visited Moscow State University**

- 12 Visited Beijing, China for presenting research paper in **13th Annual Meeting and Geosciences World Community Exhibition**, 31 Jul to 05 Aug 2016.
- 13 Visited **Kyoto University Japan**, for presenting research paper in **International Conference World Data System Asia-Oceania Conference 2017** held at **Kyoto University Japan**, during September 26-29, 2017.
- 14 Visited **National Institute of Polar Research (NIPR)** for presenting research paper in **The Eighth Symposium on Polar Science held at the National Institute of Polar Research (NIPR), Tokyo, Japan**, from 4 to 8 December 2017.
- 15 Delivered Contributed talk at **Space Science Centre, National Institute of Aeronautics and Space (LAPAN), Bandung, Indonesia** for presenting research paper in the 5th AOSWA Workshop held during 19/09/2018 to 21/09/ 2018.
- 16 Visited **Canton Orford, Qc, Montreal** for presenting research paper in **The Seventh International Space Climate Symposium” held at Hotel Estrimont Suites, Canton Orford, Qc, Montreal organized by Department of Physics, University of Montreal, QC, Canada** Scheduled from 8 to 11 July 2019.
- 17 Visited **Istanbul, Turkey** for presenting research paper in prestigious International Conference **Mediterranean Geosciences Union (MedGU) at Istanbul Technical University** during 27-30 November 2023

LIST OF DOCTORAL THESIS SUPERVISION:

Ph.D. Awarded -17

- 1 **Bhupendra Malvi**: Diagnostic study of physical process affecting Sun-Earth environment using ground and space borne techniques, (*Awarded 2024*)
- 2 **Rafi Ahmead**: Investigation of Ionospheric response to high energetic solar transients using Ionosonde and GPS observations (*Awarded 2023*)
- 3 **Mahesh Parwani**: Investigation of short- and long-term Space Weather effects on Earth's Ionosphere by using Ground and Satellite based measurements (*Awarded 2022*)
- 4 **Shivangi Bhardwaj**: Geomagnetic and ionospheric response to solar eruptive phenomenon (*Awarded June 2019*)
- 5 **Roshni Atulkar**: Study of Ionospheric variability using Satellite and ground based observation (*Awarded July 2018*)
- 6 **Harleen Kaur**: Study and Investigation of the seismic impact on F2 region of the Ionosphere (*Awarded Nov 2017*)
- 7 **Rajesh Sharma**: A study on hydrometeorological for severe drought monitoring system using data mining technique (*Awarded May 2017*)
- 8 **Azad Ahmad Mansoori**: Investigation of Global Positioning System (GPS) performances under the influence of Ionosphere (*Awarded May 2015*)
- 9 **Mrs. Richa Khandelwal**: Performance and Analysis of Lattice Vector Quantization (*Awarded March 2015*)
- 10 **Sharad Chandra Tripathi**: Space Weather: The Sun and Earth perspective – event and their Geoeffective (*Awarded February 2015*)
- 11 **Purushottam Bhawre**: Study of space weather impact on polar ionosphere and its coupling with the low latitudinal ionosphere (*Awarded October 2013*)
- 12 **Parvaiz Ahmad Khan**: Space Weather: Effects of solar disturbances on the atmosphere of Earth and Mars (*Awarded June 2013*)
- 13 **Prakash Khatarkar**: Investigation of the Ionospheric Parameters by GPS receiver and digital Ionosonde (*Awarded May 2013*)

- 14 **Mili Trivedi:** Analysis of computational capacity of Ad-hoc network (*Awarded December 2011*)
- 15 **Shweta Mukherjee:** Study of Ionospheric Irregularities in the Crest of Equatorial Anomaly Region (*Awarded April 2011*)
- 16 **Soumi Bhattacharya:** Global Positioning System (GPS) Ionospheric Measurements: parameters and their Analysis (*Awarded 2010*)
- 17 **Rajesh Tiwari:** Study of Ionospheric effects on Satellite Communication and Navigation with the help of Global Positioning System (*Awarded 2010*)

THESIS EVALUATION: 25

RESEARCH PROJECTS UNDERTAKEN

International Project: 03

1. Space Weather Program at Antarctica

- **Sponsor:** National Centre for Antarctic and Ocean Research (NCAOR), Goa, Department of Ocean Development, Govt. of India
- **Project Code:** NCAOR / DOD / 9 / 11 (E) 2000
- **Duration:** 2006-2009
- **Role:** Co-PI

2. Coordinated Study of VLF Phenomenon at Antarctica

- **Sponsor:** Department of Ocean Development, Govt. of India
- **Duration:** 2002-2005
- **Role:** Co-PI

3. Latitudinal Studies of Ionospheric Scintillation and TEC Investigation

- **Focus:** Geomagnetic phenomena: storm, sub-storm, and micro pulsation using Indian and Russian data
- **Sponsor:** DST, Govt. of India (ILTP Programme)
- **Project Code:** ILTP/INT/ILTP/B 2.29(NP-29)
- **Year:** 2002
- **Role:** Co-PI

National Projects: 03

1. Investigation of Space Weather Effects on Earth's Ionosphere Using GPS-Based Measurements

- **Sponsor:** NITTTR
- **Project Code:** CFP2022P3/PI
- **Approval Date:** 25/01/2023
- **Role:** PI

2. Pulsed Wire System for Undulator Measurement

- **Sponsor:** NITTTR
- **Project Code:** CFP2022O5/CoPI
- **Approval Date:** 25/01/2023
- **Role:** Co-PI

3. Studies on Ionospheric Variabilities

- **Sponsor:** University Grants Commission (UGC)
- **Project Code:** 4-32(2/2001)(MRP/CRO)
- **Year:** 2001
- **Role:** PI

Projects for Educational Institutes

- 1 National Vocational Educational Qualification and Certification Frame work (2003-04).
- 2 MHRD-AICTE faculty Development Project- co-coordinator for winter School programs.
- 3 Video programs production for Open and Distance Education (Bhoj University, Bhopal).
- 4 Developed and edited 14 modules for vocational project.
- 5 Developed higher order module on IPR for swyam for senior teachers of technical institutions as coordinator.

Books Authored: 07

1. Antarctica: A Planet of the Planet (2013)

- **Author:** P.K. Purohit
- **Publisher:** Scholars Press, Germany
- **ISBN:** 978-3-639-51212-0

2. Ionospheric Study of Equatorial Anomaly Station (2012)

- **Authors:** Shweta Mukherjee, P.K. Purohit, A.K. Gwal
- **Publisher:** Academic Publishing, Germany
- **ISBN:** 978-3-8433-5566-7

3. Antarctic: Ek Rahashymay Mahadeep

- **Author:** P.K. Purohit
- **Publisher:** Indra Publishing House, Bhopal
- **ISBN:** 978-93-80834-09-2

4. Antarctic Where the Silence Speaks

- **Author:** P.K. Purohit
- **Publisher:** Indra Publishing House, Bhopal

- **ISBN:** 81-89107-03-08
5. **Antarctic: Aakarshan Kyon-----? (2005)**
 - **Author:** P.K. Purohit
 - **Publisher:** Indra Publishing House, Bhopal
 - **ISBN:** 81-89107-143
 6. **Antarctic: Vigyan evam Chunotiyen (Science and Challenges) (2003)**
 - **Authors:** P.K. Purohit and A.K. Gwal
 - **Publisher:** M.P. Hindi Granth Academy
 2. Number of Training Program Conducted :-More than two hundred

CONFERENCE / SYMPOSIUM / WORKSHOP / PROGRAMMES (ATTENDED):

1. Global TEC Variation during Intense Geomagnetic Storm of the 24th Solar Cycle," at the **International Conference on Novel Materials & Applications (ICNMA-2025)** sponsored by the Directorate of Technical Education, Government of Madhya Pradesh, and organized by the Department of Applied Physics, Jabalpur Engineering College, Jabalpur (M.P.), India, from 5th to 6th February 2025.
2. **International Symposium on the 40th Anniversary of the MU Radar** titled "Global Vertical Total Electron Content (VTEC) variation during an intense geomagnetic storm on June 23, 2015," organized by Research Institute for Sustainable Humanosphere (RISH), Kyoto University, Japan on 19 November 2024.
3. **Regional Conference on Radio Science (URSI-RCRS) 2024** titled "Intense Geomagnetic Storm effect on the Ionosphere using Ionosonde observation over the 24th Solar Cycle", Bhupendra Malvi., Rafi Ahmad, and Pramod Purohit GEHU, Bhimtal, Uttarakhand, India, from 22nd to 25th October 2024.
4. **European Geosciences Union (EGU), General Assembly 2024** "Global Ionospheric responses in both hemisphere during the 2015 St. Patrick's Day storm" (EGU 24 -509) Bhupendra Malvi and P. K. Purohit, at Vienna, Austria 16 April, 2024.
5. **International Conference Mediterranean Geosciences Union (MedGU)** "A comparative study of observed and model values of ionosphere foF2 and hmF2 at two Hemisphere during the decline phase of the 24th solar cycle" Pramod Purohit, Rafi Ahmad and Bhupendra Malvi, held at Istanbul Technical University, Turkey during 27-30 November 2023.
6. **American Geophysical Union (AGU 23)** "Global Ionospheric Responses to the Second Most Significant Geomagnetic Storm of the 24th Solar Cycle" Bhupendra Malvi and P. K. Purohit (poster presentation), George R. Moscone Convention Center in San Francisco, CA, USA, Monday, 11 December 2023.
7. **XXXIst General Assembly International Astronomical Union IAUGA 2022** "Study of Ionospheric during the intense geomagnetic storm in 24th solar cycle over different latitudes and longitudes" Bhupendra Malvi, Sharad C Tripathi and P.K. Purohit (contributed talk), BEXCO, Busan, Republic of Korea, August 02-11, 2022.
8. **27th International Conference of International Academy Of Physical Sciences (Coniaps Xxvii) On "Recent Advances In Earth Sciences"** Organized By Institute

Of Earth And Environmental Sciences Dr. Rammanohar Lohia Avadh University, Ayodhya, October 26-28, 2021.

9. **International Materials Science Conference – 2021** organized by School of Physical Sciences, Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon, March 18-20, 2021.
10. **International E-Conference on Synthesis, Characterization & Applications of Emerging Materials with special reference to Sustainable Technologies** (Conference chair talk delivered) organized by Jabalpur Engineering College sponsored by TEQIP and supported by Springer, February 22-24, 2021.
11. **26th International conference of International Academy of Physical Science (CONIAPSXXVI) advances in Applied Physics & Earth Science** organized by Manipal University Jaipur, December 18-20, 2020.
12. **International conference on “Recants Trends in Analysis and Optimization (ICRTAO)-2020** at NITTTR, Bhopal, November 9-11, 2020.
13. **Online E-hindi conference** jointly organized by NCPOR and Ministry of education Govt of India, September 14-15, 2020.
14. **Virtual International conference on: Emerging trends in online learning and global challenges in higher education framework post covid19.** organized by Career college Bhopal sponsored by IEEE, spoken tutorial IIT Mumbai, June 17-18, 2020.
15. **Seventh International Space Climate Symposium”** held at Hotel Estrimont Suites, Canton Oxford, Qc, Montreal organized by Department of Physics, University of Montreal, QC, Canada, July 8-11, 2019.
16. **5th AOSWA Workshop** held at Space Science Centre, National Institute of Aeronautics and Space (LAPAN), Bandung, Indonesia, August 19, 2018 to September 21, 2018.
17. **International Conference, the Eighth Symposium on Polar Science** held at the National Institute of Polar Research (NIPR), Tokyo, Japan, December 4-8, 2017.
18. **International Conference- World Data System Asia-Oceania Conference 2017** held at Kyoto University, Japan, September 26-29, 2017.
19. **13th Annual Meeting and Geosciences World Community Exhibition**, Beijing, China, July 31 to August 05, 2016.
20. **International conference “All-wave Astronomy. Shklovsky-100”**, Moscow, Russia, organized by Space Research Institute of Russia, June 20-22, 2016.
21. **International conference on High power coherent radiation generation & its interaction with matter** held at SATI, Vidisha, Madhya Pradesh, February 12-14, 2016.
22. **International conference Physics of Emergent Behavior II** held at Science Museum, London, UK, organized by Institute of Physics, July 9-10, 2015.
23. **XXVI Conference on Computational Physics, CCP2014**, Boston, Massachusetts, USA, August 10-14, 2014.
24. **National seminar on “Role of Media in promotion of Rajbhasha”** held at NITTTR Bhopal, September 21-22, 2013.
25. **National conference on New Trends in Physics and Materials Science** held at C.S.A. Govt. P.G. College Sehore sponsored by U.G.C., November 25-26, 2013.
26. **International Seminar AOGS 2013** held at Brisbane Australia, June 23-28, 2013.
27. **30 TVET skills for enhancing youth employability** organized by NITTTR, Bhopal and CPSC Manila held at NITTTR Bhopal, December 19, 2013.
28. **National conference on Advances in pharmacy and chemical sciences** held at NITTTR, Bhopal. (Year not specified, assumed around 2011-2012 based on surrounding entries).

29. **International conference on wind energy** held at NITTTR, Bhopal. (Year not specified, assumed around 2011-2012 based on surrounding entries).
30. **International Conference on Wind Energy: Trends and Issues 2011** held at NITTTR, Bhopal, October 12-14, 2011.
31. **International Conference on Applied Physics** held at Paris, November 14-16, 2011.
32. **International Conference on Space Science and Communication (Icon Space 2011)** held in Penang, Malaysia, July 12-13, 2011.
33. **International Seminar on “Washington Accord-India’s Preparedness”** held at NITTTR, Bhopal, January 6-7, 2011.
34. **National Seminar on “Building Quality Assurance in TVET: Trends and Perspectives”** held at NITTTR, Bhopal sponsored by CPSC, Manila, December 23, 2010.
35. **International conference on concurrent Techno & Enviro search** held at Bhopal, December 4-5, 2010.
36. **International Congress on Environmental Research (ICER-10)** held at University of Mauritius, Reduit, Mauritius, September 16-18, 2010.
37. **National Conference on Recent Advances in Engineering Physics** Sponsored by AICTE held at LNCT, Bhopal, March 26-27, 2010.
38. **Financial Decision making** held at NITTTR Bhopal, May 3-7, 2010.
39. **Rastriya Raj bhasha Sammelan** held at Daman, March 28, 2010.
40. **Computer Technology & applications** held at NITTTR Bhopal, October 5-9, 2009.
41. **DAE Solid State Physics Symposium** sponsored by Department of Atomic Energy, Govt of India held at Department of Physics & Electronics BU, Bhopal, December 26-30, 2006.
42. **Induction training programme** held at NITTTR Bhopal, June 7-18, 2004.
43. **12th National Space Science Symposium (NSSS-2002)**, BU Bhopal, February 25-28, 2002.
44. **Third Winter School on Indian MST RADAR** held at S.V. University, Tirupati, March 5-9, 2001.
45. **International workshop on-“Coordinated study of very low frequency phenomenon: Global approach”** BU. Bhopal, November 25-27, 1999.
46. **Refresher course on contemporary Physics** held at Institute of Physics and Electronics BU Bhopal, July 21 to August 10, 1999.
47. **Workshop on Total Solar Eclipse** held at RSC, Bhopal Sponsored by DST & MPCST, July 4, 1999.
48. **National Seminar on “Recent Trends in Space Physics (1997)”** held at Govt.P.G.College Sehore, February 13-14, 1995. (Note: The year 1995 here contradicts the 1997 in the title; assuming 1997 is the correct year for the symposium itself, the dates might be a typo, or the conference was held early in the year prior to the publication year).
49. **Workshop on “Sensors & Transducers”** sponsored by Western Regional Instrumentation Centre, University of Bombay held at USIC BU, Bhopal, September 11-14, 1995.
50. **Plasma Science and Technology (Plasma –95)** held at BHU Varanasi, October 16-19, 1995.
51. **Plasma Science and Technology (Plasma –96)** held at BU Bhopal, October 28-31, 1996. (Moved to proper chronological position based on date).
52. **National Space Science Symposium (NSSS-96)** Osmania University Hyderabad, February 6-10, 1996. (Moved to proper chronological position based on date).

53. **National Space Science Symposium (NSSS-94)**, held at Vikram Sarabhai Space Center, Thiruanatpuram, 1994.