Curriculum Vitae

Dr. Md. Omar Sarif

Remote Sensing Engineer & Geographer

Ph.D. (GIS & Remote Sensing),
M.Tech. (Remote Sensing),
M.A. (Geography),
B.A. (Hons.) - Geography

Date of Birth: 13th June, 1991
Father's Name: MD. ABU HENA
Mother's Name: NASIMA HASIN
Nationality: Indian
Country: India
Passport Number: N7452661 (Country - India)

CONTACTS

Permanent/Correspondence Address

Mohallah- Jalal Munshi Para,
Vill and P.O. - Choto Sujapur,
P.S. - Kaliachak,
Dist. - Malda,
State - West Bengal,
Country - India
PIN - 732206,
Mob. No.: +91-9905097015 (Call) / +91-8004232785 (WhatsApp)
Email ID.: mdomarsarif@gmail.com / rgi1606@mnnit.ac.in

AREA OF RESEARCH

1. Remote Sensing and GIS
2. Urban trajectories and modelling
3. Land Use/Land Cover mapping and simulation
4. Thermal state evaluation
5. Ecological vulnerability
6. Carbon sequestration
7. Forest change dynamics and vegetation anomaly
8. CO_2 mapping and its links with Urbanisation

FIND ME ON VIRTUAL WORLD

1. **ORCiD ID:** https://orcid.org/0000-0002-7143-4522
2. **publons:** https://publons.com/researcher/3133680/md-omar-sarif/
3. **Scopus:** https://www.scopus.com/authid/detail.uri?authorId=57200074703
4. **Google Scholar:** https://scholar.google.com/citations?user=9UNZA6MAAAAJ&hl=en
5. **ResearchGate:** https://www.researchgate.net/profile/Md_Omar_Sarif

PRESENT AFFILIATION

Institute: Motilal Nehru National Institute of Technology Allahabad (**N.I.T. Allahabad**), **India** (*Institute of National Importance*)

Programme: Ph.D. Research Scholar (Senior Research Fellow)

Discipline: Engineering

Subject: GIS & Remote Sensing

Supervisor: Prof. Rajan Dev Gupta

Department: Geographic Information System (GIS) Cell

Joining Date: 15th July, 2016

Leaving Date: 21st May-2022 [**Ph.D. Oral Examination has successfully conducted on 20th May, 2022**]

EDUCATION QUALIFICATION

Course	Board/Institute/University	Year of Passing	Percentage/ CGPA	Division
Ph.D. in Engineering (GIS & Remote Sensing)	Motilal Nehru National Institute of Technology Allahabad, Prayagraj (**N.I.T. Allahabad**) (*Institute of National Importance*)	May, 2022#	CGPA–8.00 in Course Work	* First Division With Distinction
M. Tech. (Remote Sensing)	Birla Institute of Technology, Mesra	May, 2016	84 % (CGPA-8.4)	First Class With Distinction
M.A. (Geography)	Jamia Millia Islamia, New Delhi (***Ranked Under Top 500 Best World Universities***)	July, 2014	77.9 % (CGPA-8.29)	First Division With Distinction
B.A. (Hons.) - Geography	Aligarh Muslim University, Aligarh	June, 2012	64.13 %	First Division
10+2 (Bengali; English; Geography; Modern Computer Application; Political Science)	W.B.C.H.S.E., Kolkata	May, 2009	64.2 %	First Division

*Pursuing since 15th July-2016 [First Division with Distinction in Course Work], Comprehensive Examination, State of the Art Examination, **Open Seminar** (held on 12.07.2021) of Ph.D. is Completed Successfully, **Ph.D. Thesis** has been submitted on 10th January 2022, **Ph.D. Thesis Report** has received on 1st April, 2022 and #**Ph.D. Oral Examination** has been successfully conducted on 20th May of 2022.

Ph.D. DETAILS

Topic: *Modelling of Urban Sprawl, Urban Heat Island and their interrelationship with Land Use/Land Cover Dynamics using Remote Sensing and GIS.*

Discipline: Engineering

Subject: GIS & Remote Sensing

Supervisor: Prof. Rajan Dev Gupta

Department: Geographic Information System (GIS) Cell

Institute: Motilal Nehru National Institute of Technology Allahabad (N.I.T. Allahabad), Prayagraj–211004, India (*Institute of National Importance*)

Joining Date: 15th July, 2016

Completed Date: 20th May, 2022 [Ph.D. Thesis has been submitted on 10th January, 2022 and Ph.D. Thesis reports have arrived on 1st April, 2022, and Ph.D. oral exam (viva-voce) has been conducted on 20th May, 2022]

Publication from Ph.D. Thesis Objectives Work: Published: 03, Under Processing: 03 (**Total: 06**)

PROJECT WORK IN POST GRADUATIONS

- *Socio-Ecological Impact of Mining in Jharkhand:* Thesis submitted for partial fulfilment of the ***Master of Arts (M.A.) in Geography*** under the supervision of Prof. Atiqur Rahman at Jamia Millia Islamia, New Delhi - 110025, India (January-2014 to May-2014).

- *Satellite Based Forest Change Analysis in the State of Jharkhand*: Thesis submitted for partial fulfillment of the ***Master of Technology (M.Tech.) in Remote Sensing*** under the supervision of Prof. C. Jeganathan at Birla Institute of Technology, Mesra, Ranchi-835215, India (July-2015 to May-2016). ***(Published 1 SCI indexed research article from the M.Tech. Project Thesis)***

WORKING PAPERS FOR SCI JOURNALS [AT PRESENT– 02]

1. **Sarif, M. O.**, & Gupta, R. D. (2022). Mapping and Prediction of LULC Scenario using CA-ANN Model for carrying out Long-term Spatiotemporal Dynamics: A First Time Approach for Prayagraj Smart City, India. *Geocarto International* **(Under Review)**. (**Impact Factor: 4.889**). (Corresponding Author) [Research Article from Ph.D. Thesis Work]

2. **Sarif, M. O.**, Gupta, R. D., & Murayama, Y. (2022). Spatiotemporal Seasonal Interrelationship among LST and Six Land Indices to Explore SUHI and Hot–Spot Dynamics: A Case Study—Prayagraj City, India. *Remote Sensing* **(Under processing)**. (**Impact Factor: 4.848**). (Corresponding Author) [Research Article from Ph.D. Thesis Work]

PUBLICATION IN SCI/SCOPUS JOURNALS [PUBLISHED–13]

1. **Sarif, M. O.**, & Gupta, R. D. (2022). Evaluation of Seasonal Ecological Vulnerability using LULC and Thermal State Dynamics using Landsat and MODIS Data: A Case Study of Prayagraj City, India (1987-2018). *Environmental Science and Pollution Research* **(Accepted on 27th May, 2022 and waiting for e-proofing)**. (**Impact Factor: 4.223**). (Corresponding Author) [Research Article from Ph.D. Thesis Work]

2. **Sarif, M. O.**, Ranagalage, M., Gupta, R. D., & Murayama, Y. (2022). Monitoring Urbanization Induced Urban Cool Island Formation in a South Asian Mega-City: A Case Study of Bengaluru, India (1989–2019). *Frontiers in Ecology and Evolution*; https://doi.org/10.3389/fevo.2022.901156 (**Impact Factor: 4.171**). (Corresponding Author)

3. **Sarif, M. O.**, & Gupta, R. D. (2022). Spatiotemporal mapping of Land Use/Land Cover dynamics using Remote Sensing and GIS approach: a case study of Prayagraj City, India (1988–2018). *Environment, Development and Sustainability*, 24, 888–920; https://doi.org/10.1007/s10668-021-01475-0. (**Impact Factor: 3.219**). (Corresponding Author) [Research Article from Ph.D. Thesis Work]

4. **Sarif, M. O.**, & Gupta, R. D. (2021). Modelling of Trajectories in Urban Sprawl types and its Dynamics (1988-2018): A case study on Prayagraj City (India). *Arabian Journal of Geosciences*. 14(1347), 1-21; http://doi.org/10.1007/s12517-021-07573-7 (**Impact Factor: 1.827**). (Corresponding Author) [Research Article from Ph.D. Thesis Work]

5. **Sarif, M. O.**, & Gupta, R. D. (2021). Comparative evaluation between Shannon's entropy and spatial metrics in exploring the spatiotemporal dynamics of urban morphology: A case study of Prayagraj City, India (1988–2018). *Spatial Information Research*, 29, 961–979; https://doi.org/10.1007/s41324-021-00406-5. (**CiteScore: 2.9**). (Corresponding Author) [Research Article from Ph.D. Thesis Work]

6. Matloob, A., **Sarif, M. O.**, & Um, J. (2021). Exploring correlation between OCO-2 XCO2 and DMSP/OLS nightlight imagery signature in four selected locations in India. *Spatial Information Research*. 29(1): 123-135; DOI: 10.1007/s41324-021-00381-x. (**Cite Score: 2.9**)

7. Matloob, A., **Sarif, M. O.**, & Um, J. (2021). Evaluating the inter-relationship between OCO-2 XCO2 and MODIS-LST in an Identified Industrial Belt: A Case Study on Western Part of Bengaluru City of India. *Spatial Information Research*. 29(3): 257-265; https://doi.org/10.1007/s41324-021-00396-4. (**Cite Score: 2.9**)

8. Pathak, C., Chandra, S., Maurya, G., Rathore, A., **Sarif, M. O.**, & Gupta, R. D. (2021). The Effects of Land Indices on Thermal State in Surface Urban Heat Island Formation: A Case Study on Agra City in India Using Remote Sensing Data (1992–2019). *Earth System and Environment*. 5(1): 135-154; DOI: 10.1007/s41748-020-00172-8 (**Cite Score: 6.2**). (Corresponding Author)

9. **Sarif, M. O.**, Rimal, B., & Stork, N. E. (2020). Assessment of spatial and temporal dynamics of Land Use/Land Cover and its influence on land surface temperatures in Surface Urban Heat Island: A case study of the Kathmandu Valley. *ISPRS International Journal of Geo-Information*, 9(12), 1-29; DOI: 10.3390/ijgi9120726. (**Impact Factor: 2.899**).

10. Rousta, I., Doostkamian, M., Malamiri, H. R. G., Olafsson, H., Zhang, H., Teherian, A. M., **Sarif, M. O.**, Gupta, R. D., & Vargas, E. R. M. (2019). On the relationship between 500 hPa height fluctuations and Atmosphere Thickness over Iran and the Middle East. *Tethys*, 16, 3–14, DOI:10.3369/tethys.2019.16.01 (**Cite Score: 3.2**).

11. Sabziparvar, A. A., Mousavi, S. H. M., Doostkamian, M., Haghighi, E., Rousta, I., Ólafsson, H., **Sarif, M. O.**, Gupta, R. D., Ghasemi, A., Karampour, M., Moniruzzaman, M., & Hasan, K. (2019). A harmonic Analysis of Spatial Pattern of Iran's Thunderstorms, during the years of 1961-2010.

Advances in Meteorology, 34, Article ID 1612503, https://doi.org/10.1155/2019/1612503. (**Impact Factor: 1.962**).

12. Rousta, I., **Sarif, M. O.**, Gupta, R. D., Olafsson, H., Ranagalage, M., Murayama, Y., Zhang, H., & Mushore, T. D. (2018). Spatiotemporal Analysis of Land Use/Land Cover and Its Effects on Surface Urban Heat Island Using Landsat Data: A Case Study of Metropolitan City Tehran (1988–2018). *Sustainability*, 10(12), 1-26; DOI: 10.3390/su10124433. (**Impact Factor: 3.251**). (Corresponding Author)

13. **Sarif, M. O.**, Jeganathan, C., & Mondal, S. (2017). MODIS-VCF based forest change analysis in the state of Jharkhand. Proceedings of the National Academy of Science, India Section A – Physical Sciences, 87(4):751–767; DOI: 10.1007/s40010-017-0446-6. (**Impact Factor: 1.544**) (Corresponding Author) [Research Article from **M.Tech.** Project Work]

PUBLICATION IN PEER REVIEWED STANDARD JOURNALS (NATIONAL / INTERNATIONAL) [PUBLISHED– 02]

14. Husain, A., Vaishya, R. C., & **Sarif, M. O. (2018)**. A Moving Window Search Method for Detection of Pole Like Objects Using Mobile Laser Scanner Data. *International Journal of Computer Sciences and Engineering*, Volume 6, Issue 3, 1-6, **DOI: 10.26438/ijcse/v6i3.16.** (Corresponding Author)

15. Rousta, I., Doostkamian, M., Olafsson, H., Zhang, H., Vahedinejad, S. H., **Sarif, M. O.**, & Monroy Vargas, E. R. **(2018)**. Analyzing the Fluctuations of Atmospheric Precipitable Water in Iran During Various Periods Based on the Retrieving Technique of NCEP/NCAR. *The Open Atmospheric Science Journal*, 12(1), 48–57. **DOI: 10.2174/1874282301812010048**

CONFERENCE PROCEEDING PAPER [FULL PAPERS: PUBLISHED-03, SCOPUS INDEX-01]

16. **Sarif, M. O.**, Jeganathan, C., & Mondal, S. **(2016)**. Satellite Based Forest Change Analysis in the State of Jharkhand, *Advancement in Application of Remote Sensing and Geospatial Technology (AARSGT-2016)*, Department of Remote Sensing, BIT-Mesra, 19th - 21st May, 2016, Ranchi, India; https://www.bitmesra.ac.in/Visit_Department_Page?cid=1&deptid=78&pid=66. (Corresponding Author)

17. **Sarif, M. O.,** & Gupta, R. D. **(2018)**. Extraction of LU/LC Dynamics from Multi-temporal Landsat Images for Monitoring Natural Resources. *National Conference on Role of Geospatial Technologies for Good-Governance and Sustainable Development*, Interdisciplinary Department of Remote Sensing and GIS Applications, Aligarh Muslim University, 17th -19th February, 2018, Aligarh, India. (Corresponding Author)

18. **Sarif, M. O.,** & Gupta, R. D. **(2019)**. Land Surface Temperature Profiling And Its Relationships With Land Indices: A case study on Lucknow City. *International Workshop on 'Capacity building and Education Outreach in Advanced Geospatial Technologies and Land Management'*, **ISPRS Annals**, Land Management Training Center, 10th -11th December, 2019, Dhulikhel (Near Kathmandu), Nepal; **DOI:** 10.5194/isprs-annals-IV-5-W2-89-2019 **(Scopus Indexed International Conference, CiteScore: 2.2).** (Corresponding Author)

19. **Sarif, M. O.,** & Gupta, R. D. **(2019)**. Change assessment of spatio-temporal dynamics of Land Use/Land Cover using Remote Sensing and GIS: A case study of Lucknow City (1993-2019).

Indian Cartographer, Volume 39, 345-354; http://www.incaindia.org/single-page/191. *39th INCA International Congress,* Survey of India, 18th -20th December, 2019, Dehradun, India. (Corresponding Author)

BOOK CHAPTERS [SCOPUS INDEX-02]

20. Gupta, R. D. & **Sarif, M. O.**, (2022). Monitoring Spatiotemporal Land Use and Land Cover Dynamics: A Case Study of Kolkata Megapolis, India (1991-2021). In, *Lecture Notes in Civil Engineering*: Springer Nature. **[In press]**

21. Kaur, S., Babbar, D., **Sarif, M. O.**, Ghatak, A., & Jaafari, A. (2022). Assessment of Carbon Sequestration in Delhi, India. In, *Conservation, Management, and Monitoring of Forest Resources in India*: Springer Nature. **[In press]**

22. Gupta, R. D. & **Sarif, M. O.**, (2022). Urban planning through implementing United Nations' Sustainable Development Goal–11 perspective at local level using long–term assessment of landscape change dynamics, thermal state and ecological vulnerability: A Case Study of Kolkata Megapolis (India). In, *Application of Geospatial Technology and Artificial Intelligence in Urban-environmental Studies*: Springer Nature. **[Under Review]**

WORKED AS A REVIEWER IN SCI/SCOPUS JOURNAL

1. Environment, Development and Sustainability (Impact Factor: 3.219)
2. GIScience & Remote Sensing (Impact Factor: 6.238)
3. Environmental Monitoring and Assessment (Impact Factor: 1.95)
4. Geocarto International (Impact Factor: 4.889)
5. Arabian Journal of Geosciences (Impact Factor: 1.825)
6. SN Applied Sciences (CiteScore: 1.7)
7. Asia-Pacific Journal of Regional Science (CiteScore: 1.3)
8. Environmental Sustainability (CiteScore: —)

TECHNICAL SKILLS

- Programming Languages : Python (Basic), C (Basic), C++ (Basic)
- Applications : Microsoft Office (Word, Excel, Power Point)

LANGUAGE KNOWN

- Bengali - Outstanding (Ability in both Writing & Speaking)
- English – Excellent (Ability in both Writing & Speaking)
- Hindi – Excellent (Ability in Speaking)

PERSONAL STRENGTHS

- Leadership.
- Quick learner.
- Elegant team player.
- Smart worker.

TRAINING EXPERIENCE

- Training on Remote Sensing Technology and its Application, From- NRSC, RRSSC-East, Indian Space Research Organization (ISRO), Kolkata (10th March to 15th March, 2014)

- Off campus outreach certificate program on “Remote Sensing, Geographical Information System & Global Navigation Satellite System”, conducted by ‘India Institute of Remote Sensing’, Indian Space Research Organization (ISRO), Department of Space, Government of India during the period of 4th August, 2014 to 14th November, 2014.

- 16th IIRS Outreach Programme on "Geospatial Technologies for Urban Planning", conducted by ‘India Institute of Remote Sensing’, Indian Space Research Organization (ISRO), Department of Space, Government of India (Duration: 11th February, 2016 to 15th March, 2016)

EXPERIENCE IN REMOTE SENSING AND GIS SOFTWARES HANDLING

- ArcMap 10.3
- ERDAS IMAGINE 9.2, ERDAS IMAGINE 2014
- ENVI
- ILWIS 3.0
- QGIS
- TerrSet
- Origin

ACADEMIC EXPERIENCE (2009-14)

- **Post:** Vice President (September-2013 to May-2014), Jamia Geography Association, Department of Geography, Jamia Millia Islamia, New Delhi, PIN-110025.

- **Post:** Organizer (2009-12), Hostel Function of Osmania (Lower), Sir Syed Hall (North), Aligarh Muslim University, Aligarh, Uttar Pradesh, PIN-202002.

CALL LETTER FOR APPOINTMENT

- Offer of appointment as a Junior Research Fellow on a purely temporary basis for the period of one year (initially) and it can be continued up to five years on the basis of performance at North Eastern Space Application Centre, Umiam, Meghalaya (Under Government of India) for the project, “NRC LULC-250K”; Joining Date: Between 14/04/2017 and 20/04/2017. (Not Joined)

  (Reference Number: NESAC/RMT-JRF/11.4(VII)/2017).

AWARDS AND SCHOLARSHIPS

- Awarded **Maulana Azad National Fellowship for Minority Students** for pursuing **Ph.D.** (INR ₹35000/- per month with HRA of 16% and annual contingency of 25000/- (5 Years, from 01/04/2017 to 31/03/2022))

- Awarded **TEQIP Scholarship** for **M.Tech. (Remote Sensing)** (INR ₹5000/- per month (10 Months, from 01/08/2015 to 24/05/2016))

REFERENCE

Prof. (Dr.) Rajan Dev Gupta, Ph.D. Department of Civil Engineering, and Member of GIS Cell, Motilal Nehru National Institute of Technology Allahabad, Prayagraj, **India** PIN. 211004, Mob No. +91-9838346268 Email ID. rdg@mnnit.ac.in	**(Ph.D. Supervisor)**
Prof. (Dr.) C. Jeganathan, Ph.D. & PDF Department of Remote Sensing, Birla Institute of Technology - Mesra, Ranchi, Jharkhand, **India** PIN. 835215, Mob No. +91-7763859236 Email ID. jeganathanc@bitmesra.ac.in	**(M.Tech. Supervisor)**
Prof. (Dr.) Atiqur Rahman, Ph.D. Department of Geography, Jamia Millia Islamia, New Delhi, **India** PIN.110025 Mob No. +91-9873115404, Email ID. arahman2@jmi.ac.in or, ateeqgeog@yahoo.co.in	**(M.A. Supervisor)**
Prof. (Emeritus) Yuji Murayama, Ph.D. & PDF Faculty of Life and Environmental Sciences, University of Tsukuba, 1-1-1 Tennodai, Tsukuba City, Ibaraki 305-8572, **Japan** Email ID.: mura@geoenv.tsukuba.ac.jp	**Co-author in published SCI indexed paper**
Prof. (Dr.) Manjula Ranagalage, Ph.D. & PDF Department of Environmental Management, Faculty of Social Sciences and Humanities, Rajarata University of Sri Lanka, Mihintale 50300, **Sri Lanka** Email ID.: manjularanagalage@ssh.rjt.ac.lk	**Co-author in published SCI indexed paper**
Prof. (Emeritus) Nigel E. Stork, Ph.D. & PDF Environmental Future Research Institute, Griffith School of Environment, Nathan Campus, Griffith University, 170, Kessels Road, Nathan, QLD 4111, **Australia** Email ID.: nigel.stork@griffith.edu.au	**Co-author in working SCI indexed paper**