Name: Anup Krishna Prasad
Email: anup@iitism.ac.in
Age: 46 years
Nationality: Indian
Phone (mobile): ***+91-9471192451***
Current Affiliation (Address for correspondence):
Associate Professor,
Department of Applied Geology,
Indian Institute of Technology (Indian School of Mines) Dhanbad, 826004, India

➢ PROFESSIONAL PREPARATION:

- **Ph.D. 2007** *(CPI of 9.33/10 in Course Work: A+)*
  Indian Institute of Technology Kanpur-208016, India
- **Master of Science and Technology (Applied Geology) 2002 (GPA. of 4.69 /5.00; A+)**
  Indian School of Mines Dhanbad, Jharkhand-826004, India
- **Bachelor of Science (Honours: Geology with Physics and Mathematics) 1998**
  D.D. College Keonjhar, Utkal University, Bhubaneswar, India

➢ APPOINTMENTS (>16 YEARS OF POST-PHD EXPERIENCE):

June 2014-continuing	• **Associate Professor,** Department of Applied Geology, IIT(ISM) Dhanbad/Indian School of Mines Dhanbad, India
Sep. 2011 – May 2014	• **Consultant (Research Scientist),** NASA Research Project, Institute of Atmospheric Physics, Dept. of Atmospheric Sciences, U. of Arizona, Tucson, AZ, USA.
Jun. 2009 – Aug. 2012	• **Research Assistant Professor, School of Earth and Environmental Sciences**, Schmid College of Science and Technology, Chapman University, Orange, CA, USA.
Oct 2008 – May 2009	• **Research Assistant Professor,** Dept. of Physics, Computational Science and Engineering, Schmid College of Science, Chapman University, Orange, CA, USA.
Aug. 2007 – Sep. 2008	• **Research Assistant Professor**, at the Center for Earth Observing and Space Research, George Mason University, Fairfax, VA, USA.
May 2004 – Sep 2004)	• **Visiting Scientist** (at United Nations Environment Programme (UNEP), USGS, EROS, Sioux Falls, SD, USA.

➢ AREA OF SPECIALIZATION AND RESEARCH INTEREST:

FTIR Spectroscopy of Coal/Shale/Minerals/Rocks, Coal Geology, Hyperspectral Remote Sensing and Exploration, Image Processing and Spatial Data Analysis, Aerosols and Climate Change, Geostatistics & GIS

➢ SPONSORED RESEARCH - GRANTS

1. **Project Title: "Application of spectroscopic methods and machine learning algorithms for a rapid and reliable estimate of the gross calorific value (GCV) in high-ash Indian coal",** Funding Agency: MATRICS, SERB, DST, **PI: Prof. A.K. Prasad (sole PI),** Towal Award Amount: 6.6 Lakhs, Total Award Period Covered: 12/02/2024 to 11/02/2027.

2. **Project Title: High ash coal gasification and associated upstream and downstream processes (Coal to Chemicals- CTC), Coal India R&D project.** Funding Agency: CIL, PI: PI: Professor I.M. Mishra, **Role as: Co-I: Prof. A.K. Prasad.** Total Award Amount: Rs. 2160.721 Lakhs (IIT(ISM) Component: Rs. Rs. 1872.007 lakh). Total Award Period Covered: 17.07.2017-16.07.2020.
3. **Project Title: Studies on the Use of Coal and Petcoke as Fuel in the Cement Industry in India**, Coal India R&D project. Funding Agency: CIL, PI: PI: Professor I.M. Mishra, Role as: Co-I: Prof. A.K. Prasad. Total Award Amount: Rs. 431.28 Lakhs. Total Award Period Covered: 05.07.2016 – 04.07.2018.
4. Project Title: "**Geospatial Fusion of Parameters Controlling orogenic Gold Mineralization and Delineation of Gold prospective Zones within Chandil Formation, North Singhbhum Mobile belt, Eastern Indian Craton. A Regional Scale Analytical Approach through the Integrated Applications of GIS, GPS and Remote Sensing Technology.** Funding Agency: NRDMS, DST PI: Dr. S. Singh, **Role as: Co-PI: Prof. A.K. Prasad**. Total Award Amount: Rs. 38,50,000. Total Award Period Covered: February 2016-Janury 2018.
5. Project Title: "**Integration of Airborne Aerosol Prediction Systems and Vegetation Phenology to Track Pollen for Asthma Alerts in Public Health Decision Support Systems**", Funding Agency: NASA, NASA MSFC- PI: Jeffrey Luvall, UA science PI: William A. Sprigg, **Role as: Consultant - Research Scientist, Dr. A.K. Prasad**. Total Award Amount (over a Million USD): $1,200,000. Total Award Period Covered: August 2009- April 2014.
6. Project Title: "Collaborative Research: Type 1 - **Multi-Model Regional Simulation of Climate Change Impacts on Agriculture and Ecosystems in the Southwestern United States**" Funding Agency: USDA-NSF-NIFA, PI: Professor Menas Kafatos. **Role as: CO-I, Dr. A.K. Prasad**. Total Award Amount: $848,000, Total Award Period Covered: 4/1/11-3/31/14
7. Project Title: "**Studying Air Quality Dynamics using A Linear Genetic Programming Approach over Remotely Sensed Atmospheric Parameters: case study (Cairo, Egypt)**" Funding Agency: NSF Award for US-Egypt joint research agreement (2009-2011), **Role as: Research Scientist, Dr. A.K. Prasad**. Total Award Amount: $60,000, Total Award Period Covered: 2009-2011.
8. Project Title: "**Aerosol Studies utilizing Remote Sensing and other Observations over India and their Significance for the Climate System**". Funding Agency: IGC. P.I.: Professor Menas Kafatos, **Role as: Co-I, Dr. A.K. Prasad.** Total Award: $100,000, Total Award Period: 2009-2011.
9. Project Title: **Hazards Studies utilizing Remote Sensing and other Observations and their Connection to the Climate System**". Funding Agency: SSAI. P.I.: Professor Menas Kafatos, **Role as: Co-I, Dr. A.K. Prasad**. Total Award Amount: $149,500; Total Award Period: 6/1/09-12/31/11.

➢ CONSULTANCY/EDP/WORKSHOP/SHORT COURSES

1. Project Title: "Resource estimation for titanium and vanadium in beach and dune samples of Talashil Block, Sindhudurg District, Maharashtra". Total: Rs. 4, 00, 020, Period: Dec 2024 to Jan 2025, Role as: CI, Prof. A.K. Prasad, Co-CI: Prof. A.S. Venkatesh.
2. Project Title: Study of Variability of Sea-Surface Height, Bathymetry, Topography and Scenarios of Submergence around Gulf of Khambhat, Arabian Sea". Total: Rs. 6, 50, 001, Period: Jul2022-Dec2022, Role as: CI, Prof. A.K. Prasad.

3. EDP: Training on identification of Macerals in Sedimentary rocks, Total Value: Rs.19,42,462, Role as: Co-CI, Prof. A.K. Prasad, CI: Prof. A.K. Varma, Co-CI: Prof. M.K. Mukherjee, Period: Two weeks (Tentative: April 2023)
4. Workshop Title: A "Three-Day Workshop" Under the aegis of TEQIP-III On Design & Style of a PhD Thesis and Reference Management using Open Source Solutions, April 06-08, 2018, Executive Development Centre (EDC), IIT(ISM) Dhanbad, Total: Rs. 2,50,000, Sponsor: TEQIP, Role as: CI, Prof. A.K. Prasad.
5. Workshop Title: A "Three-Day Workshop" Under the aegis of TEQIP-III On Design & Style of a PhD Thesis and Reference Management using Open Source Solutions, March 29-31, 2018, Executive Development Centre (EDC), IIT(ISM) Dhanbad, Total: Rs. 2,50,000, Sponsor: TEQIP, Role as: CI, Prof. A.K. Prasad.
6. Workshop Title: A "Three-Day Workshop" Under the aegis of TEQIP-III On Design & Style of a PhD Thesis and Reference Management using Open Source Solutions, January 16-18, 2018,, IIT (ISM) Institute Industry Interaction Facility (IIIF), New Delhi, Total: Rs. 2,50,000, Sponsor: TEQIP, Role as: CI, Prof. A.K. Prasad.

➢ LAB, FIELD EXPERIENCES AND SYNERGISTIC ACTIVITIES

- Estimation of carbon content in high-ash coal using mid-infrared Fourier-transform infrared spectroscopy.
- Rapid estimation of sulfur content in high-ash Indian coal using mid-infrared FTIR data
- A novel multi-model estimation of phosphorus in coal and its ash using FTIR spectroscopy.
- Automated grain size analysis of microphotographs from thin-sections and polished samples
- Automated Petrography of Coal using spectral signatures (thin and polished sections).
- 3D geological and geostatistical modeling of ore deposits.
- Ground control points (more than 100), using survey grade GPS receiver, around Jharia Coal Field. Accuracy assessment of cellphone GPS, DGPC and multi-sensor estimates of positioning and topography.
- Status of Himalayan glaciers and snow cover, high-resolution dust source mask and near real-time processing of satellite data such as TRMM, MODIS etc. for intensity, duration and frequency mapping of natural hazards such as flood, flash floods, heat waves etc.
- Application of hyperspectral imaging and spectraradiometer data in identification of minerals in soil and maturity of pollens from different juniper tree species.
- Developed 1 km grid resolution **Juniper pollen source masks** using MODIS, Lidar, USGS and field data for pollen associated allergy-health risk forecast system over southwestern USA.
- **Convener**: Organized a session on "Remote Sensing and Modeling of Dust Storms" at **AOGS - AGU (WPGM) Joint Assembly**, 13 to 17 August, 2012. Singapore. **Session Co-convener:** Session: NH53A: Remote Sensing and Modeling of Dust Storms: Monitoring and Forecasting, Co-organizer. AGU Fall Meeting 2010, San Francisco, CA, 13-17 Dec 2010.
- **Invited Talk (discussion topic): Valley Fever Workshop** on 11-12 January, 2012 at University of Arizona, Tucson, AZ, USA. Discussion with workshop participants about cocci-soil-preferences, soil mapping, and possibility for "cocci masks" in DREAM Model.
- **Invited Talk: Special NASA/UAH Atmospheric Science Seminar** presentation, on "Melting of Himalayan Glaciers and Temperature trends", March 27th, 2012 at Huntsville, AL, USA,
- **Scientific member** of the sea expedition team for atmospheric studies over the Bay of Bengal and Arabian Sea, in an ISRO ICARB (Integrated Campaign on Aerosol and Radiation Budget) program.
- **GPS Permanent station and Field Campaigns:** In IG plains region. Automatic processing of dual frequency GPS data in linux for geodetic and atmospheric studies (GAMIT/GLOBK).

- **MODIS Terra and Aqua "Direct Broadcast" XL Band Antenna**: procurement, installation, management, processing package software updates & near real-time data production and delivery.

➢ **RESEARCH AND TEACHING EXPERIENCE: 16.5 years (post PhD)**

➢ **FELLOWSHIP/AWARDS:** GATE (Graduate Aptitude Test in Engineering) 2002; UGC scholarship - M.Sc.Tech (2001-02), ; UGC-CSIR NET/JRF (2001 and 2002) : National Eligibility for University/College, Lectureship + Research Fellowship, INDIA; Early Career Scientist: ECSA-WCRP Workshop 2011, WCRP Open Science Conference 2011;Young Scientist - travel award Union Radio Scientifique Internationale-URSI, NOAA/CLIVAR CDPW 2008, URSI 2008, CLIVAR 2004; Institute PhD fellowship (IIT Kanpur, 2002-07), National Scholarship (1998, Not Availed)

➢ **SPONSORED RESEARCH GRANTS/PROJECTS/CONSULTANCY:**

Research Grants/Projects: 9	**Consultancy/EDP/Workshops: 5**	**Funding Agencies:** DST (India), NASA, USDA-NSF-NIFA IGC, SSAI, NSF (USA)

➢ **PUBLICATIONS:** Refereed Journal Articles **(38)**, Proceedings, Newsletters, Reports (**9**), Book Chapters (**2**), PATENTS: **(3, USA, India).**

➢ **RESEARCH - CITATION INDICES**:
(Google Scholar) **h-index = 27, i10-index = 33**, **Citations: 3150.**

➢ **AREA OF SPECIALIZATION AND RESEARCH INTERESTS:**

Area of Specialization:

1. FTIR Spectroscopy of Coal/Shale/Soil/Minerals/rocks. Coal characterization, Spectral response of natural materials, identification, and abundance.
2. Hyperspectral Remote Sensing and FTIR Spectroscopy for Exploration- Application of hyperspectral remote sensing in geosciences, integration of field and satellite data.
3. Digital Image Processing and Spatial Analysis of microphotographs and remotely sensed satellite images (automated).
4. Geostatistics & GIS - Geostatistical Modeling, Ore Reserve Estimation, Integrated spatial analysis using GIS.
5. Aerosols, Snow Cover, Urban heat island, and Climate Change issues.

Current Research Applications:

1. COAL & PETCOKE: Characterization using FTIR, Microscopy, and Estimation Modeling.
2. EXPLORATION: Mineral Exploration using FTIR, CHNS, and Hyperspectral Imaging.
3. OREBODY MODELING: Geostatistical modeling of Ore deposits.
4. Aerosols, Glaciers, and Climate Change: Aerosol characterization, Himalayan Snow Cover and Glaciers, Climate Change, Natural hazards, and Environmental Impact Analysis.

➢ **COURSES TAUGHT (UG/PG)**

Theory Courses:

1. Coal Geology
2. Remote Sensing and GIS
3. Image Processing and Data Analysis,
4. Environment Geology
5. Hyperspectral Remote Sensing
6. Computer Applications in Geology
7. Atmosphere, Ocean and Climate Dynamics
8. Research Methodology
9. Geodynamics
10. Geology for Mining Engineers
11. Earth System Science

Practical Courses

1. Coal Geology Practical
2. Remote Sensing and GIS Practical
3. Image Processing and Data Analysis Practical
4. Atmosphere, Ocean and Climate Dynamics Practical
5. Computer Applications in Geology Practical
6. Geostatistics Practical

List of Completed PhDs:

1. Dr. Kumari Preety, Adm. No. 2015DR0219, Prof. Anup Krishna Prasad (Guide); Prof. Atul Kumar Varma (Co-Guide),ASSESSMENT OF VERTICAL ACCURACY, RELAHVE PERFORMANCE, AND ENHANCEMENT OF SPACE-BASED DIGITAL ELEVATION MODELS (DEMs) USING DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS), Date of Award: 05-09-2022, Department of Applied Geology, IIT(ISM) Dhanbad.
2. Dr. Ashmeer Mohammad, Adm no. 2015DR1108, Prof. Anup Krishna Prasad (Guide), TITANIUM-VANADIUM BEARING MAGNETITE-ILMENITE MINERALIZATION WITHIN MAFIC SUITE IN AND AROUND SUDAMAKUND AND PAHARPUR AREAS, CHHOTANAGPUR GNEISSIC COMPLEX, EASTERN INDIA, Date of Award: 01-08-2023, Department of Applied Geology, IIT(ISM) Dhanbad.
3. Dr. Anubhav Shukla, Adm.no. 17DR000435, Prof. Anup Krishna Prasad (Guide); Prof. Atul Kumar Varma (Co-guide), RAPID ESHMAHON OF SULFUR IN INDIAN COAL USING MIDINFRARED FTIR SPECTROSCOPY AND MODELING OF GROSS CALORIFIC VALUE, AND CARBON NANOPRODUCTS, Date of Award: 15-09-2023, Department of Applied Geology, IIT(ISM) Dhanbad.
4. Dr. Swakangkha Ghosh, Adm. No. 2016DR1103, Prof. Anup Krishna Prasad (Guide); Dr. George Philip, Wadia Institute of Himalayan Geology, Dehradun & Prof. T. H. Syed, Department of Earth Sciences, IIT Kanpur [External Co-guide(s)] ACTIVE TECTONICS AND PALEOSEISMOLOGICAL INVESHGAHONS OF THE TRANS-YAMUNA ACTIVE FAULT SYSTEM, NORTHWESTERN SUB-HIMALAYA, INDIA: IMPLICATIONS FOR EARTHQUAKE HAZARD ASSESSMENT, Date of Award: 22-03-2024, Department of Applied Geology, IIT(ISM) Dhanbad.
5. Dr. Nirasindhu Desinayak, Adm. No. 2014DR0226, Prof. Anup Krishna Prasad (Guide); SPATIO-TEMPORAL DYNAMICS OF GLACIERS, SNOW COVER, AND TROPOSPHERIC TEMPERATURE IN THE HINDU KUSH HIMALAYAN REGION, Date of PhD Defense: 21-06-2024, Department of Applied Geology, IIT(ISM) Dhanbad.
6. Dr. Suren Nayak, Adm. No. 2016DR0056, Prof. Anup Krishna Prasad (Guide); SPATIO-TEMPORAL DYNAMICS OF LAND SURFACE TEMPERATURE AND URBAN HEAT ISLAND EFFECT OVER INDIA USING LONG-TERM MODIS OBSERVATIONS (2000-2023), Date of PhD Defense: 21.08.2024, Department of Applied Geology, IIT(ISM) Dhanbad.
7. Dr. Sameeksha Mishra, Adm No. 19DR0131, Prof. Anup Krishna Prasad (Guide); RAPID ESTIMATION OF CARBON CONTENT AND ASH YIELD IN INDIAN COAL USING MID-INFRARED FTIR SPECTROSCOPY, Date of PhD Defense: 23-12-2024, Department of Applied Geology, IIT(ISM) Dhanbad.

Ongoing PhDs: 7 Full-time, 2 Part-time.

Administrative Duties:

1. CHAIRMAN, DOCUMENTATION CELL, IITISM, 2018-19.
2. ASSOCIATE DEAN (ACADEMIC PG), 2018-19
3. ASSOCIATE DEAN (INDUSTRIAL RESEARCH & CONSULTANCY), 2019-20
4. TREASURER, IITISM ALUMNI ASSOCIATION, ISMAA, 2015-2019
5. SECRETARY, DAC, APPLIED GEOLOGY, 2015-19

6. MEMBER, BOCS, APPLIED GEOLOGY, 2015-2017
7. MEMBER, DST FIST PHASE-II, APPLIED GEOLOGY, 2014-2020.
8. MEMBER, VISION DOCUMENT COMMITTEE, IITISM, 2017-18.
9. CO-CONVENER, CONCETTO, 2017-18.
10. MEMBER, BASANT, 2015-19, 2024-25.
11. MEMBER, JOSAA, IIT-JEE ADMISSION, 2023-2024, 2024-2025 session.
12. Member DPAC, AGL, 2023-2025.
13. OTHER CONFIDENTIAL/EXAMINER (PG/PhD) TASKS. Institute/External.

Total Number of Journal Publications in Entire Career (According to Web of Science - WoS)

No. of Publications in Q1 Journals	No. of Publications in Q2 Journals	Total number of publications
13	15	38

Number of Publications as Sole Guide/Principal Guide of PhD students in current position (According to Web of Science, WoS)

No. of Publications in Q1 Journals	No. of Publications in Q2 Journals
2	6

List of Publications:

Refereed Journal Articles (Web of Science – WoS - Published)

1. Vinod, A., Prasad, A.K., Mishra, S. et al. A novel multi-model estimation of phosphorus in coal and its ash using FTIR spectroscopy. Scintific Reports, 14, 13785 (2024). https://doi.org/10.1038/s41598-024-63672-x (*Citations: NA, ImpactFactor:* 3.8)
2. Nayak, S.; Vinod, A.; **Prasad, A.K.** (2023). Spatial Characteristics and Temporal Trend of Urban Heat Island Effect over Major Cities in India Using Long-Term Space-Based MODIS Land Surface Temperature Observations (2000–2023). Appl. Sci., 13, 13323. https://doi.org/10.3390/app132413323. (WoS Citations: NA, ImpactFactor: 2.818)
3. Desinayak, N.; **Prasad, A.K.**; Vinod, A.; Mishra, S.; Shukla, A.; Nayak, S. (2023). Rise in MidTropospheric Temperature Trend (MSU/AMSU 1978–2022) over the Tibet and Eastern Himalayas. Appl. Sci., 13, 9088. https://doi.org/10.3390/app13169088 (WoS Citations: NA, ImpactFactor: 2.818)
4. Mishra, S.; **Prasad, A.K.**; Shukla, A.; Vinod, A.; Preety, K.; Varma, A.K. (2023). Estimation of Carbon Content in High-Ash Coal Using Mid-Infrared Fourier-Transform Infrared Spectroscopy. Minerals, 13, 938. https://doi.org/10.3390/min13070938. (WoS Citations: 1, ImpactFactor: 2.5)
5. Shukla, A., **Prasad, A.K.**, Mishra, S., Vinod, A., & Varma, A.K. (2023). Rapid Estimation of Sulfur Content in High-Ash Indian Coal Using Mid-Infrared FTIR Data. Minerals, 13(5), 634. MDPI AG. Retrieved from http://dx.doi.org/10.3390/min13050634. (WoS Citations: 1, ImpactFactor: 2.5)
6. Ghosh, S., Philip, G., **Prasad, A. K.**, Syed, T.H., & Mohanty, S.P. (2023). Towards Quantifying the relative tectonic activity in the Trans-Yamuna segment of the NW Himalaya. Geocarto International. https://doi.org/10.1080/10106049.2022.2155712 (WoS Citations: 0, ImpactFactor: 3.45)

7. Mohammad, A., **Prasad, A.K.**, Wetsah, K., Azad, M., Aryan, V., & El-Askary, H. (2022). Titaniferous-Vanadiferous, Magnetite-Ilmenite Mineralization in a Mafic Suite within the Chhotanagpur Gneissic Complex, Bihar, India. Minerals, 12(7), 860. https://doi.org/10.3390/min12070860 (WoS Citations: NA, ImpactFactor: 2.818)
8. Desinayak, N., **Prasad, A.K.**, El-Askary, H., Kafatos, M., & Asrar, G. R. (2022). Snow cover variability and trend over the Hindu Kush Himalayan region using MODIS and SRTM data. Annales Geophysicae, 40(1), 67–82. https://doi.org/10.5194/angeo-40-67-2022 (WoS Citations: 9, ImpactFactor: 2.19)
9. Preety, K., **Prasad, A.K.**, Varma, A. K., & El-Askary, H. (2022). Accuracy Assessment, Comparative Performance, and Enhancement of Public Domain Digital Elevation Models (ASTER 30 m, SRTM 30 m, CARTOSAT 30 m, SRTM 90 m, MERIT 90 m, and TanDEM-X 90 m) Using DGPS. Remote Sensing, 14(6), 1334. https://doi.org/10.3390/rs14061334 (WoS Citations: 8, ImpactFactor: 5.349)
10. El-Askary, H., Park S. K., M-H Ahn, **Prasad, A.K.,** and Kafatos, M. (2015), On the Detection and Monitoring of the Transport of an Asian Dust Storm Using Multi-sensor Satellite Remote Sensing, Journal of Environmental Informatics, doi:10.3808/jei.201500306. (WoS Citations: 18, ImpactFactor: 3.773)
11. Park, S., El-Askary, H. , Sabbah, I., Kwak, H., **Prasad, A. K.,** W-K Lee, and Kafatos, M. (2015), Studying air pollutants origin and associated meteorological parameters over Seoul from 2000 to 2009, Advances in Meteorology, Article ID 704178, pp. 1-2. https://doi.org/10.1155/2015/704178. (WoD Citations: 9, ImpactFactor: 1.348)
12. Kim, So-Ra, **A.K. Prasad**, H. El-Askary, W-K Lee, D-A Kwak, S-Ho Lee, and M Kafatos (2014), Application of the Savitzky-Golay filter to land cover classification using temporal MODIS vegetation indexes, Photogrammetric Engineering & Remote Sensing, 80(5), 675-685, https://doi.org/10.14358/PERS.80.7.675. (WoS Citations: 25, ImpactFactor: 1.80).
13. Sprigg, W. A. , S. Nickovic, J. N. Galgiani, G. Pejanovic, S. Petkovic, M. Vujadinovic, A. Vukovic, M. Dacic, S. DiBiase, **A. K. Prasad**, and H. El-Askary (2014), Regional dust storm modeling for health services: The case of valley fever, Aeolian Research, 14, 53–73. http://dx.doi.org/10.1016/j.aeolia.2014.03.001, (WoS Citations: 59, ImpactFactor: 2.520).
14. Vukovic, A., M. Vujadinovic, G. Pejanovic, , J. Andric, M. R. Kumjian, V. Djurdjevic, M. Dacic, , **A. K. Prasad**, H. M. El-Askary, B. C. Paris, S. Petkovic, S. Nickovic, and W. A. Sprigg (2014), Numerical simulation of "An American Haboob", Atmos. Chem. Phy., 14, 3211– 3230, 2014, www.atmos-chem-phys.net/14/3211/2014/; doi:10.5194/acp-14-3211-2014, (WoS Citations: 44, ImpactFactor: 5.510).
15. Jaswal, A. K., N. Kumar, **A. K. Prasad**, and M. Kafatos (2013), Decline in horizontal surface visibility over India (1961-2008) and its association with meteorological variables (2013), Natural Hazards, 1-26pp., https://doi.org/10.1007/s11069-013-0666-2. (WoS Citations: 20, ImpactFactor: 1.639).
16. Kumar, S., Singh A.K., **A.K. Prasad**, and R.P. Singh (2013), Variability of GPS derived water vapor and comparison with MODIS data over the Indo-Gangetic plains, Physics and Chemistry of the Earth, 55-57, 11-18, (doi:10.1016/j.pce.2010.03.040. (WoS Citations: 23, ImpactFactor: 0. 917).
17. Kaskaoutis, D. G., **A.K. Prasad**, P.G. Kosmopoulos, P.R. Sinha, S. K. Kharol, P. Gupta, H. M. El-Askary, and M. Kafatos (2012), Synergistic use of remote sensing and modeling for tracing

dust storms in the Mediterranean, Advances in Meteorology, , 14pp, doi:10.1155/2012/861026, (WoS Citations: 22, ImpactFactor: 1.239).

18. El-Askary, H., Mohamed Allali, C. Rakovski, **A.K. Prasad**, Menas Kafatos, and Daniele Struppa (2012), Computational methods for climate data, Wiley Interdisciplinary Reviews: Computational Statistics, 4 (4), pages 359–374, DOI: 10.1002/wics.1213, (WoS Citations: 3 , ImpactFactor: NA).
19. **Prasad, A.K.,** R. P. Singh, and M. Kafatos (2011), Influence of coal-based thermal power plants on the spatial–temporal variability of tropospheric NO2 column over India, Environmental Monitoring and Assessment, DOI 10.1007/s10661-011-2087-6. (WoS Citations: 41, ImpactFactor: 1.436).
20. **Prasad, A. K.,** H.M. El-Askary, and M. Kafatos (2010), Implications of high altitude desert dust transport from Western Sahara to Nile Delta during biomass burning season, Environmental Pollution, 158, 3385-3391. https://doi.org/10.1016/j.envpol.2010.07.035. (WoS Citations: 34, ImpactFactor: 3.395).
21. **Prasad, A.K.,** R.P. Singh (2010), Chlorophyll, calcite, and suspended sediment concentrations in the Bay of Bengal and the Arabian Sea at the river mouths, Advances in Space Research, 45, 61– 69. https://doi.org/10.1016/j.asr.2009.07.027. (WoS Citations: 17, ImpactFactor: 1.076).
22. **Prasad, A.K.,** and R. P. Singh (2009), Validation of MODIS Terra, AIRS, NCEP/DOE AMIP-II Reanalysis-2, and AERONET Sun photometer derived integrated precipitable water vapor using ground-based GPS receivers over India, Journal of Geophysical Research, 114, D05107, doi:10.1029/2008JD011230. (WoS Citations: 121, ImpactFactor: 3.303).
23. **Prasad, A.K.,** K.-H.S. Yang, H.M. El-Askary, and M. Kafatos (2009), Melting of major Glaciers in the western Himalayas: evidence of climatic changes from long term MSU derived tropospheric temperature trend (1979-2008), Ann. Geophys., 27, 4505-4519. doi:10.5194/angeo27-4505-2009. (WoS Citations: 85, ImpactFactor: 1.620).
24. Singh, R. P., **A.K. Prasad**, V.K. Kayetha, and M. Kafatos (2008), Enhancement of oceanic parameters associated with dust storms using satellite data, Journal of Geophysical Research, 113, C11008, doi:10.1029/2008JC004815. (WoS Citations: 72, ImpactFactor: 3.303).
25. **Prasad, A.K.,** S. Singh, S.S. Chauhan, M.K. Srivastava, R.P. Singh, and R. Singh (2007), Aerosol radiative forcing over the Indo-Gangetic plains during major dust storms, Atmospheric Environment, doi:10.1016/j.atmosenv.2007.03.060. (WoS Citations: 147, ImpactFactor: 3.226).
26. **Prasad, A.K.,** and R.P. Singh (2007), Changes in aerosol parameters during major dust storm events (2001-2005) over the Indo-Gangetic basin using AERONET and MODIS data, Journal of Geophysical Research,112 (D9), D09208, doi: 10.1029/2006JD007778. (WoS Citations: 182, ImpactFactor: 3.303).
27. Bhattacharjee, P.S., **A.K. Prasad**, M. Kafatos, and R.P. Singh (2007), Influence of A Dust Storm on Carbon Monoxide and Water Vapor over Indo-Gangetic Plains, Journal of Geophysical Research, 112, D18203, doi:10.1029/2007JD008469. (WoS Citations: 39, ImpactFactor: 3.303).
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