

Curriculum Vitae

DR. MAYA KUMARI

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“I am a professional with diverse experience and a reputation for success in the field of Geospatial Technology and Environment Management with the experience of 11 years”

TECHNICAL PROFICIENCY:

- Software Proficiency: ERDAS IMAGINE, ArcGIS, QGIS, SPSS, Google Earth Engine, Fragstats
- Geospatial Mapping and Modeling
- Geoprocessing with ESRI Model Builder
- Applications of Remote Sensing and GIS in Resources Monitoring, Management, Mapping and Modeling.
- Digital Image Processing and Satellite Image Enhancement
- Digital Cartography
- Global Positioning System (GPS)

WORK EXPERIENCE - ACADEMICS

- Presently, working as Assistant Professor (III) with Amity School of Natural Resources & Sustainable Development, Amity University, Noida (November 2010 – present)
 - Taught courses like Digital Image Processing; Cartography; Global Positioning system; Spatial data analysis and Modelling; Application of Remote Sensing and GIS in Forestry, Agriculture and Environmental issues
 - Taught compulsory Environmental Sciences course by UGC at Under-Graduate level in various departments in the University.
 - Guided students for dissertation work on topics related to role of Remote Sensing and GIS in Environmental resources mapping.
 - Prepared proposals for organization of training/workshops submitted to MoEF&CC and various other funding agencies.
 - Assisted in the preparation of study material on various topics for IAS/IFS training workshops organized by Amity University.
 - Nodal officer of the institute various Ranking and Accreditation activities
 - Administrative activities related to student support and welfare.
 - Internal Quality Assurance Cell Coordinator

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EDUCATIONAL QUALIFICATIONS

Ph.D.	2019	Guru Gobind Singh Indraprastha University, New Delhi
M.Tech Remote Sensing	2008-2010	Birla Institute Of Technology, Mesra , Ranchi
M.Sc. Environmental Science	2006-2008	Banaras Hindu University
B.Sc. Biotechnology	2003-2005	Rani Durgavati Vishwavidyalaya
XII (CBSE)	2002	DAV Public School, Bina, Sonebhadra, UP
X (CBSE)	2000	DAV Public School, Kakri, Sonebhadra,UP

PROJECTS UNDERTAKEN:

- Co PI of “Protocol for Rejuvenation of springs in Uttarakhand with due preparedness for climate change”. Sponsored by National Mission On Himalayan Studies (NMHS). Medium Grant Project. Received in July 2020.

RESEARCH PAPERS

- **Kumari, M.,** Kumar, D. & Vaishnavi Dynamic drought risk assessment and analysis with multi-source drought indices and analytical hierarchy process. *Int. J. Environ. Sci. Technol.* (2022). <https://doi.org/10.1007/s13762-022-04041-x>
- **Kumari, M.,** Somvanshi, S., & Ulwafa, B. (2021, June). Multivariate and spatial analysis of reduced urban air pollution during COVID-19 pandemic in Delhi. In *Forum Geografic* (Vol. 20, No. 1).
- Sharma, Richa, Lolita Pradhan, **Maya Kumari,** and Prodyut Bhattacharya. "Assessing urban heat islands and thermal comfort in Noida City using geospatial technology." *Urban Climate* 35 (2021): 100751.
- Somvanshi, S. S., & **Kumari, M.** (2020). Comparative analysis of different vegetation indices with respect to atmospheric particulate pollution using sentinel data. *Applied Computing and Geosciences*, 7, 100032.
- Somvanshi, S. S., Kunwar, P., De Vries, W., **Kumari, M.,** & Zubair, S. (2020). Unveiling Spatial Variation in Salt Affected Soil of Gautam Buddha Nagar District Based on Remote Sensing Indicators, *Journal of Landscape Ecology*, 13(1), 61-84. doi: <https://doi.org/10.2478/jlecol-2020-0005>
- **Kumari, M.,** Sarma, K., & Sharma, R. (2019). Using Moran's I and GIS to study the spatial pattern of land surface temperature in relation to land use/cover around a thermal power plant in Singrauli district, Madhya Pradesh, India. *Remote Sensing Applications: Society and Environment*, 100239.

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- **Kumari, M.**, & Sarma, K. (2018). Seasonal Variation of Ambient Air Quality Under the Impact of Coal Based Thermal Power Plant Emission Around Sasan Ultra Mega Thermal Power Plant, Madhya Pradesh. *Indian Journal Environment Protection*, 38 (5): 371-378.
- **Kumari, M.**, & Sarma, K. (2017). Changing trends of land surface temperature in relation to land use/cover around thermal power plant in Singrauli district, Madhya Pradesh, India. *Spatial Information Research*, 25(6), 769-777.
- **Kumari, M.**, & Sarma, K. (2017). Spatio–Temporal Dynamics of Land Use/Cover around a Thermal Power Plant in Singrauli District, Madhya Pradesh, India. *Journal of Applied Geology and Geophysics* 5 (4), 8-13
- **Kumari M.**, Sharma R. (2015). Remote Sensing & Land Use. *Amity Journal of Energy & Environment Studies*, Vol.1, No. 1; ISSN 2454/7778
- Sharma R., **Kumari M.** (2015). Effects of climate change on agriculture. *Amity Journal of Energy & Environment Studies*, Vol.1, No. 1; ISSN 2454/7778
- **Kumari, M.**, Das, A., Sharma, R., & Saikia, S. (2014). Change detection analysis using multi temporal satellite data of Poba reserve forest, Assam and Arunachal Pradesh. *International Journal of Geomatics and Geosciences*, 4(3), 517.

CONFERENCE AND MONOGRAPH

- Rana, D., Kumari, M., & Kumari, R. (2021). Quantitative Estimation of Land Surface Temperature and Its Relationship with Land Use/Cover around Sonapat District, Haryana, India. *Engineering Proceedings*, 8(1), 31.
- Sharma Richa., Pradhan Lolita, **Kumari Maya**, Bhattacharya Prodyut "Comparative Analysis of Different Vegetation Indices of Noida City Using Landsat Data." *Advances in Energy and Environment*. Springer, Singapore, 2021. 209-221.
- Sharma Richa., Pradhan Lolita, **Kumari Maya**, Bhattacharya Prodyut. "Assessment of Carbon Sequestration Potential of Tree Species in Amity University Campus Noida." *Presented at the 1st International Electronic Conference on Forests*. Vol. 15. 2020.
- Syed Zubair, Burhan ulWafa, Shivangi S. Somvanshi, **Maya Kumari**, "Comparative analysis of different satellite based water indices for the assessment of water bodies.", National conference on Recent trends in Environmental Pollution & Disaster Risk Reduction, 6-7 February 2020, Organised by FICCI in New Delhi.
- Sayed Zubair, Shivangi Somvanshi, **Maya Kumari**, "Spatial and temporal distribution of Aerosol Absorption index over the Northern region of Indian Subcontinent" ESRI India User Conference 2019, 28-29 August 2019 in Gurugram, NCR.
- Rashid Faizy, **Maya Kumari**, Shivangi Somvanshi, "Changing trends of land surface temperature in relation to vegetation cover of gurugram district", ESRI India User Conference 2019, 28-29 August 2019 in Gurugram, NCR.
- **Kumari Maya**, Kiranmay Sarma and Richa Sharma 2019; "Study of Seasonal Variation of Soil Parameters and its Quality around Essar Mahan Thermal Power Plant in Singrauli District, Madhya Pradesh India; XIII International Geographical Union (IGU) –India; 19-21 October, 2019, Central University Haryana, Haryana
- **Kumari Maya**, Kiranmay Sarma and Richa Sharma 2019; To study the spital apttern of Land surface temperature in Realtion to LULC around a Thermal Power Plant in Singrauli, District, Madhya Pradesh, India using Moran's I and GIS; International Conference on Smart Cities-Opportunities & Challenges: 14-16 March 2019, Jamia Millia Islamia, New Delhi.

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- **Kumari Maya**, Kiranmay Sarma, 2017; Change Vector Analysis: An Approach For Detecting Forest Change around Thermal Power Plant in Singrauli District, Madhya Pradesh, India; 38th Asian Conference on Remote Sensing, Conference Proceedings; 23-27 October, 2017, New Delhi.
- Karmakar Soubhik, Singh Prafull and **Kumari Maya**, 2017; Geoinformatics Approach To Delineate Flood Hazard Zones of Murshidabad District, West Bengal, India; **38th Asian Conference on Remote Sensing**, Conference Proceedings; 23-27 October, 2017, New Delhi.
- **Kumari Maya**, Kiranmay Sarma and Richa Sharma 2017; Quantitative estimation of Land Surface Temperature and its relationship with Land Use/Cover around Mahan Essar Thermal Power Plant in Singrauli District, Madhya Pradesh, India; 37th INCA International Congress 2017, Conference Proceedings; 3-5 November, 2017, Dehradun.
- Karmakar Soubhik, Singh Prafull and **Kumari Maya**, 2017 Spatio temporal changes in urban land use of Kolkata and its surrounding periphery, using remote sensing technique; 37th INCA International Congress 2017, Conference Proceedings; 3-5 November, 2017, Dehradun.
- Gupta Ankit, Swain Sarita & **Kumari Maya**, 2014; Urban Growth Trend Analysis of Indore City (2005 – 2014) through Index Based Models; 15th ESRI India User Conference 2014, Proceedings.
- **Kumari Maya**; Spatio Temporal Assessment of Land degradation pattern A Geoinformatics approach; Lambert's Publishing House; ISBN No 978-3-659-15313-6
- **Kumari Maya**, Gupta Ankita; Land Use-Land cover change detection through Remote Sensing technique "A case study of Ahmadabad – Mumbai Coastal Stretch" India; Lambert's Publishing House; ISBN No 978-3-659-21705-0
- **Kumari Maya**, Sinha B.K.P, 2012; Integration of Spectral Indices and Geo-Spatial Attributes for Spatio-Temporal Assessment of Land Degradation Patterns, 13th ESRI India User Conference 2012, Poster presentation.

BOOK

- Somvanshi Shivangi, **Kumari Maya**; An introduction to Remote Sensing and its Application; Kataria sons Publication; ISBN 978-81-906919-0-

BOOK CHAPTER

- Basnett, T., **Kumari, M.**, Sharma, R., & Kumar, S. Change vector analysis in relation to terrain parameters using temporal remote sensing satellite data. *and Predictive Analysis for Medical Science*, 257.
- Sharma Richa., Pradhan Lolita., **Kumari Maya.**, Bhattacharya Prodyut. (2021) Comparative Analysis of Different Vegetation Indices of Noida City Using Landsat Data. In: Al Khaddar R., Kaushika N.D., Singh S., Tomar R.K. (eds) *Advances in Energy and Environment. Lecture Notes in Civil Engineering*, vol 142. Springer, Singapore. https://doi.org/10.1007/978-981-33-6695-4_20
- **Kumari, Maya**, Shivangi S. Somvanshi, Syed Zubair (April 2020), "Air Pollution Modelling of Mumbai Region using Remote Sensing and GIS Technique" Chapter (Book: *Challenges and Future Directions in Remote Sensing and GIS Science*), Publisher: Springer, The Netherland. (Accepted on 20th April 2020)

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- Sarma, Kiranmay., & **Kumari, Maya**. (2020). Unit-15 Geoinformatics for climate change adaptation and disaster risk reduction. Indira Gandhi National Open University, New Delhi.
- Gupta, Ankit, **Kumari, Maya** and Rao, B.K., 2017. Spatial and Temporal Variability Analysis Using Modelled Precipitation Data in Upper Catchment of Chambal Basin. Water Resources in Arid Areas: The Way Forward, p.75.

PROFESSIONAL/INSTITUTIONAL MEMEBERSHIP

- **Profession membership of InSc (Institute of Scholars)** with lifetime validity, an ISO 9001:2015 certified institute by international accurate certification, accredited by UASL.
- Life Member of Indian Cartographic Association (INCA) LM2911
- Life Member of Indian Society of Remote Sensing (ISRS)/ LG4824

TRAINING PROGRAMS

- Participated in Off-campus outreach Certificate Programme on “Geoinformatics in forest fire management” organised by Indian Institute of remote Sensing, Dehradun (2nd April 2018 to 7th April, 2018)
- Participated in Off-campus outreach Certificate Programme on “Remote Sensing and GIS Applications in Carbon Forestry” organised by Indian Institute of remote Sensing, Dehradun (16th Feb 2018 to 10th March, 2018)
- Participated in Off-campus outreach Certificate Programme on “Hyperspectral Remote Sensing and its Applications” organised by Indian Institute of remote Sensing, Dehradun (19th February 2018 to 13th March, 2018)
- Participated in Off-campus outreach Certificate Programme on “Overview of RS & GIS Applications for Natural Resource Management” organised by Indian Institute of remote Sensing, Dehradun (13th November 2017 to 1st December, 2017)
- Completed six weeks ESRI’s online MOOC on ‘Going Places with Spatial Analysis’ (May 10, 2016 – June 20 2016)
- Completed four weeks ESRI’s online MOOC on ‘Earth Imagery at Work’ (October, 2016)
- Completed four weeks ESRI’s online MOOC on ‘The Location Advantage’ (October,2016)
- Completed six weeks ESRI’s online MOOC on ‘Do it yourself Geo App’ (August, 2016)
- Attended one day National Conference on ‘Earthquake Disaster Mitigation in India’ organized by FICCI and NIDM, New Delhi (10 July 2015)
- Attended six weeks online basic refresher course on ‘*Comprehensive Disaster Risk Management Framework*’ organized by National Institute of Disaster Management (NIDM), New Delhi in collaboration with the World Bank (GFDRR), Washington (16th February 2015 - 26th March 2015).
- Attended a number of Faculty Development programmes (FDPs) organized by Amity Academic Staff College (AASC)

FACULTY DEVELOPMENT PROGRAM ORGANISED

- **Faculty Coordinator**, Member of **Organising Committee** of Five-day Faculty Development Program on “**Recent Advancement in Environmental Sustainability and**

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Conservation Strategies", held on 17th – 21st May 2021 organized by Amity Academic Staff College & Natural resources and Environmental Sciences Domain of Amity University Uttar Pradesh.

- **Faculty Coordinator**, Member of **Organising Committee** of Five-day Faculty Development Program on "**Advances in Teaching and Research in the Field of Green Technology and UN Sustainable Development Goals**", held on 31st May to 5th June 2021 organized by Amity Academic Staff College & Natural resources and Environmental Sciences Domain of Amity University Uttar Pradesh.

OTHER PROFESSIONAL AND EDITORIAL ACTIVITIES

- Reviewer of various journals of repute. (Elsevier, Springer and MDPI)
- **NAAC Coordinator** for the institute (ASNRSD) in 2012 and 2019.
- **Quality Support and IQAC Member Secretary** of the institute (ASNRSD) since 2015.
- **Member of the Board of Syllabus (BOS)** of Amity School of Natural Resources & Sustainable Development (ASNRSD) and Amity Institute of Geoinformatics and Remote Sensing (AIGIRS), Amity University. (Responsible for designing and modifying the course structure of UG and PG programmes) since 2012.
- **Examination Co-ordinator** Amity School of Natural Resources & Sustainable Development (ASNRSD), Amity University (Responsible for all the examination related activities of PG programmes)

NUMBER OF THESIS / DISSERTATION SUPERVISED

- 36 M.Sc. Dissertation
- 6 MTech Dissertation
- 4 Ph.D. Scholars (on-going)