

CURRICULUM VITAE

Dr. SARANYA P B.E. M. Tech., Ph.D.

**Assistant Professor
Department of Civil Engineering
NITK Surathkal.**

EDUCATION

Program	Institution	%/CGPA	Year of completion
Ph. D in Environmental Engineering	Indian Institute of Technology Madras	10	June 2019
M. Tech in Environmental Engineering	National Institute of Technology Tiruchirappalli	9.5	July 2013
B.E in Civil Engineering	Thiagarajar College of Engineering (Affiliated to Anna University)	9.46	May 2011
HSC	T. V. S. Higher Secondary School, Madurai	94.08	May 2007
SSLC	T. V. S. Higher Secondary School, Madurai	94.2	May 2005

EMPLOYMENT

Employer	Position Held	Date of Joining	Date of Leaving
NITK Surathkal	Assistant Professor (AGP 7000)	06-10-2026	-Till date-
NITK Surathkal	Assistant Professor (AGP 6000)	18-10-2023	06-10-2026
NITTE University	Assistant Professor (Grade III)	01-03-2021	17-10-2023
NIT Trichy	Assistant Professor (Ad hoc)	05-08-2013	01-01-2014

SCHOLASTIC ACHIEVEMENTS

- Received **Shree Gaayathree Devi Award** for scoring highest CGPA in all the courses registered as a research scholar at IIT Madras during the convocation held in September 2019.
- **MHRD, Government of India Research Scholarship** for pursuing Ph.D. at IIT Madras (2014-2019).
- Awarded **Gold medal** for securing first position in MTech Environmental Engineering, National Institute of Technology, Tiruchirappalli.
- Received **Best Outstanding Student Award** in MTech Environmental Engineering for the year 2012-13 by the Alumni Association of National Institute of Technology, Tiruchirappalli.
- Awarded **Academic Proficiency Prize** for securing first rank in I & II semesters during 2011-12 at National Institute of Technology, Tiruchirappalli.
- **MHRD, Government of India Scholarship** for pursuing M. Tech at NIT Trichy (2011-2013).
- Won **Silver medal** for securing first position (1st-6th Semester) in undergraduate (2007-2011) at Thiagarajar College of Engineering, Madurai.
- Awarded **Academic Proficiency Prize for Scoring centum in Mathematics** in both SSLC and HSC Board Examinations. (2005 & 2007).

Saranya Packiam

RESEARCH INTEREST

- Air pollution monitoring and modeling
- Application of Machine learning and artificial Intelligence techniques for modeling air pollutant concentrations
- Indoor air quality
- Source apportionment of air pollutants
- Environmental Impact Assessment

LIST OF PUBLICATIONS

INTERNATIONAL JOURNAL (5)

Saranya, P., Ramesh, S. T., & Gandhimathi, R. (2022). Coagulation performance evaluation of alginate as a natural coagulant for the treatment of turbid water. *Water Practice & Technology*, 17(1), 395–404. <https://doi.org/10.2166/wpt.2021.123>

Mohan, S., & Saranya, P. (2019). A novel bagging ensemble approach for predicting summertime ground-level ozone concentration. *Journal of the Air & Waste Management Association*, 69(2), 220–233. <https://doi.org/10.1080/10962247.2018.1534701>

Mohan, S., & Saranya, P. (2019). Assessment of tropospheric ozone at an industrial site of Chennai megacity. *Journal of the Air & Waste Management Association*, 69(9), 1079–1095. <https://doi.org/10.1080/10962247.2019.1604451>

Saranya, P., Ramesh, S. T., & Gandhimathi, R. (2014). Effectiveness of natural coagulants from non-plant-based sources for water and wastewater treatment—A review. *Desalination and Water Treatment*, 52(31–33), 6030–6039. <https://doi.org/10.1080/19443994.2013.812993>

Satheesh, A., Gangaputhiran, S., & Packiam, S. (2025). Comprehensive assessment on utilization of iron ore tailing as backfill material in mechanically stabilized earth wall. *Indian Geotechnical Journal*, 55, 636–651. <https://doi.org/10.1007/s40098-024-01001-9>

Deekshitha, K., Hegde, T. A., Saranya, P., & Bhat, A. K. (2023). Environmental pollutant hydrogen sulphide and its detection – A brief review. *Materials Today: Proceedings*. <https://doi.org/10.1016/j.matpr.2023.04.491>

INTERNATIONAL AND NATIONAL CONFERENCE(4)

Mohan, S., and P. Saranya, (2016) Modeling of ground level ozone in an industrial area using data mining techniques. *International conference on Environmental Science and Technology (ICEST-2016)*, Houston, Texas, USA, (6-10th June, 2016).

Deekshitha K, Thanushree A Hegde, Saranya P, Thangamani R (2023) Performance analysis of resistive based environmental sensors for air pollution monitoring - A review. *International Conference on Civil Engineering Trends and Challenges for Sustainability (CTCS 2021)*, Lecture Notes in Civil Engineering (Springer Publications).

Saranya, P and S. Mohan (2016). Seasonal and diurnal variation of air pollutants in an industrial area. National conference on Energy and Environment, organized by CODISSIA and IIT Madras, (16-17th September, 2016).

Saranya, P and S.T. Ramesh (2013). Treatment of turbid water using algal alginate. National Conference on the recent trends in Civil Engineering, organized by Bharathidasan University.

BOOK CHAPTERS(2)

Deekshitha, K., Hegde, T. A., Saranya, P., & Thangamani, R. (2023). Performance analysis of resistive-based environmental sensors for air pollution monitoring—A review. In Lecture Notes in Civil Engineering (pp. 951–966). Springer.

Balulmath, A. B., Sridhar, G., & Saranya, P. (2023). A critical review on potential use of waste foundry sand in geotechnical and pavement applications. In Geotechnics: Learning, Evaluation, Analysis and Practice (GEOLEAP). Lecture Notes in Civil Engineering. Springer, Singapore.

PROJECT GUIDANCE

UG – 5 ;

PG – 10 completed; 6 on-going;

PhD – 2 (on-going)

RESEARCH PROJECTS(3)

Principal Investigator

Funding Agency	Title of the Project	Project Cost	Duration (months)	Current status
ANRF-ARG	Real Time Measurement of Biogenic VOCs Using PTR-TOF-MS and their Role in Secondary Organic Aerosol Formation at a High-Altitude Site in the Western Ghats – Southern India	33,91,200	36	Ongoing

Co- Principal Investigator

Funding Agency	Title of the Project	Project Cost (INR Lakhs)	Duration (months)	Current status
Ministry of Jal Shakti, GoI	Condition Assessment and River Basin Management plan for Krishna River basin	6 Crores 27 Lakhs	36	Ongoing
GAIL	Isolation, Identification and Characterization of Granular Start-up Catalyst (GSC) Capable of Degrading Teraphthalic Acid Containing Industrial Effluent	1 Crore 25 Lakhs	24	Ongoing

Patents

Patent Title	Year	Status	Other details
UNIVERSAL WATER TAP AERATOR AND BIOFILTER SYSTEM	2024	Published	Cost effective and eco-friendly way of treating the water using the naturally available materials.
ZIP-TAG AERATOR AND BIOFILTER WATER PURIFICATION SYSTEM	2024	Published	Modification is done in the conventional aeration system using sustainable material.

ADMINISTRATIVE RESPONSIBILITIES

1. **Member-** Internal Complaints Committee of the Institute – NITK Surthkal.
2. **Member-** Time-table committee (2024-2025) – Department of Civil Engineering - NITK Surthkal.
3. **Faculty Advisor- B.Tech (2024-2028 Batch)** - NITK Surthkal.
4. **Coordinator** (i/c for Environmental Auditing) - Institute Auditing, NMAMIT, NITTE (Deemed to be University).
5. **Laboratory In-charge** (2021-2023). Environmental Engineering Laboratory- NMAMIT, NITTE (Deemed to be University).
6. **Coordinator** & Member of Magazine Committee – Institute level and Department level, NMAMIT, NITTE (Deemed to be University).
7. **Faculty in-charge** – Sessional Examinations, NMAMIT, NITTE (Deemed to be University).
8. **Member** – Board of Studies (U.G program), NMAMIT, NITTE (Deemed to be University).

COURSES TAUGHT (UG & PG)

- Environmental Engineering
- Solid waste Management
- Air quality management
- Models for water and air quality
- Water Supply Engineering
- Waste Water Engineering
- Environmental Impact Assessment
- Environmental Studies
- Elements of Civil Engineering
- Engineering Mechanics
- Physico-chemical treatment of water and wastewater

SYMPOSIUM ORGANISED

Title	Year	Type	Organizing Role	Remarks
River Health Evaluation and Protection (RHEAP-2025)	2025	Symposium	Convenor	Theme: Fluvial Geomorphology, Remote Sensing, Pollution Studies, & Biological Profiling for Sustainable River Systems.