

**Name** Dr. M. LALITHA  
**Date of birth** 10/07/1985  
**Designation** Senior Scientist  
**Qualification** Ph.D (Soil Science & Agricultural Chemistry)  
**Email id** [Lalitha.M@icar.gov.in](mailto:Lalitha.M@icar.gov.in) [msslalit@yahoo.co.in](mailto:msslalit@yahoo.co.in)



### Educational Qualifications

S.No	Degree	Year	Subject	University/Institution	% of marks
1.	B.Sc (Ag.)	2006	Agriculture	Tamil Nadu Agricultural University	8.78
2.	M.Sc (Ag.)	2008	Soil Science and Agricultural chemistry	Tamil Nadu Agricultural University	9.07
3.	Ph.D	2011	Soil Science and Agricultural chemistry	Tamil Nadu Agricultural University	9.41

### Professional Experience

10 years of experience and expertise in the field of land resource inventorisation, land degradation assessment and soil and water quality assessment

### Research Areas

1. Land resource inventory and mapping
2. Land degradation assessment
3. Soil and water quality assessment
4. Spectral assessment of soil properties

### International Experience – Nil

### Awards

1. IPI Junior Research Fellowship
2. DCSCMS- Senior Research Fellowship (Remote sensing for agricultural applications)
3. Outstanding Young Scientist Award-2021 by ICAR-NBSS&LUP
4. Best paper awards – 5 (by ISSLUP-2016&2022, ISSS-2015, NCGST-2019)

### Honours/Recognitions

1. Reviewer for the journals Environmental science and pollution research and Archives of agronomy and soil science

### Ten Best Research Papers along with NAAS Rating-2022

S.No	Publication	NAAS Rating
1.	Dharumarajan, S., <b>M. Lalitha</b> , C. Gomez, R. Vasundhara, B. Kalaiselvi, Rajendra Hegde. 2022. Prediction of soil hydraulic properties using VIS-NIR spectral data in the semiarid region of Northern Karnataka Plateau. <i>Geoderma Regional</i> , 28 (2022) e00475	8.81
2.	<b>Lalitha, M.</b> , Subramanian, D., Khandal, S. Rajendra Hegde. 2021. Modelling and Mapping of Salt-Affected Soils through Spectral Indices in Inland Plains of Semi-arid Agro-Ecological Region. <i>J Indian Soc Remote Sens.</i> , <a href="https://doi.org/10.1007/s">https://doi.org/10.1007/s</a>	7.56

[12524-021-01321-w](#)

3. **Lalitha, M.**, Anil Kumar, K. S., Nair, K. M., Dharumarajan, S., Arti Koyal, Shivanand Khandal, Kaliraj S. & Rajendra Hegde. 2021. Evaluating pedogenesis and soil Atterberg limits for inducing landslides in the Western Ghats, Idukki District of Kerala, South India. *Natural Hazards*, <https://doi.org/10.1007/s11069-020-04472-0> 9.10
4. **Lalitha, M.**, S. Dharumarajan, B.Kalaiselvi., K. Shivanand, Arti Koyal, K. Seenipandi, and Rajendra Hegde. (2021). Hydrochemical characterization and groundwater quality in Cauvery deltaic fluvial plains of Southern India. *Environmental Science and Pollution Research*. <https://doi.org/10.1007/s11356-021-13467-8> 10.22
5. **Lalitha. M.**, Hegde, R., S. Dharumarajan, and Arti Koyal. 2021. Soil Fertility Evaluation in Rainfed Regions of Different Agro-Climatic Zones of Karnataka, India. *Agric Res*. <https://doi.org/10.1007/s40003-021-00561-zS> 5.95
6. **Lalitha M.**, Dharumarajan S, Suputhra A, Kalaiselvi B, Hegde R, Reddy RS, Prasad CRS, Harindranath CS, Dwivedi BS. 2021. Spatial prediction of soil depth using environmental covariates by quantile regression forest model. *Environ Monit Assess*. 193(10):660. doi: 10.1007/s10661-021-09348-9 8.51
7. Dharumarajan, S., Rajendra Hegde, **M. Lalitha**. 2021. Modelling of soil depth and hydraulic properties at regional level using environmental covariates- A case study in India. *Geoderma Regional*, 27. <https://doi.org/10.1016/j.geodrs.2021.e00439> 8.81
8. Dharumarajan S., **Manickam Lalitha**, KV Niranjana and Rajendra Hegde. 2022. Evaluation of digital soil mapping approach for predicting soil fertility parameters—a case study from Karnataka Plateau, India. *Arabian Journal of Geosciences*, 15:386. <https://doi.org/10.1007/s12517-022-09629-8> 7.83
9. Ranjan Bhattacharyya, B.N. Ghosh, P.K. Mishra, Biswapati Mandal, ChSrinivasa Rao, Dibyendu Sarkar, K. Das, K.S. Anil Kumar, **M. Lalitha**, Kuntal Hati and Alan Franzluebbers. 2015. Soil Degradation in India: Challenges and Potential Solutions. *Sustainability*, 7(4), 3528-3570. 9.25
10. Duraisamy Vasu, S.K. Singh, Nisha Sahu, Pramod Tiwary, P. Chandran, V.P. Duraisami, V. Ramamurthy, **M. Lalitha**, B. Kalaiselvi. 2016. Assessment of spatial variability of soil properties using geospatial techniques for farm level nutrient management. *Soil and Tillage Research*, 169, 25–34 11.39

**Total Publications (Peer-reviewed journals only)**

International: 18

National: 38

Google Scholar link: <https://scholar.google.com/citations?user=SeIRLc8AAAAJ&hl=en>

Research Gate link: <https://www.researchgate.net/profile/Lalitha-Manickam>