

Alok Kumar Pandey, PhD

Rutherford Fellow | Newton-Bhabha Fellow | Inspire Fellow

Assistant Professor, Department of Environmental Sciences,

Deshbandhu College, University of Delhi, Kalkaji, New Delhi – 110019, India

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Portfolio: <https://sites.google.com/view/akpandey/>

Atmospheric scientist specialising in Earth system modelling, satellite remote sensing, and analysis of atmospheric composition. My research integrates chemistry–climate modelling (UKESM/UKCA, GEOS-Chem) with multi-sensor satellite observations (OMI, IASI, TROPOMI) to quantify emissions, evaluate model performance, and understand air quality–climate feedbacks.

Core Expertise

- ✓ Atmospheric data analytics
- ✓ Earth system and chemistry–climate modelling
- ✓ Satellite retrieval evaluation and data–model fusion
- ✓ Chemistry–climate interactions and regional feedback processes
- ✓ High-performance computing for Earth System simulations
- ✓ Urban climate

Positions held (Research/Professional Experiences)

Deshbandhu College, University of Delhi Assistant Professor, Environmental Sciences	New Delhi, India July 2023 – Present
Lancaster University Senior Research Associate	Lancaster, UK July 2022 – July 2023
University of Leeds Research Fellow	Leeds, UK November 2021 – June 2022
Sikkim University Research Associate	Gangtok, India July 2021 – November 2021
University of Leicester Research Consultant	Leicester, UK May 2020 – January 2021
University of Edinburgh Commonwealth Rutherford Fellow, School of Geosciences	Edinburgh, UK March 2018 – February 2020
Central University of Haryana Assistant Professor, Department of Environmental Sciences	Mahendargarh, India April 2017 – March 2018

Education

Jawaharlal Nehru University PhD, Environment and Atmospheric Sciences Thesis Title: <i>Satellite Derived Spatio-Temporal trends of Air Quality over Indo-Gangetic Plain</i> Funded by Department of Science & Technology (DST) – INSPIRE Fellow Scholarship Programme	New Delhi, India Thesis defense: February 2017
Visiting Research Student of the University of Edinburgh, UK Funded by India-DST and UK-British Council under Newton-Bhabha Programme	(January – June 2016)
Jawaharlal Nehru University MPhil, Environment and Atmospheric Sciences (Course work only)	New Delhi, India 2011
Patna University Master of Science – Environmental Science and Management	Patna, India <i>University Topper</i> , 2008-2010

Academic Awards / Scholarships

- ❖ Commonwealth Rutherford Fellowship awarded by the Commonwealth Scholarship Commission (CSC), United Kingdom
- ❖ Newton – Bhabha PhD Programme awarded by the Department of Science & Technology (DST), India and British Council, United Kingdom
- ❖ INSPIRE Fellow Scholarship of the Department of Science & Technology (DST), India
- ❖ Qualified UGC-NET Examination in Environmental Sciences
- ❖ Qualified ARS-NET Examination in Environmental Sciences
- ❖ Qualified GATE Examination in Life Sciences
- ❖ Qualified CSIR-UGC NET & Junior Research Fellowship in Earth, Atmospheric, Ocean & Planetary Sciences (All India Rank – 16)

Technical Skills

Atmospheric Modelling Skills

- ✚ Running global atmospheric chemistry models (UKESM, UKCA v11.0)
- ✚ Running Met Office NERC Cloud model (MONC) coupled with CASIM (Cloud-Aerosol Interacting Microphysics) and SOCRATES (Suite of Community Radiative Transfer codes)
- ✚ Modifying model subroutines and altering the setup of the model
- ✚ Processing/analysing large model, satellite and observational datasets in various file formats (.nc, .hdf etc.)

Computational Skills

- Proficiency in using Unix/Linux and Windows operating systems
- Experience in using the super computational facility – JASMIN, ARCHER
- Experience with version control / Git

Data Analysis Skills

- Python, Matlab for data analysis and visualization
- CDO, NCL, NCO
- Remote Sensing and GIS Software – ArcGIS, ENVI, ERDAS

Research Projects

Sponsored Research Project – Commonwealth Scholarship Commission, United Kingdom

Title: Evaluating the UK Earth System Model (UKESM) over the Indian Subcontinent Region

Amount: £51,000

Duration: ~Two Years

Publication on Sponsored Research Project: Pandey, A. K., Stevenson, D. S., Zhao, A., Pope, R. J., Hossaini, R., Kumar, K., and Chipperfield, M. P.: Evaluating tropospheric nitrogen dioxide in UKCA using OMI satellite retrievals over south and east Asia, Atmos. Chem. Phys., 25, 4785–4802, 2025, <https://doi.org/10.5194/acp-25-4785-2025>

Consultancy Research Projects

Consultancy Research Project – University of Leicester, United Kingdom

Title: Assessment of UK ammonia emissions with IASI and GEOS-Chem

Amount: £19,500

Duration: < One Year

Publication on Consultancy Research Project: Marais, E. A., Pandey, A. K., Van Damme, M., Clarisse, L., Coheur, P.-F., Shephard, M. W., Cady-Pereira, K. E., Misselbrook, T., Zhu, L., Luo, G., Yu, F.: UK ammonia emissions estimated with satellite observations and GEOS-Chem. Journal of Geophysical Research: Atmospheres, 126, 2021, <https://doi.org/10.1029/2021JD035237>

Administrative Experiences

- ✓ Head of Department / Teacher-In-Charge, Department of Environmental Sciences, Deshbandhu College, University of Delhi, Kalkaji, New Delhi, India October 2025 – Present
- ✓ ISRO'S IIRS EDUSAT Coordinator @ Deshbandhu College, University of Delhi August 2025 – Present
- ✓ Member, Union Advisory Committee @ Deshbandhu College, University of Delhi 2025 – 2026
- ✓ ISRO'S IIRS EDUSAT Coordinator @ Central University of Haryana June 2017 – March 2018

Thesis Supervision

(a) PhD students – Ongoing

S. No	Name	Thesis Title	Remarks
1	Ms Ankita Roy	Chemical Speciation and Mass-Size Distribution of Aerosols in the High Altitude Yumthang Valley, Sikkim Himalaya	Under joint supervision with Dr Rakesh Kumar Ranjan, Department of Geology, Sikkim University

(b) MSc Dissertation supervised

S. No	Name	Year	Dissertation Title	Remarks
2	Mr Maninder Kumar	2018	Temporal variation of black carbon over urban environment, New Delhi	@ Central University of Haryana, Mahendargarh
1	Mr Shubham Kumar	2018	Spatio-temporal variability analysis of evapotranspiration in Haryana, India: a geospatial approach	@ Central University of Haryana, Mahendargarh

Publication on the student dissertation work: Kumar, S., Kumar, R., Kumar, M. Pandey, A. K., Srivastava, P. K., Kumar, S., Mishra, V. N., Arya, V. S., Spatio-temporal variability analysis of evapotranspiration, water use efficiency and net primary productivity in the semi-arid region of Aravalli and Siwalik range, India. *Environ Dev Sustain* (2023). <https://doi.org/10.1007/s10668-023-04228-3>

Plenary/Invited Speaker/Talk

- Invited Lecture in a workshop/training on “Fundamentals of Atmospheric Science and Climate Change” at D A V PG College, Siwan – Jai Prakash University (Siwan, April 11, 2023)
- Invited Talk on “Climate Change effects in the light of IPCC Sixth Assessment Report” in an international conference organized by Kalinga University on Climate Change, Sustainable Development & Smart Agriculture (Naya Raipur, April 6 -7, 2023)

Publications

| Total Citation: > 300 |

| H-Index – 10 |

| i10-index – 10 |

List of Publications

- 21) Wang, X., Hou, X., Zhao, T., Zhang, Y., Pandey, A., and Jin, Y.: Characteristics and identification of stratospheric ozone slanted intrusion into the troposphere in the BTH region, *Atmospheric Research*, 329,108497, 2026, <https://doi.org/10.1016/j.atmosres.2025.108497>
- 20) Pandey, A. K., Stevenson, D. S., Zhao, A., Pope, R. J., Hossaini, R., Kumar, K., and Chipperfield, M. P.: Evaluating tropospheric nitrogen dioxide in UKCA using OMI satellite retrievals over south and east Asia, *Atmospheric Chemistry and Physics*, 25 (9), 4785 – 4802, 2025, <https://doi.org/10.5194/acp-25-4785-2025>
- 19) Kumar, P., Garg, A., Sharma, K., Nadeem, U., Sarma, K., Gupta, N. C., Kumar, A., Pandey, A. K.: Seasonal and Spatial Variations in Particulate Matter, Black Carbon and Metals in Delhi, India's Megacity, *Urban Science*, 8(3), 101, 2024, <https://doi.org/10.3390/urbansci8030101>
- 18) Singh, G., Ojha, P.K., Sharma, S.K. Kumari, P., Pandey, A. K., Mishra, A.K., Kumar, K., Implications of urbanization on the seasonal dynamics and long-term trends in the thermal climate of a city in the Himalayan foothills of India, *Journal of Geovisualization and Spatial Analysis*, 8, 23, 2024

- 17) Kumar, S., Kumar, R., Kumar, M., Pandey, A. K., Srivastava, P. K., Kumar, S., Arya, V. S., Spatio-temporal variability analysis of evapotranspiration, water use efficiency and net primary productivity in the semi-arid region of Aravalli and Siwalik range, India, *Environment, Development and Sustainability*, 2023
- 16) Sharma K., Ranjan R. K., Lohar S., Sharma J., Rajak R., Gupta A., Prakash A., Pandey A. K., “Black carbon concentration during spring season at high altitude urban centre in Eastern Himalayan region of India”, *Asian Journal of Atmospheric Environment*, 16(1), 2021149, 2022
- 15) Marais, E. A., Pandey, A. K., Van Damme, M., Clarisse, L., Coheur, P.-F., Shephard, M. W., Cady-Pereira, K. E., Misselbrook, T., Zhu, L., Luo, G., Yu, F.: UK ammonia emissions estimated with satellite observations and GEOS-Chem. *Journal of Geophysical Research: Atmospheres*, 126, e2021JD035237, 2021
- 14) Kumar, R. P., Kashyap, P., Kumar, R., Pandey, A. K., Kumar, A. and Kumar, K.: “Cancer and non-cancer health risk assessment associated with exposure to non-methane hydrocarbons among roadside vendors in Delhi, India”, *Human and Ecological Risk Assessment: An International Journal*, 26 (5), 1285-1299, 2020
- 13) Kumari, P., Bhardwaj, P., Pandey, A. K., Jain, V. K. and Kumar, K.: “Seasonal variation in spectral global and direct solar irradiances over a megacity Delhi”, *SPIE Remote Sensing Technologies and Applications in Urban Environments III*, 107930A, 2018
- 12) Priyadarshini, N., Kumari R., Kumar A., Pandey A. K.: “Diversity and Seasonal Variation of Spiders Community in a Tropical Region: A Case Study in Saran, Bihar, India” *Ecology, Environment and Conservation*, 24(1), 263–269, 2018
- 11) Bhardwaj, P., Pandey, A. K., Kumar, K. and Jain, V. K.: “Spatial variation of Aerosol Optical Depth and Solar Irradiance over Delhi -NCR during summer season”, *Current World Environment*, 12(2), 389–395, 2017
- 10) Bhardwaj, P., Pandey, A. K., Kumar, K. and Jain, V. K.: “Seasonal variability of aerosols and their characteristics in urban and rural locations of Delhi-NCR”, *SPIE Remote Sensing Technologies and Applications in Urban Environments II*, 10431, 2017
- 9) Kumar, R., Pandey, A., Kumar, R., Kashyap, P. and Kumar, K.: “Assessment of Source Profile of Nonmethane Hydrocarbon in the Ambient Air of Metro City Delhi, India”, *Current World Environment*, 12(2), 326–338, 2017
- 8) Bhardwaj, P., Singh, B. P. and Pandey, A. K.: “Characterization and Morphological Analysis of Summer and Wintertime PM_{2.5} Aerosols Over Urban- Rural Locations in Delhi-NCR”, *International Journal of Applied Environmental Sciences*, 12(5), 1009–1030, 2017
- 7) Kumar, R. P., Pandey, A. K., and Kumar, K.: “A Review on the Atmospheric Non-Methane Hydrocarbons (NMCHs) Study in India”, *Current World Environment*, 12(2), 278–287, 2017
- 6) Pandey, A. K., Rawal R. S., Gairola S., Bhatt I. D., Kumar R. P., Priyadarshini N., and Kumar A.: “Protection from Anthropogenic Disturbances Contributed to the Recovery of Vegetation in the Kumaon Himalaya: A Case Study” *International Journal of Geology, Earth & Environmental Sciences*, 7(2), 39–50, 2017
- 5) Pandey, A. K., Mishra, A. K., Kumar, R., Berwal, S., Devadas, R., Huete, A. and Kumar, K.: “CO variability and its association with household cooking fuels consumption over the Indo-Gangetic Plains”, *Environmental Pollution*, 222, 83–93, 2017
- 4) Berwal, S., Kumar, D., Pandey, A. K., Singh, V. P., Kumar, R. and Kumar, K.: “Dynamics of thermal inertia over highly urban city: a case study of Delhi”, *SPIE Remote Sensing Technologies and Applications in Urban Environments*, 10008, 100080E, 2016
- 3) Pandey, A. K., Kumar, R. P. and Kumar, K.: “Satellite and ground based seasonal variability of NO₂ and SO₂ over New Delhi, India”, *SPIE Remote Sensing of Clouds and the Atmosphere XX*, 9640, 96400U, 2015
- 2) Priyadarshini, N., Kumari R., Pathak R. N., and Pandey A. K.: “Biodiversity and Community Structure of Spiders in Saran, Part of Indo-Gangetic Plain, India” *Asian Journal of Conservation Biology*, 4(2), 121–129, 2015
- 1) Pandey, A. K., Singh, S., Berwal, S., Kumar, D., Pandey, P., Prakash, A., Lodhi, N., Maithani, S., Jain, V. K. and Kumar, K.: “Spatio - temporal variations of urban heat island over Delhi”, *Urban Climate*, 10, 119–133, 2014

✚ Editor

- I. Journal – Remote Sensing (Impact Factor: 5.349)
Special Issue – Air Quality Mapping via Satellite Remote Sensing
Link: https://www.mdpi.com/journal/remotesensing/special_issues/5Y26466F19
- II. Journal – Scientific Reviews (Scientific Reports Collection)
Spatial Issue – Air pollution and greenhouse gas mitigation
Link: <https://www.nature.com/collections/jccheidgbg>

✚ Editorial Board Member

Journal – Scientific Reports

❖ Reviewer

Remote sensing of Environment	Environmental International	Atmosphere
Geo-Spatial Information Science	Remote Sensing	Discover Applied Sciences
Pure and Applied Geophysics	Air	Water, Air & Soil Pollution
Frontiers in Earth Science	Natural Hazards	African Geographical Review
Sustainability	Toxicological & Environmental Chemistry	
International journal of environmental science and technology		
International Journal of Environmental Research and Public Health		

Datasets

- ✓ Satellite-derived estimates of ammonia emissions in the UK: Dataset posted on 03.09.2021, 13:16 by Eloise Marais, **Alok K. Pandey**, Martin Van Damme, Lieven Clarisse, Pierre-François Coheur, Karen Cady-Pereira, Tom Misselbrook, Lei Zhu, Gan Luo, Fangqun Yu, “UK monthly mean ammonia emissions estimated using satellite observations and the GEOS-Chem chemical transport model for March to September at ~10 km spatial resolution”, <https://doi.org/10.5522/04/14566635>, 2021
- ✓ **Pandey, Alok**; Stevenson, David. Data Supporting the Manuscript "Evaluating tropospheric nitrogen dioxide in UKCA using OMI satellite retrievals over South and East Asia", [dataset]. University of Edinburgh. School of GeoSciences, <https://doi.org/10.7488/ds/7885>, 2025

Teaching Experience and Courses Offered

- Physical Environment (Post Graduate Level, Class Size 30-40)
- Water Quality Management (Post Graduate Level, Class Size 30-40)
- Forest and Wildlife Ecology (Post Graduate Level, Class Size 30-40)
- Natural Resources Conservation & Management (Post Graduate Level, Class Size 30-40)
- Restoration Ecology (Under Graduate Level, Class Size 20-30)
- AEC: Environmental Science Theory into Practice – I (Under Graduate Level, Class Size 60-150)
- AEC: Environmental Science Theory into Practice – II (Under Graduate Level, Class Size 60-120)

Presentations

- ✓ **Alok Pandey***, David S. Stevenson, Alcide Zhao, Richard J. Pope, Ryan Hossaini, Krishan Kumar, Martyn P. Chipperfield, **PICO presentation**: Tropospheric NO₂ over South and East Asia measured by OMI and modelled by UKCA, EGU General Assembly 2025, Vienna, Austria, EGU25-975, <https://doi.org/10.5194/egusphere-egu25-975>, (April 27th – May 2nd 2025)

- ✓ **Alok Pandey***, David S. Stevenson, Alcide Zhao, Richard J. Pope, Ryan Hossaini, Krishan Kumar, Martyn P. Chipperfield, *Oral presentation*: “UKCA tropospheric nitrogen dioxide evaluation using OMI satellite retrievals across South and East Asia”, 9th International Nitrogen Conference Balancing Global Change and Sustainability ‘N2024’, Guru Gobind Singh Indraprastha University, New Delhi, India (February 6th – 8th 2024)
- ✓ **Alok Pandey***, David Stevenson, Alcide Zhao, Richard Pope, Krishan Kumar, Martyn Chipperfield, Ryan Hossaini; *Poster Presentation*: “Assessment of tropospheric NO₂ over South and East Asia in global climate composition model and Satellite data”, International Atmospheric Chemistry Conference IGAC 2022, Manchester, UK (September 10th – 15th 2022)
- ✓ Smith, Daniel, Srinivas Reka, **Alok Pandey**, Stephen Dorling, Andrew Neil Ross, Ian A. Renfrew, Bernie Claxton, T. J. Anurose, and A. Jayakumar; *Poster Presentation by Smith Daniel* “Aerosol-Fog Interactions over the Indo-Gangetic Plains of India”, In Collective Madison Meeting. American Meteorological Society (AMS), 2022, <https://ams.confex.com/ams/CMM2022/meetingapp.cgi/Paper/405694> (August 8th – 12th 2022)
- ✓ **Alok Pandey***, Andrew Ross; *Poster Presentation*: “Aerosol impacts on fog formation in Met Office NERC Cloud model (MONC) over New Delhi”, WCSSP Annual Science Meeting, virtually (March 7th - 11th 2022)
- ✓ **Alok Pandey***, Eloise Marais, Martin Van Damme, Lieven Clarisse, and Pierre-F. Coheur; *Oral presentation*: “UK NH₃ emissions derived with IASI and GEOS-Chem” at EOS-Chem Europe User's Meeting, virtually (September 1st – 2nd 2020)
- ✓ **Alok Pandey**, David Stevenson, Alcide Zhao, Krishan Kumar, Luke Surl, Brian Kerridge, Richard Pope; *Oral presentation*: “Evaluating tropospheric ozone in UKCA model with aircraft (IAGOS), satellite (OMI) and Ozone sonde observations over South Asia” at the 4th Atmospheric Composition and the Asian Monsoon (ACAM) Workshop at University of Malaysia (UKM), Kuala Lumpur, Malaysia (June 26th – 28th 2019)
- ✓ **Alok Pandey**, David Stevenson, Alcide Zhao, Krishan Kumar, Luke Surl, Brian Kerridge; *Poster Presentation*: “Evaluating Tropospheric Ozone over Southern Asia in UKCA using IAGOS, Ozone sonde and Satellite data” at the Composition Climate Interaction conference at Met Office, Exeter, UK (March 20th - 21st 2019)
- ✓ **Alok Pandey**, David Stevenson and Krishan Kumar; *Poster Presentation*: “Seasonal Variability in the Vertical Profiles of NO₂, SO₂ and O₃ over Indo – Gangetic Plains Using UKCA Model Simulations” at the Atmospheric Science Conference 2018: Weather, Climate and Air Quality at the Exhibition Centre, University of York, York, UK (July 3rd - 4th 2018)
- ✓ **Alok Pandey**, David Stevenson, Krishan Kumar; *Oral presentation*: “Comparison of satellite-derived and UKCA model-simulated air pollutants data over the Indo-Gangetic Plains” at Chemistry-Climate Model Initiative (CCMI) 2017 at the Centre International de Conférences de MétéoFrance, Toulouse, France (June 13th - 15th 2017)
- ✓ **Alok Pandey**, Krishan Kumar; *Poster Presentation*: “Spatio-temporal air quality trends over the Indo-Gangetic Plain” at “UKCA Theory and Practice Workshop” at the Department of Chemistry, University of Cambridge, Cambridge, UK (January 4th – 08th 2016) – **Best poster award**
- ✓ **Alok Pandey**, Ram Kumar, Krishan Kumar; *Oral Presentation*: “Satellite Based AOD, NO₂, SO₂ and HCHO Seasonal Variation over the Indo Gangetic Plain, India” at the Atmospheric Sciences and Application to Air Quality (ASAAQ) Conference Kobe, Japan (November 11th – 13th, 2015)

Training | School | Workshops | Symposia | Refresher Course | FIP | FDP Attended

1. ISRO – sponsored NNRMS Faculty Development Program on Remote Sensing & GIS Technology & Application with Specialization in RS & GIS Applications in Atmospheric and Ocean Studies at Indian Institute of Remote Sensing, Dehradun, India (19th May 2025 – 11th July 2025)
2. Two-week Interdisciplinary Refresher Course on “Managing Online Classes & Co-creating MOOCs” organized by Teaching Learning Centre, Ramanujan College, University of Delhi under the aegis of Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, ONLINE (7th – 21st 2024)
3. Four-week Faculty Induction/orientation Programme for “Faculty in Universities/Colleges/institutions of Higher Education” organized by Teaching Learning Centre, Ramanujan College, University of Delhi under the aegis of Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, ONLINE (20th September 2023 – 19th October 2023)
4. INSPIRING TRUST Organised by British Council on behalf of the Commonwealth Scholarship Commission in the UK, ONLINE (20th – 21st March 2021)

5. Earth System Modelling School 2019 organised within the project Advanced Earth System Model Capacity (ESM) and funded by Helmholtz Association at Bad Aibling, Germany (09th – 19th September 2019)
6. National Centre for Atmospheric Sciences (NCAS) “Atmospheric Measurement Summer School” at Isle of Arran, Arran, UK (13th – 24th May 2019)
7. National Centre for Atmospheric Sciences (NCAS) “Introduction to Atmospheric Science” at the University of Leeds, UK (21st – 25th January 2019)
8. National Centre for Atmospheric Sciences (NCAS) “Data Analysis Tool” at the University of Leeds, Leeds, UK (05th December 2018)
9. Attended the RENKEI Researcher Workshop: Building Japan-UK Research Collaboration on Climate Change at Bellesalle Kudan Kudan-Kita, Tokyo, Japan (29th – 30th November 2018)
10. National Centre for Atmospheric Sciences (NCAS) “Introduction to Unified Model” at the University of Reading, Reading, UK (07th – 09th November 2018)
11. Attended the PyCon UK 2018 Workshop & Conference on Python at Cardiff City Hall, Cardiff, UK (15th – 19th September 2018)
12. Attended the EuroPython 2018 Conference at Edinburgh International Conference Centre – EICC, Edinburgh, UK (23rd – 29th July 2018)
13. Tri-MIP-athlon workshop (A joint AerChemMIP / RFMIP / PDRMIP Workshop in support of CMIP6) at the University of Reading, Reading, UK (11th – 15th June 2018)
14. Training course on the LI-COR Eddy Covariance at the Forest Research Northern Research Station, Roslin, Edinburgh, UK (15th – 17th May 2018)
15. Workshop on the Advanced Institute on Disaster Risk Reduction with Systems Approach for Slow-Onset Climate Disasters (AI-SOCD) at Academia Sinica, Taipei, Taiwan (10th – 14th July, 2017)
16. GIAN (Global Initiative for Academic Network) course on “Spatial Data Analysis” at Jawaharlal Nehru University, New Delhi (26th – 30th December 2016)
17. National Centre for Atmospheric Sciences (NCAS) “Introduction to Scientific Computing Course” at the University of Leeds, Leeds, UK (11th – 15th April 2016)
18. Attended the “UKCA Theory and Practice Workshop” funded by the National Centre for Atmospheric Sciences (NCAS) at the Department of Chemistry, University of Cambridge, Cambridge, UK (4th – 08th January 2016)
19. ISPRS Summer School on Open-Source GIS conducted by Indian Institute of Remote Sensing (IIRS), Dehradun (6th – 10th July 2015)
20. Training course on “Glaciers, Climate Change and Remote Sensing” sponsored by Divecha Centre for Climate Change, Department of Science and Technology, Govt. of India and University of Iceland held at Indian Institute of Science, (IISc) Bangalore (08th – 19th June 2015)
21. BRNS-AEACI Eight School on Analytical Chemistry (SAC-8) Jointly organized by BARC, Mumbai and CSIR-NML at CSIR-National Metallurgical Laboratory, Jamshedpur (14th – 21st April 2014)
22. Winter school on Atmospheric “Aerosol Physics, Measurement and Sampling Techniques”- Indian Institute of Technology, Madras (13th – 16th January 2014)
23. 1st COSPAR Symposium on “Planetary System of our Sun and Other Stars and the Future of Space Astronomy” at Bangkok Thailand (11th – 15th November 2013)
24. Capacity Building Workshop entitled “Atmospheric Correction of Earth Observation data for Environmental Monitoring: Theory & Best Practices” jointly organized by COSPAR and GISTDA at Bangkok, Thailand (4th – 8th November 2013)
25. SERB School on “Weather and Climate in Tropics” sponsored by Science and Engineering Research Board, Department of Science and Technology, Govt. of India held at Indian Institute of Technology, Delhi (3rd – 26th June 2013)
26. Management Development Programme on Statistical Modeling for Data Analysis – Indian Institute of Technology, Kharagpur (10th – 15th December 2012)
27. Participated as a ISRO Sponsored Delegate in 39th COSPAR Scientific Assembly 2012; Theme: Space for the Benefit of Mankind at Mysore (14th – 22nd July 2012)

28. Faculty Development Programme on “Pattern Recognition & Image Processing Using MATLAB” – Delhi Institute of Advance Studies, Delhi (1st – 2nd June 2012)
29. Poster Presentation in National Seminar on Environment Pollution and Bioremediation entitled “A comparative study of the spectral characteristics of noise levels due to dusk chorus at different types of habitats in Delhi” – Jawaharlal Nehru University, New Delhi (28th – 29th December 2011)
30. National Seminar on Modern and Palaeo Sediments: Implication to climate, Water Resources and Environmental Changes & XXVIII Convention of Indian Association of Sedimentologists – Jawaharlal Nehru University, New Delhi (24th – 26th November 2011)
31. Workshop on Advance Soft Computing Techniques in Hydrology and its Application – National Institute of Hydrology, Roorkee (20th – 24th June 2011)
32. Short term course on Aerosol properties: Health, Regional Air Quality and Climate – Indian Institute of Technology, Delhi (1st – 4th April 2011)

Mentorship and Supervision

A) Mentorship

Under Commonwealth Scholarship Commission Mentoring Programme

- I) Candidate Name: Ms Regina Deri | Session: 2023 – 2024 | Country: Nigeria
Year of study: 2023 Commonwealth Master’s Scholar | Course name: Satellite Data Science University: University of Leicester, United Kingdom
- II) Candidate Name: Ms Manvinder Kingra | Session: 2024 – 2025 | Country: India
Year of study: 2024 Commonwealth Master’s Scholar | Course name: Environmental Engineering University: University of Strathclyde, United Kingdom

B) Intern Supervision

- Supervised the internship of Mr Amarendra Chaudhary, M.Tech (Geo-informatics) Student at Haryana Space Application Centre (HARSAC) | Training report - “Spatio-Temporal Variability of Lightning and Its Association with Rainfall Patterns Across India” (June – Aug 2024)

Training | School | Workshops | Symposia – Organized

- [1] Basics of Remote Sensing, Geographical Information as IIRS – ISRO EDUSAT Programme Coordinator (21st August 2017 to 04th December 2017)
- [2] Remote Sensing and Digital Image Analysis as IIRS – ISRO EDUSAT Programme Coordinator (21st August 2017 to 15th September 2017)
- [3] Overview of RS & GIS Applications for Natural Resource Management as IIRS – ISRO EDUSAT Programme Coordinator (13th November 2017 to 01st December 2017)
- [4] Close Range Photogrammetry and terrestrial Laser Scanning as IIRS – ISRO EDUSAT Programme Coordinator (08th January 2018 to 12th January 2018)
- [5] Hyperspectral Remote Sensing and its Applications as IIRS – ISRO EDUSAT Programme Coordinator (19th February 2018 to 13th March 2018)
- [6] One day workshop on ब्रह्मांड की उत्पत्ति सौर मंडल की खोज as IIRS – ISRO Outreach Programme Coordinator (09th January 2026)
- [7] Geospatial Information, Mapping standards and Spatial analytics framework for Master Plan Formulation as IIRS – ISRO Outreach Programme Coordinator (06th April 2026 to 17th April 2026)