

KEERTHANA K

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OBJECTIVE:

Detail-oriented Civil Engineer (Bachelor's in Civil Engineering and Master's in Remote Sensing) with solid skills in concepts and hands-on experience of various software. Completed internship at Indian Institute of Geomagnetism (EGRL) and certification course on NASA ARSET – Fundamentals of Remote Sensing, AutoCAD and Revit Architecture.

EXPERIENCE:**Research Fellow****09/2023 – 10/2024**

CIIRC (Center for Incubation, Innovation, Research and Consultancy), Bengaluru, Karnataka - India

- Studied cryosphere changes using remote sensing and geospatial tools such as QGIS, ArcGIS, SNAP and ENVI.
- Collect and analyze field data using GPS and DNSS in the Himalayan Region.
- Manage research projects on cryosphere and prepare reports, chapters and journals.
- Present research at conferences and contribute to publications.
- Mentor junior researchers and stay updated through workshops and seminars.

Assistant Professor**03/2022 – 05/2023**

PSN Engineering College, Tirunelveli, Tamil Nadu - India

- Teach three undergraduate engineering courses per semester
- Prepare and conduct undergraduate seminars
- Guide and mentor undergraduate students in research projects
- Design processes to increase student performance
- Provide academic support to the Head of the Department of Civil Engineering
- Represented the department at academic events
- Attended faculty meetings and Curriculum development

INTERNSHIP:

Intern at Indian Institute of Geomagnetism (EGRL), Tirunelveli

05/2019-06/2019

- Study of the zonal and meridional wind velocity using Medium Frequency RADAR over the Tirunelveli Region

PROFESSIONAL / SOFTWARE SKILLS:

- QGIS
- ArcGIS
- ENVI
- SNAP
- Revit Architecture
- AutoCAD
- MATLAB
- PHOTOMOD
- MS-Office Tools

ACADEMIC PROJECTS

- M.TECH (Remote Sensing)
 - Major Project at Indian Institute of Geomagnetism (EGRL) - Tirunelveli
 - Long Term Variabilities of Mesosphere and Lower Thermosphere (MLT) Winds from Medium Frequency (MF) and Meteor Radar Over Equatorial Latitudes.
- B.E (Civil Engineering)
 - Major Project
 - Experimental study on pervious concrete using oil palm kernel shell as partial replacement of coarse aggregate.
 - Mini Project
 - Design of shopping mall
 - Building Plan
 - CBR Test

ACADEMIC QUALIFICATION:

Institute Name	Year of Passing	University/Board of Exam	CGPA / Percentage
Anna University Regional Campus - Tirunelveli	2020	Anna University (M.Tech)	8.3
Francis Xavier Engineering College	2018	Anna University (B.E)	7.13
Little Flower Matric Higher Secondary School	2014	HSC	78 %
Sarah Tucker Girls Higher Secondary School	2012	SSLC	77.6 %

CERTIFICATES:

- NASA ARSET – Fundamentals of Remote Sensing
- AutoCAD
- Revit Architecture

CO-CURRICULAR ACTIVITIES

- Participated in ESRI Italy webinar – Imagery in modern GIS: a key element
- Participated in MDPI EO&GEO Series:GIS day webinar – GeoAI Frontiers: Advancing Trajectory Analysis and LLMs for Future of Autonomous Geospatial Systems
- Presented Poster in Second Indian Cryosphere Meet (ICM-2025)
- Won Best paper Award from CSCT 2024 for Estimating supraglacial Debris cover in Sikkim Himalayas using Landsat-8 Data: Insights from Supervised classification and NDSI Thresholding
- Participated in IIT Bombay FOSSEE Geospatial Mapathon (Individual)
- Participated in IIT Bombay FOSSEE Geospatial Mapathon (Group)
- Paper presentation (Assessment of Eastern Himalayan Glacier Cryo-Facies: A Case Study of Teesta Basin, Sikkim Using Satellite Image Classification Technique)
- Participated in NCHC 2023
- Participated in icSoftComp 2023
- Participated in Naan Mudhalvan Training program
- Participated in the one-day workshop on “CONCRETE MIX PROPORTIONING”
- Participated in the “CONCRETE CUBE DESIGN CONTEST”

SOFT SKILLS

- Time Management
- Always owed with “can-do-spirit”
- Adaptability
- Problem-solving
- Acceptance of responsibility
- Team work
- Passion for learning

LANGUAGES KNOWN

- English, Tamil, Hindi (Basic)

PUBLICATIONS

- Keerthana, K., Geetha Priya, M., Raghavendra, K.R. (2026). Estimating Supraglacial Debris Cover in the Sikkim Himalayas Using Landsat 8 Data: Insights from Supervised Classification and NDSI Thresholding. In: Saraswat, M., Rajan, A., Chakravorty, A. (eds) Congress on Smart Computing Technologies. CSCT 2024. Smart Innovation, Systems and Technologies, vol 122. Springer, Singapore. https://doi.org/10.1007/978-981-96-6250-0_36
- Kirubakaran, K., Murugesan, G.P. (2025). Assessment of Eastern Himalayan Glacier Cryo-facies: A Case Study of Teesta Basin, Sikkim Using Satellite Image Classification Technique. In: Shukla, P.K., Bhatt, A., Mittal, H., Engelbrecht, A. (eds) Computer Vision and Robotics. CVR 2024. Algorithms for Intelligent Systems. Springer, Singapore. https://doi.org/10.1007/978-981-97-8868-2_18
- Keerthana, K., Geetha Priya, M. (2024). Evaluating the Energy Budget of the Nivlisen Ice Shelf in the Antarctic Region. International Journal of Science, Engineering and Technology ISSB(O): 2348 -4098 – ISSN(P): 2395-4752. <http://doi.org/10.61463/ijset.vol.12.issue6.406>
- Swaminathan, A. N., Sathiya, S., Keerthana, K., Makeswari, N., & Dorathy, L. A. (2023). An experimental study on glass fiber reinforced concrete with replacement of cement with metakaolin using robo sand as a fine aggregate. Dogo Rangsang Research Journal (UGC Care Group I), 13(2), 71.
- Suresh, M., Vimalan, P. M. A. S., Keerthana, K., Brown, S. M., & Vasumathi, D. (2023). An experimental study on tyre waste and waste polythene used in wearing surface of flexible pavement. Dogo Rangsang Research Journal (UGC Care Group I), 13(2), 7.