

Curriculum Vitae

Name: **Dr. (Ms) Sulochana Shekhar FRGS**

Designation: **SR.Professor (substantive post)**

Controller of Examinations (on Deputation)

Employer Address: Department of Geography
School of Earth Sciences
Central University of Tamil Nadu
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h-index:17 i10-index: 34

ACADEMIC QUALIFICATIONS

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| Fulbright-Nehru IEAS Award (2020) | : As a Fulbright Fellow, Visited George Washington University, Washington DC., USA (Oct 2022) |
| Endeavour Research Fellowship (Aug2016 - Dec2016) | : Received the Australian Government- Endeavour Research fellowship and worked at University of Tasmania, Tasmania, Australia |
| Commonwealth Academic Fellowship (2013-14) (Sep 2013 to Dec 2013) | : Worked on SDSS at University College of London, London, United Kingdom |
| Erasmus Post Doctorate Fellowship (Sep2010 - Feb2011) | : Received European Commission Scholarship for Post- Doctoral Research and worked at ITC (University of Twente), The Netherlands |
| M.Sc. Geographic Information Science& System (Aug 2010) | : From University of Salzburg, Austria (UNIGIS M.Sc.) |
| Ph.D. in Geography (April 2006) | : Awarded on the Thesis entitled "Monitoring urban sprawl of Pune by Remote sensing and GIS techniques" under the guidance of Dr Jaymala Didee, Professor (Retd), Department of Geography, University of Pune, Pune. |

Master of Education (May 1998)	: From Annamalai University, Chidambaram, TN
Bachelor of Education (May 1993)	: From Bharathiyar University, Coimbatore, TN
Master of Science in Geography 1992)	: From Madurai Kamaraj University, Madurai, TN (April
Bachelor of Science in Geography (April 1990)	: From Madurai Kamaraj University, Madurai, TN

ACADEMIC DISTINCTIONS

University Rank Holder (Gold Medallist) in Under Graduation (1st rank - B.Sc. Geography)

University Rank Holder (Gold Medallist) in Post-Graduation (M.Sc. Geography) Awarded the Dr.M.Varadarajan Memorial Endowment Medal for securing the first rank in M.Sc. (Geo)

University Rank Holder (Second in Merit) in under graduation (B.Ed.) Awarded the National Scholarship by the Ministry of Human Resources Development, Government of India for securing 2nd rank in B.Ed.

Qualified for the National Eligibility Test for Lectureship conducted by the University Grants Commission in December 1998.

Qualified for the State Level Eligibility Test for Lectureship of Tamil Nadu State in March 1998

Received Best Paper Award at INCA XXXIV International Conference, Dec 2014.

Major scientific fields of interest

: *Urban Geography, Urban GIS, Applications of Geospatial techniques in Slum mapping, Spatial Decision Support System, Urban Green space, and other urban-related issues*

Work experience

Senior Professor (From April 2025 onwards)	: Department of Geography, School of Earth Sciences, Central University of Tamil Nadu, Thiruvarur.
Professor (From Aug 2017 to April 2025)	: Department of Geography, School of Earth Sciences, Central University of Tamil Nadu, Thiruvarur.
Professor (From July 2014 to Aug 2017)	: Department of Geography, School of Earth Sciences, Central University of Karnataka, Kalaburagi.

Associate Professor (From July 2011 to July 2014)	: Department of Geography, School of Earth Sciences, Central University of Karnataka, Kalaburagi.
Reader (From Aug 2009 to July 2011)	: Department of Geography, Education Branch National Defence Academy, Khadakwasla, Pune.
Assistant Professor (From Sep 2008 to Aug 2009)	: Department of Geography, University of Pune (SPPU) Pune
Lecturer (From Sep 2000 to Sep 2008)	: Department of Geography, Education Branch National Defence Academy, Khadakwasla, Pune.
Post Graduate Teacher in Geography (From Dec 1993 to Sep 2000)	: Kendriya Vidyalaya (MEG & CENTRE) Bangalore. (KVS, M/o Edn, GOI)

List of publications:

1. Sulochana Shekhar (2001) Colonial urban development in India - A conceptual clarification, Transactions of the Institute of Indian Geographers, 2001, Vol 23 No: 1 & 2, Page 29 – 38, 10 pages.
2. Sulochana Shekhar (2004) Urban sprawl assessment - Entropy approach, GIS Development, May 2004, Vol 8 issue 5, Page 43 – 48. 6 Pages.
3. Sulochana Shekhar (2005) Modelling Urban Development with Fuzzy Logic and cellular automata, Asian Journal of Geoinformatics, Vol 6 No 1 2006. Page 3-10. 8 pages.
4. Sulochana Shekhar (2007) Changing Space of Pune- A GIS Perspective, a paper published in the Net. Full paper is available in www.gisdevelopment.net.
5. R Nijagunappa, Sulochana Shekhar, B. Gurugnanam, PLN Raju, and Prabir DE (2007) *Road network analysis of Dehradun city using high resolution satellite data and GIS*, Photo nirvachak, Journal of ISRS, Vol 33 No 3, 2007. Page 267-274, 8 pages.
6. Gurugnanam, M Suganya, Sulochana Shekhar (2007) Ground water quality studies in Thirumanimuttar sub basin, Salem dist, Tamil nadu, India. paper published in Eco-Chronicle Vol 2 No 1, 2007. Page 27-32, 6 pages.
7. M. Suganya, B. Gurugnanam, S.V. Lingewara Rao, Sulochana Shekhar (2008) Statistical application of hydro geochemistry of Upper Thirumanimuttar sub basin, Tamil Nadu, India, Journal of Applied Hydrology, Vol. XXI No.1 & 2. 2008. Pp. 82 - 87
8. Shekhar Sulochana (2008) Ground Truth Verification in Urban Planning and Management - A Case Study of Pune City, October 16, 2008. Available at SSRN: <http://ssrn.com/abstract=1285442>

9. Sulochana Shekhar (2012) Modelling the Probable Growth of Slums by using Geoinformatics, International Journal of Innovations and Development, Volume 1, Issue 8, August 2012. ISSN 2277 – 5390
10. Sulochana Shekhar (2012) Detecting Slums from Quick Bird Data in Pune using an Object-Oriented Approach, International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XXXIX-B8, 2012 XXII ISPRS Congress, 25 August – 01 September 2012, Melbourne, Australia.
11. Sulochana Shekhar (2013) Slum modelling by using Ontology and Geoinformatics: case study of Gulbarga, International Journal of Geoinformatics, Vol 9, No 2, June 2013. ISSN 1686-6576.
12. Kumar, D. and Shekhar, S. (2014) Research Prospects in Spatial Data Infrastructure for Handling Energy Linked Disaster's, IOSR Journal of Environmental Science and Food Technology (IOST-JESTFT) e-ISSN:2319-2402, p-ISSN:2319-2399, Volume 8, Issue 5 Ver. III, PP 53-67. Peer reviewed International Journal.
13. Kumar, D. and Shekhar, S. (2014) Photovoltaic Energy Assessment Using Geospatial Technology International Journal of Scientific & Technology Research (IJSTR) Volume 3, Issue 6, PP 54-60. Peer reviewed International Journal. ISSN 2277-8616
14. Sulochana Shekhar (2014) Towards Building Slum Ontology for the real stakeholders", Journal of Urban and regional studies, Journal of the UGC Centre for Advanced study, Department of Geography, Osmania University, Hyderabad, Volume 1, No1, August 2014 page 92-104.
15. Sulochana Shekhar (2014) Improving the slum planning through geospatial Decision Support system", The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XL-2, 2014 ISPRS Technical Commission II Symposium, 6 – 8 October 2014, Toronto, Canada.
16. Sulochana Shekhar (2014) A study on state of geospatial courses in Indian Universities", The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XL-8, 2014. ISPRS Technical Commission VIII Symposium, 09 – 12 December 2014, Hyderabad, India.
17. Sulochana Shekhar and Shirish Kumar (2014) Assessing the Quality of Urban Environment through Urban Neighbourhood Green Index", ISPRS TC VIII International Symposium on "Operational Remote Sensing Applications: Opportunities, Progress and Challenges", Hyderabad, India, December 9 – 12, 2014
18. Kumar, Deepak and Shekhar, Sulochana (2014) Computing Building Rooftop Solar Potential for Photovoltaics", Conference Proceedings papers of ISRS Special Interactive Session in ISPRS TC VIII Mid-Term Symposium on "Operational RS Applications: Opportunities, Progress and Challenges" held during December 9-12, 2014 at Hyderabad, India. Available at: http://www.isrsindia.in/isprs_doc/isrs_p_14.pdf
19. Kumar, Deepak and Shekhar, Sulochana (2014) Modelling Solar Energy Using Geospatial Technology, Conference Proceedings of International Conference on Geospatial Momentum for Society and Environment, CEPT University, Ahmedabad, AGSE Publishing, Germany, PP 351-364, ISBN: 978-3-943321-12-8. Available at: http://www.appliedgeoinformatics.org/downloads/AGSE2014_Full%20Paper_Preversion.pdf
20. Sulochana Shekhar (2014) Mapping for Change-Participatory Approach in Slum Planning, Indian Cartographer Vol. XXXIV: 2014 Theme: Urban Management

21. Deepak Kumar, Sulochana Shekhar (2015) Statistical analysis of land surface temperature–vegetation indexes relationship through thermal remote sensing, *Ecotoxicology and Environmental Safety* 121 (2015) 39–44 journal homepage: www.elsevier.com/locate/ecoenv
22. Sulochana Shekhar and Jaymala Diddee (2015) Spatial-Temporal Changes in Urban Fringe: A case study of Pune, *Annals of the National Association of Geographers, India*, Volume XXXV.No.2, Dec 2015.
23. Deepak Kumar, Sulochana Shekhar (2016) Linear Gradient Analysis of Kinetic Temperature through Geo statistical Approach, *Modelling Earth Systems and Environment* (Springer) ISSN 2363-6203, DOI 10.1007/s40808-016-0198-3.
24. S. Shekhar , E-H. Yoo , S.A. Ahmed , R. Haining , S. Kadannolly (2017) Analysing malaria incidence at the small area level for developing a spatial decision support system: A case study in Kalaburagi, Karnataka, India, *Spatial and Spatio-temporal Epidemiology* 20 (2017) 9–25. (IF 2.1) <https://www.sciencedirect.com/science/article/pii/S1877584516301204?via%3Dihub>
25. Sulochana Shekhar (2017) Slum Planning in India: Special reference to RAY. *The Indian Geographic Journal*, Vol 92, No.1 2017(Published in 2019).
26. Deepak Kumar, Tavishi Tewary, Sulochana Shekhar (2018) Enhanced Adaptive Technique for Surface Temperature Variability Analysis, *Iranian Journal of Science and Technology, Transactions A: Science* pp1–8 |
27. Nivedita Priyadarshini K; V. Sivashankari; Sulochana Shekhar (2019) An assessment of land cover change dynamics of GAJA cyclone in coastal Tamil Nadu, India using Sentinel 1 SAR dataset, *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, Volume XLII-3/W8, 2019 Gi4DM 2019 – GeoInformation for Disaster Management, 3–6 September 2019, Prague, Czech Republic.
28. Nivedita Priyadarshini K, Sivashankari V, Sulochana Shekhar, Balasubramani K, (2019), Assessment on the potential of multispectral and hyperspectral datasets for Land Use / Land Cover classification, (doi:10.3390/IECG2019-06211) Published: 05 June 2019 by MDPI AG in 2nd International Electronic Conference on Geosciences session Earth Sciences through Earth Observation, *Proceedings 2019* Volume 24, Issue 1, 12.
29. Sulochana Shekhar (2019) Effective management of slums- Case study of Kalaburagi city, Karnataka, India *Journal of Urban Management*, journal homepage: www.elsevier.com/locate/jum (Available online 18 September 2019). (Impact Factor: 3.9) <https://doi.org/10.1016/j.jum.2019.09.001>
30. Sulochana Shekhar and Jagannath Aryal (2019) Role of geospatial technology in understanding urban green space of Kalaburagi city for sustainable planning, *Urban Forestry & Urban Greening* Volume 46, December 2019, 126450 (Published online Sep ,2019) (Impact Factor 3.043) <https://doi.org/10.1016/j.ufug.2019.126450>
31. P K Narzary, Ambarish Kumar Rai, Shraban Sarkar, Sulochana Shekhar, Dinabandhu Mahata (2019) Demographic and Morphological changes in Kolkata City, India during 1951-2014 , *European Journal of Geography* (The journal of the European Association of Geographers), Volume 10, No 3, 2019. (Impact factor 0.567).

32. Deepak Kumar, Mandvi Misra, and Sulochana Shekhar (2020) Assessing Machine Learning Based Supervised Classifiers For Built-Up Impervious Surface Area Extraction From Sentinel-2 Images, Journal: Urban Forestry & Urban Greening, Volume 53, August 2020
33. Panneer S, Kantamaneni K, Pushparaj RRB, Shekhar S, Bhat L, Rice L. (2021) Multistakeholder Participation in Disaster Management-The Case of the COVID-19 Pandemic. Healthcare (Basel). 2021 Feb 13;9(2):203. doi: 10.3390/healthcare9020203. PMID: 33668669; PMCID: PMC7918841.
34. Nivedita Priyadarshini Kamaraj, Sulochana Shekhar, V. Sivashankari, Karuppusamy Balasubramani, Kumar Arun Prasad (2021). Detecting heat-inducing urban built-up surface material with multi remote sensing datasets using reflectance and emission spectroscopy, Remote Sensing of Environment, Volume 264, 2021, 112591
35. Sulochana Shekhar and Jagannath Aryal (2021). Monitoring urban green spaces using the geospatial technologies-A case study of Hobart, Tasmania, Australia, Transactions of the Institute of Indian Geographers, Vol. 43, No. 1, 2021.
36. Sunita, Kumar, Deepak and Shekhar, Sulochana (2021). Developing an Approach for Assessing Urban Blue-Green Spaces Towards Sustainable Urban Growth Through Retrospective Cyber Metrics Analysis of Operational Estimations Approaches" Journal of Landscape Ecology, vol.14, no.3, 2021, pp.-12 to 51. <https://doi.org/10.2478/jlecol-2021-0016>.
37. Swetha S and Sulochana Shekar (2021). Air quality analysis during the first lockdown of covid-19: a case study of Chennai Metropolitan area, The Indian Geographical Journal, Volume 96 (1) June - 2021, pp 45-59 ISSN 0019-4824
38. S. Leo George · K. Balasubramani · Sulochana Shekhar · E. Venkatesham · K. Arun Prasad , Aakriti Grover · Dinabandhu Mahata · Ashish Kumar · V. V. Ashique · R. S. Libina · Divya Rajeswari Swaminathan · A. Balasundareshwaran . K. Annaidasan (2021). A comprehensive study on preparedness, impacts, response and recovery from tropical severe cyclonic storm 'GAJA': lessons for the future, Journal of Coastal Conservation (2021) 25:58 <https://doi.org/10.1007/s11852-021-00842-3>.
39. Dinabandhu Mahata and Sulochana Shekhar (2022). Perception and knowledge about climate change and health problems: a study in Kolkata Metropolitan Region, GeoJournal <https://doi.org/10.1007/s10708-022-10629-0>, March 2022. Volume 87, pages 675–682
40. Sekar Leo George , Komali Kantamaneni , Rasmee Allat V , Kumar Arun Prasad , Sulochana Shekhar , Sigamani Panneer , Louis Rice and Karuppusamy Balasubramani,(2022). A Multi-Data Geospatial Approach for Understanding Flood Risk in the Coastal Plains of Tamil Nadu, India, Earth 2022, 3, 383–400. <https://doi.org/10.3390/earth3010023>
41. Komali Kantamaneni, Sigamani Panneer, Annaidasan Krishnan, Sulochana Shekhar, Lekha Bhat, Aswathi K, Louis Rice (2022). Appraisal of climate change and cyclone trends in Indian coastal states: a systematic approach towards climate action, Arabian Journal of Geosciences (2022) 15:814 <https://doi.org/10.1007/s12517-022-10076-8>.

42. Karuppusamy Balasubramani,, Kumar Arun Prasad, Naveen Kumar Kodali, , Nishadh Kalladath Abdul Rasheed, Savitha Chellappan, , Devojit Kumar Sarma, , Manoj Kumar, Rashi Dixit, Meenu Mariya James, Sujit Kumar Behera, Sulochana Shekhar and Praveen Balabaskaran Nina (2022) Spatial epidemiology of acute respiratory infections in children under five years and associated risk factors in India: District-level analysis of health, household, and environmental datasets, *Front. Public Health* 10:906248. <https://www.frontiersin.org/articles/10.3389/fpubh.2022.906248/full>
43. Abarna, R., Leo George, S., Balasubramani, K., Yuvaraj, S., Shekhar, S., Gnanappazham, L., & Kumar, A. P. (2023). Estimating built-up risk from multi-natural hazards: A case study of Northern coastal plains of Tamil Nadu. *Natural Hazards Research*, In press. <https://doi.org/10.1016/j.nhres.2023.01.001>
44. Sunita, Kumar, D., Shahnawaz and Sulochana Shekhar (2023). Evaluating urban green and blue spaces with space-based multi-sensor datasets for sustainable development. *Comput.Urban Sci.* 3, 12 (2023). <https://doi.org/10.1007/s43762-023-00091-0>
45. Mahata, D., Shekhar, S. (2023). Community Perception of Climate Change and Extreme Heat Influences on Health: Study of Kolkata Metropolitan Region. *Glob Soc Welf* (2023). <https://doi.org/10.1007/s40609-023-00271-0>
46. Sulochana Shekhar and Kannan Ravi (2023). Characterising the slum environment from space for achieving SDGs. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, Volume XLVIII-M-1-2023 39th International Symposium on Remote Sensing of Environment (ISRSE-39) "From Human Needs to SDGs", 24–28 April 2023, Antalya, Türkiye.
47. Kannan Ravi and Sulochana Shekhar (2023) Multi-temporal analysis of urbanisation and slums in Chennai, Tamil Nadu using Remote sensing and Geospatial techniques, *Urban India*, Vol 43. 1, Jan-Jun 2023, ISSN 0970-9045, Published by National Institute of Urban Affairs, WWW.niua.in
48. Amit Kumar; Siddharth Kumar; Kuldeep Singh Rautela; Sulochana Shekhar; Tapas Ray; and Mohanasundari Thangavel (2023). Assessing seasonal variation and trends in rainfall patterns of Madhya Pradesh, Central India, *Journal of Water and Climate Change* jwc2023280, Volume 14, Issue 9, <https://doi.org/10.2166/wcc.2023.280>
49. Amit Kumar; Siddharth Kumar; Kuldeep Singh Rautela; Aksara Kumari; Sulochana Shekhar; and Mohanasundari Thangavel (2023). Exploring temperature dynamics in Madhya Pradesh: a spatial-temporal analysis, *Environ Monit Assess* 195, 1313 (2023). <https://doi.org/10.1007/s10661-023-11884-5>
50. S. R. Prasanth, M. Yaqoob, K. A. Prasad, S. Shekhar and L. Gnanappazham (2023). Characterizing Water Dynamics of Coastal Aquaculture Ponds using Index based Time Series Analysis, 2023 IEEE India Geoscience and Remote Sensing Symposium (InGARSS), Bangalore, India, 2023, pp. 1-4, doi: 10.1109/InGARSS59135.2023.10490355.
51. Sehrawat, S., Shekhar, S. (2024) Potential sites for blue-green infrastructure in Gurugram, India; a multicriteria analysis. *GeoJournal* 89, 36 (2024). <https://doi.org/10.1007/s10708-024-11021-w>

52. Balasubramani, K., Ravichandran, V., Prasad, K. A., Ramkumar, M., Shekhar, S., James, M. M., Kodali, N. K., Behera, S. K., Gopalan, N., Sharma, R. K., Sarma, D. K., Santosh, M., Dash, A. P., & Balabaskaran Nina, P. (2024). Spatio-temporal epidemiology and associated indicators of COVID-19 (wave-I and II) in India. *Scientific Reports*, 14(1), 1-12. <https://doi.org/10.1038/s41598-023-50363-2> (Impact Factor: 4.6)
53. Sehrawat, S., Shekhar, S (2024) Global insights, local realities: BGI challenges and opportunities in Indian urbanization. *Eco-Cities* 4(1), DOI: [10.54517/ec.v4i1.2409](https://doi.org/10.54517/ec.v4i1.2409)
54. Harikrishna, S., Gurugnanam, B., Bairavi, S., & Shekar, S. (2024). Geospatial technology-based shoreline change analysis (1992–2022) and predictive forecast modelling for 2032 and 2042, utilising DSAS, along the eastern coast of India. *Kuwait Journal of Science*, 51(4), 100272. <https://doi.org/10.1016/j.kjs.2024.100272>
55. Mahata, D., Shekhar, S. & Ravi, K. (2024). Urban expansion influences on land use and land cover changes in Kolkata metropolitan region: a geo-spatial study. *GeoJournal*, 89, 237 (2024). <https://doi.org/10.1007/s10708-024-11236-x>
56. Simran Sehrawat, Sulochana Shekhar (2025). Integrating Low Impact Development Practices with GIS and SWMM for Enhanced Urban Drainage and Flood Mitigation: A Case Study of Gurugram, India, Urban Governance, Available online 27 May 2025, <https://doi.org/10.1016/j.ugj.2025.05.004>
57. Amit Kumar, Juna Probha Devi, Dhanya Bhaskar, Sulochana Shekhar, Uday Chatterjee and T. Mohanasundari (2025). Perceptions and impacts of climate change in Central India: A study of tribal communities, *Theoretical and Applied Climatology*, 156:423 <https://doi.org/10.1007/s00704-025-05653-2>
58. Sureshkumar S, Sulochana, Shekhar (2025). Impact of urban heat island effect on dengue incidence: a remote sensing approach using thermal and high-resolution optical imagery. *BMC Public Health* 25, 2914 (2025). <https://doi.org/10.1186/s12889-025-23763-4>
59. Kumar D, Shekhar S and Tewary T (2025) Editorial: AI and data analytics for climate data management. *Front. Environ. Sci.* 13:1679608. doi: 10.3389/fenvs.2025.1679608
60. Amit Kumar, Tapas Ray, T. Mohanasundari, Surendra Singh Jatav, Uday Chatterjee, Sulochana Shekhar, Edris Alam & Md Kamrul Islam (2025). Forest fires and climate change in India: impacts, adaptive strategies, and pathways for climate action (Sustainable Development Goal-13). *Environ Sci Eur* 37, 147 (2025). <https://doi.org/10.1186/s12302-025-01195-6>
61. Sureshkumar, S., Shekhar, S. (2026). Spatiotemporal Assessment of Urban Growth Dynamics Using Open-Source Remote Sensing Datasets: A Case Study of Tamil Nadu State. *J Indian Soc Remote Sens* (2026). <https://doi.org/10.1007/s12524-025-02420-8>
62. Sehrawat, S., Shekhar, S. (2026). Evaluating urban flood risk and retention potential using InVEST-UFRM: a case study from Gurugram, India. *Arabian Journal of Geosciences*, 19, 40 (2026). <https://doi.org/10.1007/s12517-026-12451-1>
63. Daimary, N., & Shekhar, S. (2026). Spatio-temporal assessment of land use efficiency and urban expansion in Assam (2000–2025) using SDG 11.3.1 frameworks. *Geografisk Tidsskrift-Danish Journal of Geography*, 1–18. <https://doi.org/10.1080/00167223.2026.2680218>

Articles Published in the Edited Books

1. Sulochana Shekhar (2006). *Geospatial Technology for Monitoring of Development plan. An article published in the book Applications of Geospatial Technology* Edited by Dr A. Ganesh pp 185- 194, 10 pages, published by Satish serial publishing house, *New Delhi. (Reference Book)*
2. Sulochana Shekhar and Jaymala Diddie (2009) Globalising Indian cities - Special reference to Pune” An article published in the book “Globalisation: Issues and challenges for India” published by Department of Geography, Smt Parvatibai Chowgule College, Margao, Goa.
3. Sulochana Shekhar, Priya Narayanan (2012) Sub pixel analysis of Hyperion data- Case study of Jaipur city, published in Conference proceedings, National Seminar on Frontier research on Earth Sciences
4. Priya Narayanan, Sulochana Shekhar (2012) Urban Roof-Top material discrimination, through Intra-class spectral variability of Hyperspectral data published in Conference proceedings.
5. Nijagunappa.R, S.Gaikwad, A.Ahmed, Sulochana Shekhar (2012), Urban Sprawl Study on Gulbarga City using Geoinformatics and Shannon’s Entropy published in Conference proceedings.
6. Sulochana Shekhar (2013) Modelling the Growth of Slums, Challenges of Urbanization in the 21st Century, Volume5, Marginalisation and Exclusion in Urban spaces, Edited by Kalpana Markandey, B. Srinagesh and Ashok Kumar Lonavath, ISBN -13: 978-81-8069-952-8(vol 5).
7. Kumar, Deepak & Shekhar, Sulochana (2015) Rural Energy Supply Models for Smart Villages, In Rao, Madhava V.; Rao, Kesava P.; Kumar Phanindra T. & Murthy D.S.R. (1st Edi.) Geoinformatics Applications in Rural Development, Professional Books Publisher, Hyderabad, PP 166-178 ISBN: 978-81-909728-9-5.
8. Sivashankari V, Amit Kumar Dubey, Nivedita Priyadarshini K, Sulochana Shekhar (2019), Integrated hydrological modelling over upstream catchments of Himalayan rivers and assessment of extreme hydrological events, (doi:10.3390/IECG2019-06210) Published: 05 June 2019 by MDPI AG in 2nd International Electronic Conference on Geosciences session Tracers in Hydrogeology, Proceedings 2019 Volume 24, Issue 1, 13.
9. Nivedita Priyadarshini K, Sivashankari V, Sulochana Shekhar, Balasubramani K (2019), Comparison and evaluation of dimensionality reduction techniques for hyperspectral data analysis, (doi:10.3390/IECG2019-06209) Published: 05 June 2019 by MDPI AG in 2nd International Electronic Conference on Geosciences session Earth Sciences through Earth Observation, Proceedings2019 Volume 24, Issue 1, 6.
10. Sulochana Shekhar (2019) Application of Geoinformatics in analysing road accidents, Chapter 2, Public Health Relevance of Road Traffic Injury in India, by P Sigamani, J Raja Meenakshi, NU Khan, pages 7-18, Published by Bloomsbury India, ISBN 9789389000627.
11. Seenipandi, K., Ramachandran, K.K., Ghadei, P., Shekhar, S. (2020). Ocean remote sensing for seasonal predictability of phytoplankton (chl- a) biomass in the Southern Indian coastal water region using Landsat 8 OLI images. In: Rani, M., Seenipandi, K., Rehman, S., Kumar, P., Sajjad, H. (Eds.), Remote Sensing of Ocean and Coastal Environments. Elsevier, pp. 31–46. ISBN: 9780128196045
12. Seenipandi, K., Ramachandran, K.K., Ghadei, P., Shekhar, S., (2020). Seasonal variability of sea surface temperature in Southern Indian coastal water using Landsat 8 OLI/TIRS images. In: Rani, M., Seenipandi, K., Rehman, S., Kumar, P., Sajjad, H. (Eds.), Remote Sensing of Ocean and Coastal Environments. Elsevier, pp. 277–295. ISBN: 9780128196045
13. Seenipandi, K., Ramachandran, K.K., Ghadei, P., Shekhar, S., (2020). Ocean remote sensing of suspended sediment variability in Southern Indian coastal water region using Landsat 8 OLI images. In: Rani, M., Seenipandi, K., Rehman, S., Kumar, P., Sajjad, H. (Eds.), Remote Sensing of Ocean and Coastal Environments. Elsevier, pp. 297–313. ISBN: 9780128196045

14. Seenipandi, K., Ramachandran, K.K., Ghadei, P., Shekhar, S., (2020). Ocean remote sensing of seawater salinity and its seasonal variability – a case study of Southern Indian coastal water using Landsat 8 – OLI images. In: Rani, M., Seenipandi, K., Rehman, S., Kumar, P., Sajjad, H. (Eds.), *Remote Sensing of Ocean and Coastal Environments*. Elsevier, pp. 297–313. ISBN: 9780128196045
15. Priyadarshini K.N., Sivashankari V., Shekhar S., *Balasubramani K.* (2021) Examining Land Surface Temperature from Agglomerative Spectra Using Hyperspectral Dataset. In: *Sustainable Climate Action and Water Management* (Eds. Mishra R.K., Singh R.B., Dubey A.). *Advances in Geographical and Environmental Sciences*. Springer, Singapore. https://doi.org/10.1007/978-981-15-8237-0_17
16. Sulochana Shekhar and Sarath R (2022) Assessment of Physical vulnerability to Floods: A case study of Chennai city, India. Chapter published in the Edited volume: *Disaster Risk reduction and Management in India*, Edited by Sigamani Panner, Santhosh Kumar, Babu L, Vigneswaran Subbiah Akkayasamy. Published by Bloomsburry (2022).
17. Abby Varghese, Sulochana Shekhar (2023). *Integrated Urban Water Management in Chandigarh Smart City*, Chapter published in the Book *Fifth World Congress on Disaster Management: Volume V Edition1st Edition*, First Published 2023, Imprint Routledge, Pages19, eBook ISBN9781003342090.
18. Ashish Mani, Deepali Bansal, Hanuth Saxena, Maya Kumari, Deepak Kumar, Dharmendra Kumar, Sulochana Shekhar (2023). *Assessment of COVID-19 Impact on the Vegetation and Urbanisation of Dehradun City Using Geospatial Techniques*, Chapter 19, *Geoinformatics for Sustainable Urban Development*. Edition1st Edition, First Published2023, Imprint CRC Press, Pages22, eBook ISBN9781003331001.
19. Deepak Kumar, Sulochana Shekhar, Tavishi Tewary, (2024) Chapter 1. *Data Analytics and Artificial Intelligence for Earth Resource Management*, Editor(s): Deepak Kumar, Tavishi Tewary, Sulochana Shekhar, *Data Analytics and Artificial Intelligence for Earth Resource Management*, Elsevier, 2025, Pages 1-17, ISBN 9780443235955, <https://doi.org/10.1016/B978-0-443-23595-5.00001-2>.
20. Deepak Kumar, Nick P. Bassill, and Sulochana Shekhar (2025). Chapter 33, *Role of urban forestry and informal forest management for heat island mitigations*, in Edited Volume on *Forests for Inclusive and Sustainable Economic Growth*. Book Published: Elsevier Inc. DOI: <https://doi.org/10.1016/B978-0-443-31406-3.00033-3> © 2025
21. T. K. Senthamizh, Sulochana Shekhar, Neuton Daimary, Ajaydas Poolatt (2025) *Mapping Persistent Urban Heat Islands for Sustainable Urban Greening in Coimbatore*. Submitted: 07 September 2025 Reviewed: 15 September 2025 Published: 18 December 2025 DOI: 10.5772/intechopen.1013021 (Urban Greening and Reforestation, Prof. Khalid Rehman Hakeem.

Books Published

- Edited Book **“Globalisation: Issues and challenges for India”** 2009 published by Department of Geography, Smt Parvatibai Chowgule College, Margao, Goa. Editors: nandkumar Sawant, Sulochana Shekhar, Jaymala Diddee and Suresh Jog.
- **“Study on Pune by Using Remote Sensing and GIS Techniques”** By Sulochana Shekhar (Paperback-11-2010) Publisher: Lap Lambert Academic Publishing, Germany. <http://www.amazon.com/study-using-Remote-Sensing-techniques/dp/3843372934>
- **Modeling the Growth of Slums, Application of Geoinformatics in Urban Environment** By Sulochana Shekhar, Lambert Academic Publishing, Germany (2011) ISBN 978-3-8465-3401-4.
- **Slum Development in India- A study of slums in Kalaburagi, by Sulochana Shekhar, Springer International Publishing. The urban Book Series, April 2021, Print ISBN: 978-3-030-72291-3 Electronic ISBN: 978-3-030-72292-0**
- **Geoinformatics for Sustainable Urban Development**, Edited by Sulochana Shekhar, Deepak Kumar eBook Published 24 July 2023. New York, Imprint CRC Press, eBook ISBN9781003331001 DOI <https://doi.org/10.1201/9781003331001> Pages376
- **Data Analytics and Artificial Intelligence for Earth Resource Management**, 1st Edition - November 11, 2024 Editors: Deepak Kumar, Tavishi Tewary, Sulochana Shekhar Paperback ISBN: 9780443235955, eBook ISBN: 9780443235962

Sponsored Projects:














1. HUDCO sponsored Project on “Application of Geoinformatics in housing the Urban poor (Gulbarga city)”. (18.56 lakhs)
2. UGC Major Research Project on “Assessing the environmental impact of Urbanisation on Gulbarga city by using Geoinformatics”. (12. 5 lakhs)
3. UGC-UKIERI Research Project on “An interactive spatial Decision Support System for monitoring Public Health using Geoinformatics” (Rs12.73 Lakhs) with University of Cambridge, UK.
4. DST Sponsored Project on “Mitigating and Managing Urban Heat Islands through Social Forestry - Using Hyper & Multi-Spectral Remote Sensing” (32.96 lakhs)
5. NGP (NRDMS), DST sponsored 21 days Winter School training programme on “Geospatial Technology and Its Applications - Level 1 (GeoTiA-2022)” from 21st November to 11th [December 2022](#), at the Central University of Tamil Nadu.
6. ICSSR Research project on “Assessing the implications of aquaculture on environment and socioeconomic conditions in the northern coastal plains of Tamil Nadu: A step towards sustainable shrimp farming” (Rs 5 lakhs)
7. Consulate General of the United States of America 2023 AEIF Grant-Enhancing the Culture of Entrepreneurship among Women engaged in crafts in India, Consulate General of the United States of America (\$32,257)

No of Conferences/Seminars/Workshops attended/Invited Lecture: 92+
(International and National)

Membership in Professional Bodies

1. Life Member of Institute of Indian Geographers ---- L 0 574
2. Life Member of Indian Society of Remote Sensing ---- L 2278
3. Life Member of Indian Society of Geomatics ---- L 0717
4. Life Member of Deccan Geographical Society ---- L 0820
5. Life Member of Indian Meteorological Society ---- LM2016
6. Life Member of Union of Geographic Information Technologists (UGIT)
7. Life Member of Indian Cartographic Association – LM2764
8. Life member of The Indian Geographical Society
9. Indian Science Congress Association - L39794
10. Life Member of National Association of Geographers, India- L2884

Notable Recognitions

-  Fellow of the Royal Geographical Society, IBG, UK
-  Secretary- International Society for Photogrammetry and Remote Sensing (ISPRS ICWG V/IV)
<https://www2.isprs.org/commissions/comm5/icwg-5-4/> (2022-26)
-  Chairman- Indian Society of Remote Sensing - Tiruchirappalli Chapter (2022-24)
<https://www.isrs-india.org/chapters.aspx>
-  Vice President- Indian Institute of Geographers, Pune
-  Vice President- Indian Geographical Society, Madras
-  Founder Member- Association of Human Geographers
-  Executive Council Member- National Association of Geographers
-  Member –Indian National Cartographic Association (INCA) – Cartographer- Editorial Member
-  Member of Editorial Board- North Eastern Geographer
-  IGNOU- Academic Counsellor
-  Nodal Officer- NEET UG (2025 & 2026)
-  Nodal Officer-SAMARTH ERP at CUTN
-  Reviewer - Cities, Journal of Urban management; Sustainability; Indian Journal of remote sensing; Trees, Forests and People, Global Public Health, Geology, Ecology, & Landscapes, International Journal on Disaster Risk Reduction, Discover Cities, Frontiers in Sustainable Cities, Sustainable Communities, International Journal of Digital Earth and Discover Sustainability.