Name of Faculty	Dr. Dudam Bharath Kumar
Designation	Assistant Professor
Nature of Job/Appointment	Regular
Date of Joining	30 - 11 - 2022
E-mail	bharathkumard_civil@cbit.ac.in

Education Qualifications	Name of the Degree	Class
Ph. D.	Doctor of Philosophy (Civil Engineering)	Awarded
PG	M. Tech. (Environmental Engineering)	Distinction
UG	B. E. (Civil Engineering)	Distinction

Work Experience

Teaching	6 Years
Research	6 years 7 months
Industry	--
Others	--

Area of Specialization	Air pollution and climate change, Sources, climatology and health risks of aerosols, Aerosol chemistry and soft computing applications in air quality management.
Professional Memberships	--
Responsibilities held at InstitutionLevel	
Responsibilities held at Department Level	1. Coordinator, NIRF& ARIIA from 15-12-2022 to till date. 2. Co-coordinator, Internship for 2nd year from 15-12-2022 to till date. 3. Lab In-charge, Environmental Engineering Lab from 01-02-2024. 4. Coordinator, Industry-Innovation Cell (IIC) and Career Guidance Cell (CGC) from 01-12-2023.
Research Guidance	Guiding 01 Research Scholar who was submitted Ph. D thesis and awaiting For the defense.
Awards Received	--
Courses Handled at Under Graduate / Post Graduate Level.	UG Level: Environmental Engineering (EE), Surveying-I, Air and Noise pollution control (ANPC), Water and Air quality modeling (WAQM), Solid and Hazardous waste management (SHWM), Environmental Impact Assessment (EIA), Global warming and climate change, Environmental Engineering Lab, Solid Mechanics Lab; PG Level: Remote sensing and GIS (RS&GIS), Remote sensing and GIS (RS&GIS lab).
No. of Papers Published	National Journals – -- International Journals – 13 National Conference – -- International Conference – 35

Technology Transfer	--
Invited Speaker	As a Resource person delivered a talk on " Application of Statistics in Environmental Engineering " on 19 November 2024 (Thursday) organized by Department of Civil Engineering, Chaitanya Bharathi Institute of Technology (Autonomous), Hyderabad in association with AICTE Idea Lab and and Indian Concrete Institute, Hyderabad Centre during 14th November-5th December, 2023.
No. of Books/Chapters Published with details	Book Publications -- Book Chapter Publications 1. Sasmita, S., **Dudam, B.K**. (2023). Study of Wastewater Treatment in Hindustan Coca-Cola Plant at Khurda. In: Mazumder, D. (eds) Sustainable Advanced Technologies for Industrial Pollution Control. ATIPC 2022. Springer Proceedings in Earth and Environmental Sciences. Springer, Cham. https://doi.org/10.1007/978-3-031-37596-5_26 (Scopus) 2. **Kumar, D.B.**, Sushree, S. (2022). Testing the Skill of Hybrid Model Approach for Aerosol Estimates. In: Das, B.B., Hettiarachchi, H., Sahu, P.K., Nanda, S. (eds) Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—GEO-TRAENV-WRM. Lecture Notes in Civil Engineering, 207, Springer, Singapore. https://doi.org/10.1007/978-981-16-7509-6_23. (Scopus) 3. Sasmita, S., **Kumar, D.B.,** 2022. Monitoring of PM10 Aerosols in Outdoor Environment During Diwali Festival Over Bhubaneswar. In: Das, B.B., Hettiarachchi, H., Sahu, P.K., Nanda, S. (eds) Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—GEO-TRA-ENV-WRM. Lecture Notes in Civil Engineering, vol 207. Springer, Singapore. https://doi.org/10.1007/978- 981-16-7509-6_67. (Scopus) 4. Sasmita, S., **Kumar, D. B.,** 2021. Seasonal variability of satellite-derived aerosol optical depth in smart city Bhubaneshwar. (In Das, B, Barbhuiya, S, Gupta, R, Saha, P (eds) Recent Developments in Sustainable Infrastructure Lecture Notes in Civil Engineering, 75, Springer. (Scopus)

Details of Short-Term Training Programs / Faculty Development	1. Participated in One Week National Level Faculty Development on “Essential Mathematics for Data Science and Machine Learning”. Organized by the Department of Artificial Intelligence and Machine Learning, Chaitanya Bharathi Institute of Technology (Autonomous), Hyderabad – 500 075, Telangana, India, from 5th to 9th February 2024. 2. Participated in One Week National Level Faculty Development Programme on “Current Science in Science and Developments in Nanotechnology organized by the Department of Biotechnology, Chaitanya Bharathi Institute of Technology (Autonomous) in association with Microbiologists Society India (MBSI) from 29th January 2024 to 2nd February 2024. 3. Participated in online training course on “Repair and Rehabilitation of Structures of Hydro Power Projects” organized by C. W. & P. R. S., Pune during 13th– 14th December 2023. 4. Participated in 30 hours Live Training (FDP) Program on Python and IoT held From 7th Aug 2023 to 28th Aug 2023 organized by ExcelR Edtech Pvt. Ltd. 5. Participated in 5 Days online International Faculty Development Program on “NLP and ChatGPT APPLICATIONS” from 14th Aug to 19th Aug 2023 organized by SECAB Institute of Engineering & Technology in Collaboration with ExcelR Edtech Pvt. Ltd. 6. Participated in a three day In-house MATLAB training programme on “Simulink, HDL code generation, Medical Imaging, Optimization, Electric Vehicle, Machine & Deep Learning Toolboxes” from 03-05 July, 2023 organised by Department of ECE and EEE, Chaitanya Bharathi Institute of Technology (A), Hyderabad. (offline) 7. Participated in 30 Hours International Faculty Development Program on “Deep Learning for NLP and Computer Vision” from 10-28 July, 2023 organized by Chaitanya Bharathi Institute of Technology (CBIT) in Collaboration with ExcelR. 8. Participated in a one week national level faculty development programme on “Recent Trends in Data Science for Engineering” from 26-30 June, 2023 organised by Department of Information Technology, Chaitanya Bharathi Institute of Technology (A), Hyderabad in association with CBIT IEEE-Robotics and Animation Society (RAS) student branch chapter. 9. Participated in 5-day’s online International Faculty Development Program on “Data Analyst” from 19-23 June, 2023 organised by Andhra Pradesh State Skill Development Corporation (APSSDC) in collaboration with ExcelR. 10. Participated in Two-day Faculty In House Training/Induction Program held on 11th & 18th March, 2023 organized by IQAC cell CBIT(A), Hyderabad, 11. Participated in Five day online Faculty Development Program on “Current Research Trends in Field of Civil Engineering” from 16-20 January, 2023 organised by Department of Civil Engineering in association with Academic Staff College, OP Jindal University.

International/National Journals

1. Babu, P., Verma, V., Khadanga, Shailendra Kumar Yadav, **Dudam Bharath Kumar** & Ayushi Gupta, 2024. Exploring the association between air pollution and spontaneous abortion through systematic review and bibliometric analysis. Air Qual Atmos Health (2024). (SCI, Q2, Impact Factor: 5.8) https://doi.org/10.1007/s11869-023-01491-1
2. Sasmita S., **Kumar D. B**., Babu, P., (2022). Assessment of sources and health impacts of PM10 in an urban environment over eastern coastal plain of India, Environmental Challenges, 7, 100457. (Scopus, Cite Score:3.8)
3. Sasmita, S., **Kumar, D.B.,** (2022). Retrieval of Aerosols Extinction Coefficient from CALIPSO Satellite Observations: a case study over Bhubaneswar. IOP, Earth and Environmental Science, 1032 012041. (Scopus, Impact Score: 2.88)

4. **Dudam Bharath Kumar**, S. Verma (2016), Potential emission flux to aerosol pollutants over Bengal Gangetic plain through combined trajectory clustering and aerosol source fields analysis, Atmos. Res., 178-179, 415-425. http://dx.doi.org/10.1016/j.atmosres.2016.04.012 (SCI, Impact Factor: 5.5)
5. **Dudam Bharath Kumar**, Shubha Verma, Olivier Boucher and Rong Wang (2018), Constrained simulation of aerosol species and sources during pre- monsoon season over India Subcontinent, Atmos. Res., 214, 91-108. http://dx.doi.org/10.1016/j.atmosres.2018.07.001 (SCI, Impact Factor: 5.5)
6. Manish Kumar, K. Parmar, **Dudam Bharath Kumar**, A. Mhawish, D. M. Broadley, R. K. Mall and T. Benarjee (2018), Long-term aerosol climatology over Indo- Gangetic Plain: Trend, prediction and potential source fields, Atmos. Environ., 180, 37-50. http://dx.doi.org/10.1016/j.atmosenv.2018.02.027 (SCI, Impact Factor: 5.0)
7. Verma, S., B. Priyadharshini, S. Pani, **D. B. Kumar**, A. Faruqi, S. Bhanja, and M. Mandal (2016), Aerosol extinction properties over coastal West Bengal Gangetic plain under inter-seasonal and sea breeze influenced transport processes, Atmos. Res., 167, 224–236. http://dx.doi.org/10.1016/j.atmosres.2015.07.021 (SCI, Impact Factor: 5.5).
8. Verma, S., D. Manigopal Reddy, S. Ghosh, **D. Bharath Kumar** and A. Kundu Chawdhury (2017), Estimates of spatially and temporally resolved constrained black carbon emission over the Indian region using a strategic integrated modelling approach, Atmos. Res. 195, 9-19.(SCI, Impact Factor: 5.5)
9. Verma, S., Olivier Boucher, S. Ghosh and **Dudam Bharath Kumar** (2018), Data for: Dataset of pre-monsoon aerosol species optical depth and concentration estimated from constrained simulation approach over the Indian subcontinent, Data-in-Brief, Mendeley Data, v1. http://dx.doi.org/10.17632/3f27kndz44.1 (Scopus & ESCI, Impact Factor: 1.2)

International/National Conferences

1. **Dudam Bharath Kumar**, P. Nithin Varma, K. Mahitha, D. Harshith Reddy, Prediction of air pollution from constrained air quality model and machine learning techniques, International Conference on Waste Recycling and Environmental Technology (WRET-2024), February 2024.
2. Sushree Sasmita, **Dudam Bharath Kumar,** Rashmi Ranjan Behera, Priyadharshini Babu, Health risk analysis of particle-bound metals in using Air-Q+ model during Diwali festival in a smart city Bhubaneswar, International Conference on Waste Recycling and Environmental Technology (WRET-2024), February 2024.
3. B. Jayadeep Angshuman Das, **Dudam Bharath Kumar**, Assessment of Water Quality Index (WQI) and Pollution Mapping of Pashmalyam Lake of Patancheru Industrial Belt Hyderabad, International Conference on HYDRO 2023 INTERNATIONAL, NIT Warangal, December 2023.
4. Angshuman Das, **Bharath Kumar Dudam**, Koteswaraarao Jadda, Sai Vamsi Vinukonda, Nikitha Godisela, Improvement of Hydraulic and Aggregate Properties of Locally Available Lump Soil Using Rice Husk Ash and Lime, International Conference on Geotechnical Advances In Sustainable Infrastructure Development And Risk Reduction, IIT Roorkee, India, December 2023.
5. **Dudam Bharath Kumar,** Classification of air-mass trajectories using artificial intelligence technique: Fuzzy c-mean Clustering, International Conference on Robotics and Cyber Physical Systems (ICRCPM 2023)", Chaitanya Bharathi Institute of Technology (A), Hyderabad, Telangana, India, April, 2023.
6. **Dudam Bharath Kumar** and Sushree Sasmita, Improved predictions of aerosol constituents with CALIPSO satellite observations over east-coastal city of India, 3rd International Conference on Recent Development of Sustainable Infrastructure (ICRDSI), Kalinga Institute of Industrial Technology (KIIT) deemed to be university, Bhubaneswar, India, March 2023.
7. Sushree Sasmita and **Dudam Bharath Kumar**, Sources and health risk assessment of nitrogen dioxide (NO_2) over eastern India, 3rd International Conference on Recent Development of Sustainable Infrastructure (ICRDSI), Kalinga Institute of Industrial Technology (KIIT) deemed to be university, Bhubaneswar, India, March 2023.
8. Sushree Sasmita and **Dudam Bharath Kumar**, Study of Wastewater Treatment in Hindustan Coca-Cola plant at Khurda, 3rd International Conference on Advanced Technologies For Industrial Pollution Control (ATIPC-2022), Indian Institute of Engineering Science and Technology, Shibpur Howrah - 711103, West Bengal, India, December 2022.
9. **Dudam Bharath Kumar** and Sushree Sasmita, Testing the Skill of Hybrid Model Approach for Aerosol Estimates, 2nd International Conference on Recent Development of Sustainable Infrastructure (ICRDSI), Kalinga Institute of Industrial Technology (KIIT) deemed to be university, Bhubaneswar, India, December 2020.
10. Sushree Sasmita and **Dudam Bharath Kumar**, Monitoring of PM10 Aerosols in Outdoor Environment during Diwali Festival over Bhubaneswar, 2nd International Conference on Recent Development of Sustainable Infrastructure (ICRDSI), Kalinga Institute of Industrial Technology

(KIIT) deemed to be university, Bhubaneswar, India, December 2020.

11. Sushree Sasmita and **Dudam Bharath Kumar**, Seasonal Variability of Satellite-Derived Aerosol Optical Depth in Smart City, Bhubaneshwar, International Conference on Recent Development of Sustainable Infrastructure (ICRDSI), Kalinga Institute of Industrial Technology (KIIT) deemed to be university, Bhubaneswar, India, December 2019.
12. **Dudam Bharath Kumar** and S. Jayalekshmi, Study on Effect of Temperature on Adsorption of MSW Leachate, International Conference on Sustainable Waste Management (IconSWM), Kalinga Institute of Industrial Technology (KIIT) deemed to be university, Bhubaneswar, India, November 2019.
13. **Dudam Bharath Kumar**, Study on Improvement of Strength in Weak Soil using Rice-Husk, International Conference on Sustainable Waste Management (IconSWM), Kalinga Institute of Industrial Technology (KIIT) deemed to be university, Bhubaneswar, India, November 2019.
14. Bittu Ghosh, **Dudam Bharath Kumar**, Mohibulla, Role of GHG Emissions from Livestock Waste Contributing to Climate Change over India: A short review, International Conference on Sustainable Waste Management (IconSWM), Kalinga Institute of Industrial Technology (KIIT) deemed to be university, Bhubaneswar, India, November 2019
15. **Dudam Bharath Kumar**, Satellite based observations for Surface level Urban Heat Island over Bhubaneswar: A case study, 5th International Conference on Countermeasures to Urban Heat Islands (IC2UHI), International Institute of Information Technology - Hyderabad, India, December 2019. doi: 10.37285/bsp.ic2uhi.13
16. Sukanya Dasgupta, Nilanjana Roy, **Dudam Bharath Kumar,** Use Urban Green as a Mitigation Strategy to Combat Urban Heat Island Effect: A Case of Puri-Cuttack Road, Bhubaneswar, Odisha, 5th International Conference on Countermeasures to Urban Heat Islands (IC2UHI), International Institute of Information Technology - Hyderabad, India, December 2019. doi:10.37285/bsp.ic2uhi.43
17. **Dudam Bharath Kumar**, S. Sushree and H. Kumar, Analysis of seasonal variation and sources of PM10 aerosols over eastern coast of India, International Conference of China India Association for Atmospheric Scientists (CIAAS), IIT- Delhi, New Delhi, India, March 2019.
18. **Dudam Bharath Kumar**, Sasmita Sushree (2018), Sources and Characteristics of Aerosol over Smartcity Bhubaneswar in Winter and Summer, Bulletin of Indian Aerosol Science and Technology Association (IASTA), New Delhi, India, November 2018, 23 (1&2) 603.
19. **Dudam Bharath Kumar**, S Choudhary, Episodic Analysis of Biomass Burning Aerosols over east-coast India: Effect of Regional and Long-range Transport, International Conference on Atmospheric Composition and Climate Change (ICACCCA) conference, Malaysia, March 2018.
20. Manish Kumar, K. Parmar, **Dudam Bharath Kumar**, Alaa Mhawish, T. Benerjee, Long term aerosol climatology over Indo-Gangetic Plain on Asian Aerosol Conference (AAC), Seoul, South Korea, July 2017.
21. **D. Bharath Kumar**, S. Verma, O Boucher, R Wang, Constrained simulations of aerosol constituents and their sources of origin over Indo-Gangetic basin on UPCAR conference, Tirupati, Andhrapradesh, June 2017.
22. **Dudam Bharath Kumar**, S. Verma, I. Chakraborty, Constrained aerosol simulation of sources, chemical and optical properties of winter time aerosol pollution over India on AC3 Conference, Darjeeling, West Bengal, April 2017.
23. S. Verma, **D. Bharath Kumar**, O Boucher, R Wang, Improved prediction of aerosol optical and chemical properties over Indian subcontinent from Page 4 of 5 constrained aerosol simulation: implication to radiative effects on AC3 Conference, Darjeeling, West Bengal, April 2017.
24. **Dudam Bharath Kumar** and Shubha Verma, Simulations of aerosol constituents and their sources of origin over Indo-Gangetic plain (IGP) to Himalayan foothills: a new perspective of GCM estimates in American Geophysical Union (AGU) Conference, San Francisco, United States of America, December 2016, ID– 171023.
25. Indrajit Chakraborty, Shubha Verma, and **D. Bharath Kumar**, Black carbon induced glacial melt runoff prediction using validated modelled estimates at Himalaya-Hindu Kush region in American Geophysical Union (AGU) Conference, San Francisco, United States of America, December 2016, ID–175075.
26. Shubha Verma, Mani Gopal Reddy, and **Dudam Bharath Kumar**, Evaluating the latest estimates of spatially and temporally resolved gridded black carbon emission over Indian region in a strategic integrated modeling approach in American Geophysical Union (AGU) Conference, San Francisco, United States of America, December 2016, ID–182643.
27. **Dudam Bharath Kumar**, S. Verma (2016), Evaluation of aerosol constituents from restrained

simulations in general circulation model over India, Bulletin of Indian Aerosol Science and Technology Association (IASTA), 22 (1 & 2) 349-351.

28. I. Chakraborty, S. Verma and **D. Bharath Kumar** (2016), Prediction of black carbon deposition and corresponding melt runoff over snow packed regions of the Himalayas in Indian Aerosol Science and Technology Association (IASTA) Conference, Ahmedabad, December 2016, 22 (1 & 2) 663-666.
29. **Dudam Bharath Kumar** and Shubha Verma, Combined trajectory clustering and aerosol fields analysis to evaluate the potential emission flux to aerosol pollutants in an urban and semi-urban atmospheres in eastern India in American Geophysical Union (AGU) Conference, San Francisco, December 2015, A21A- 0093.
30. Sanjeev Dasari, Shubha Verma, **D. Bharath Kumar**, Olivier Boucher, In A general circulation model study of impact of black carbon aerosols over Hindu Kush-Himalayan (HKH) sites: implications on glacier snow melt processes and cryospheric change on International Glaceological Society (IGS) Conference, Kathmandu, March 2015, 71A1417.
31. **Dudam Bharath Kumar,** Y. Akhila, S. Verma (2014). Analysis of sensitivity of black carbon aerosol properties using a novel emission optimization approach, Bulletin of Indian Aerosol Science and Technology Association (IASTA), 21 (1 & 2), 327-328.
32. **Dudam Bharath Kumar**, S. Verma (2014), A Novel Source-Receptor Analysis of Winter Monsoon Aerosols over Eastern India, Bulletin of Indian Aerosol Science and Technology Association (IASTA), 21 (1 & 2), 324-326.
33. **Dudam Bharath Kumar** and Shubha Verma, Sensitivity of Absorbing Aerosol Parameters using Novel Optimization Approaches over India main-land on 8th Asian Aerosol Conference (AAC), Sydney, December 2013, B-37.
34. B Priyadharshini, **D. Bharath Kumar**, S Verma, Impact of biomass burning on the seasonal variability of aerosol optical characteristics over an outflow region into Bay of Bengal on 8th Asian Aerosol Conference (AAC), Australian Technology Park, Sydney, December 2013.
35. **Dudam Bharath Kumar** and Shubha Verma (2012). Validation of aerosol properties from Tiger-z IOP measurements with GCM simulations, during pre- monsoon over Kanpur, Bulletin of Indian Aerosol Science and Technology Association (IASTA), 20 (1 & 2), 360-364.