1. BIODATA

Name of the Candidate : K. BAVITHRA

D.O.B : 11.06.1998

Discipline : Civil Engineering

Gender : Female

State : Tamil Nadu

Area of Interest : Construction planning and management, Concrete technology

Mail Id : bavithrak11698@gmail.com & bavicivil@nec.edu.in

Phone No : 9344845691

2. CURRENT STATUS:

Currently completed a Full-time Ph. D, since July 2022 in Infrastructure Engineering and Management at Mepco Schlenk Engineering College, Sivakasi, under the supervision of Dr. R. Mohana, Professor, Civil Engineering Department. I have submitted my Ph.D thesis which is entitled "Development of Eco-friendly Concrete using Waste-derived Nano fillers and Machine Learning Predictions". My research focuses on [Waste management, nano materials, Durability of Concrete, Machine learning, Life cycle Assessment, Sustainability].

3. ACADEMIC PERFORMANCE:

S.No	Class/Course	Full time/Part time	Institute / University	Month & Year of passing	Class	% of Marks/ CGPA
1.	Ph.D (Infrastructure Engineering and Management)	Full time	Mepco Schlenk Engineering College, Sivakasi.	Thesis Submitted (January 2026)	Course Work - First Class with Distinction	9.26
2.	ME (Infrastructure Engineering and Management)	Full time	Thiagarajar College of Engineering, Madurai.	May, 2021	First Class with Distinction	9.26
3.	BE (Civil Engineering)	Full time	Mepco Schlenk Engineering College, Sivakasi.	April, 2019	First Class with Distinction	9.03
4.	HSC	Full time	St. Joseph's Girls' Higher Secondary School, Dindigul.	March, 2015	First Class	93.75%
5.	SSLC	Full time	St. Joseph's Girls' Higher Secondary School, Dindigul.	March, 2013	First Class	97.5%

4. PERSONALITY TRAITS:

- Good communication skills
- Determination and Hardworking
- Potential to develop new responsibilities
- Punctual and dedication
- Excellent team player

5. PUBLICATIONS

A. Publications in Journals:

S. No.	Title	Authors	Name of the Journal	National / International	Impact factor	Index	Year / Vol.
1.	Influence of nano materials on the macro and micro structural behaviour of high performance concrete using interfacial transition zone approach	K. Bavithra and R. Mohana	Construction and Building Materials	International - **Elsevier**	8	SCI (**Q1**)	2023/ 397
2.	Sustainable development of durable and novel nano GGBS impregnated eco-friendly green concrete using micro structural characterization and technoeconomic sustainability analysis	K. Bavithra and R. Mohana	Construction and Building Materials	International - **Elsevier**	8	SCI (**Q1**)	2025/ 470
3.	ANN-Based Machine Learning Approach for Predicting the Environmental Impacts of Emerging Nano Impregnated High-Performance Concrete	K. Bavithra and R. Mohana	Journal of Computing in Civil Engineering	International - **ASCE**	6.5	SCI (**Q1**)	2026
4.	Effect of waste-derived nano pozzolans on ITZ densification in high-durability and low-carbon concrete	K. Bavithra and R. Mohana	Journal of Sustainable Cement-Based Materials	International – **TAYLOR & FRANCIS**	4.6	SCI (**Q1**)	2026

B. Patents Granted/Published:

Sl. No.	Title	Field of Invention	Type (Utility/ Design)	Applicants	Granted/ Published	Year
1.	Development of Eco Nano-GGBS: A Sustainable, Cost-Effective and Energy-efficient Nano Material for Structural Applications from Steel Industry Byproducts	Mechanical Engineering	Utility	R. Mohana and K. Bavithra	Published	January 2025

6. ACADEMIC PROJECTS:

Sl. No.	Project phase	Title	Institute
1.	PG (Phase I)	Lean and Value management in construction projects	Thiagarajar College of Engineering, Madurai.
2.	PG (Phase II)	Value through Lean – A Residential Building Case study	Thiagarajar College of Engineering, Madurai.
3.	PG (Mini project)	Integration of Lean and Sustainability	Thiagarajar College of Engineering, Madurai.
4.	UG (Phase I-Design project)	Design of Prestressed Concrete Bridge	Mepco Schlenk Engineering College, Sivakasi.
5.	UG (Phase II)	Hybrid Natural Composite as a Potential Wood Substitute Material	Mepco Schlenk Engineering College, Sivakasi.

7. SEMINARS /CONFERENCES/WORKSHOPS ATTENDED:

Sl. No.	Title	Period	Institute	Remarks
1.	Industrial Safety Training	February 2020	Thiagarajar College of Engineering, Madurai.	Participated
2.	Select Series Course on Building Design and Energy Analysis by Bentley Institute	01.05.2021 to 22.05.2021	Thiagarajar College of Engineering, Madurai.	Participated
3.	FDP on Managing Infrastructure projects using Emerging Technologies (MIPET – 2021)	07.06.2021 to 11.06.2021	Thiagarajar College of Engineering, Madurai.	Participated

8. MEMBERSHIP IN PROFESSIONAL BODIES:

SI. No	Name of the Membership	Professional body	Membership ID	Granted Year	Membership period
1.	Associate Member	The Institution of Engineers India (IEI)	AM3054481	December 2022	Life time membership

9. CO-CURRICULAR ACTIVITIES:

SI.No	Name of the club	Responsibilities held	Period	Institute	Nature of activities for the betterment of the college
1.	International Association of Civil Engineering Students (IACES)	Co-Chair person	June 2018 to April 2019	Mepco Schlenk Engineering College, Sivakasi.	Club activities

10. CONTRIBUTIONS:

I have involved to write many research proposals under the guidance of my supervisor.

11. COMPUTER PROFICIENCY:

Basic level of the following software

- Building Information Modeling (BIM),
- Primavera
- OPEN-LCA
- STAAD Pro
- Auto CADD
- MATLAB Simulink

12. EXPERIENCE:

(Fresher)

- Research: 3.5 years

13. EXPERTISE:

- Sustainable building materials
- Nano materials
- Life cycle assessment
- Environmental impact assessment
- Lean and value management
- Machine learning (Basics)

14. LANGUAGES:

- English – Full professional proficiency
- Tamil – Full professional proficiency
- Hindi – Limited working proficiency

15. REFERENCES:

Member 1: Professor

Dr. R. Mohana,
Department of Civil Engineering,
Mepco Schlenk Engineering College, Sivakasi 626 005.
70100 68026 & rmohana@mepcoeng.ac.in

DECLARATION:

I hereby declare that all the above-mentioned information given by me is true, complete and correct to the best of my knowledge and belief.

Place: Dindigul

Signature of the Applicant

(K. BAVITHRA)