

CURRICULUM VITAE

Shefali Aggarwal

Doctoral research scholar

Building Technology & Construction Management (BTCM)
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EDUCATION

Ph.D. (Civil Engineering)

Indian Institute of Technology Madras, Chennai, India.

*Aug 2022-
present*

M.E. (Structural Engineering)

Thapar Institute of Engineering & Technology, Patiala, Punjab, India.
Project title: Corrosion Inhibition Efficiency of Generic Compounds on Corroded
Reinforcing Bars under different environments in Simulated Concrete Pore Solution
CGPA: 9.44

Aug 2022

B. Tech. (Civil Engineering)

Khalsa College of Engineering & Technology, Amritsar, Punjab, India.
Project: Improvement of Bitumen Performance using Crumb Rubber in Bituminous
Concrete
CGPA: 9.06

Jul 2019

ACADEMIC ACHIEVEMENTS

- Qualified GATE Examination 2020 with Score-402, Marks-37.66 and Rank-12854.
- 2nd position at university level during graduation
- Gold Medal awardee in Civil branch during graduation.
- Best Student Awardee by Indian Society of Technical Education (ISTE) in 2018 held at Guru Nanak Dev Engineering College, Ludhiana.

PROJECTS UNDERTAKEN

B.Tech.

Major Project:

Improvement of Bitumen Performance using Crumb Rubber in Bituminous Concrete

- Complete procedure done on student level including the material selection.
- Cylindrical specimens were formed on which various tests were done using Marshall Stability test Apparatus.

M.E.

Minor Projects:

Effect of partial replacement of cement by waste glass powder on concrete strength

- Complete literature review on effect of glass powder on the properties of concrete in hardened state like compressive strength, tensile strength and flexural strength.

Master's dissertation:

Corrosion Inhibition Efficiency of Generic Compounds on Corroded Reinforcing Bars under different environments in Simulated Concrete Pore Solution

- Four different organic inhibitors were used and their efficiency in already corroded steel was investigated in concrete pore solution.
- The inhibitory performance of chemicals was investigated using electrochemical measurement technique.
- The inhibitory effect was measured in all three types of environments.
- Surface analysis of steel tablets was performed using SEM, FTIR, optical microscopy etc.

INDUSTRIAL TRAINING

➤ **6 weeks institutional training at KCET, Amritsar (June-July 2015)**

- Project Undertaken: Construction of a study table under carpentry shop.

➤ **2 weeks survey camp at Dalhousie (June 2016)**

- Practical knowledge in surveying under actual field conditions using instruments like theodolite, plane table, dumpy level

➤ **2 months software training at Sigma Technologies, Amritsar (Jan-Feb 2019)**

Software Learnt: STAAD Pro, 3Ds MAX.

➤ **4 months industrial training at Mattewal Constructions, Amritsar (Feb-May 2019)**

- Project Undertaken: Construction of a Hospital Building.

TECHNICAL SKILLS

Software Tools: AutoCAD, 3Ds MAX, STAAD Pro, MATLAB, JMP

SEMINARS/WORKSHOPS/CONFERENCES ATTENDED AND PAPERS PRESENTED

- Aggarwal S., Tiwari A and Goyal S., "Corrosion inhibition efficiency of generic compounds on corroded reinforcing bars under different environments in simulated concrete pore solution" poster presentation at Proceedings of the International Conference and Expo on Corrosion (CORCON 2022), Udaipur, India, September 19-22, 2022.

REFERENCES

Dr. Radhakrishna G Pillai

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Indian Institute of Technology Madras
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Dr. Shweta Goyal

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