# Curriculum vitae

**Dr. Deepa. S**
M Tech, Ph. D. (Civil Engineering)

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| **Name:** | Dr. Deepa. S |
| **Educational Qualification:** | Ph. D. Civil Engineering |
| **Email:** | sdeepa8813@gmail.com<br>sdeepa.crri@nic.in |

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| **Address** | Scientist<br>Pavement Evaluation Division<br>Central Road Research Institute (CSIR-CRRI)<br>Delhi – Mathura Road<br>New Delhi, 110025 |

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| **Educational Details:** | **Ph. D.:** Civil Engineering (2013-2019)<br>Indian Institute of Technology Madras<br><br>**M Tech:** Traffic and Transportation Planning (2010-2012)<br>National Institute of Technology, Calicut<br>CGPA : 9.15 (First Class with Distinction)<br><br>**B Tech**:Civil Engineering (2006-2010)<br>NSS College of Engineering, Palakkad<br>Affiliated to Calicut University<br>81.12% (First Class with Honours) |

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| **Field of research:** | Transportation Engineering |
| **Ph. D. area of research:** | Pavement Engineering |
| **Ph. D. Dissertation:** | Influence of Test Methods on Mechanical Characterization of Bituminous Mixtures |
| **Ph. D. Research Guides:** | Dr. J. Murali Krishnan (Professor, Civil Engineering Department, IIT Madras)&<br>Dr. U. Saravanan (Professor, Civil Engineering Department, IIT Madras) |
| **M Tech Dissertation:** | Safety Prediction Tool for Signalized Junctions in Urban Areas |
| **M Tech Guide:** | Dr. M.V.L.R. Anjaneyulu<br>Professor, Civil Engineering Department, NIT Calicut |

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| **Areas of Work Interest:** | Pavement Engineering<br>• Bituminous Material Characterization<br>• Linear Viscoelasticity and Viscoelastic Modeling<br>• Sustainable Highway Pavements - Recycling Techniques and Use of Innovative Materials<br>• Pavement Evaluation and Management |

## Academic Achievements

- Secured University third rank in B Tech from Calicut University (2010)
- Secured state-level 9$^{th}$ rank in SSLC examination (2004)
- MHRD fellowship for M Tech at NIT Calicut (2010-2012)
- MHRD fellowship for Ph.D. at IIT Madras (2013-2018)

## Teaching and Research Experience

- Worked as Assistant Professor in MES Engineering College, Kuttippuram, Kerala during 2012-2013
- Teaching Assistant at Indian Institute of Technology Madras 2013-2017
- Scientist at CSIR-Central Road Research Institute, New Delhi, 30 June 2021 onwards

**Awards:** Received **Young Woman Researcher in Pavement Engineering** at 9th Venus International Women Awards (VIWA 2024)

**Journal Publications**

1. S. Deepa, U. Saravanan & J. Murali Krishnan (2019) On measurement of dynamic modulus for bituminous mixtures, International Journal of Pavement Engineering, 20:9, 1073-1089, DOI: 10.1080/10298436.2017.1380809 (SCI Q1, Impact Factor 3.4)

2. Gavadakatla Vamsikrishna, Deepa Sasidharan, Gottumukkala Bharath, Sarvesh P. S.Rajput and Kranthi Kumar Kuna, "Performance evaluation of dense graded emulsion mixes with rejuvenated reclaimed asphalt pavement", *Road Materials and Pavement Design*, 2023. https://doi.org/10.1080/14680629.2023.2225636 (SCI Q1, Impact Factor 3.4)

3. Deepa Sasidharan, U. Saravanan, J. Murali Krishnan, "A methodology for post-processing the four-point beam bending data and computing stiffness modulus using harmonic analysis", *Construction and Building Materials*,396-132164, 2023. https://doi.org/10.1016/j.conbuildmat.2023.132164 (SCI Q1, Impact Factor **7.4**)

4. Arunkumar Goli, Deepa Sasidharan, Raj Kumar B and Gottumukkala Bharath, "Effect of Curing Regime on Mechanical Characteristics of Cold Recycled Bituminous Mixes", Materials and Structures, 56:138 (2023) https://doi.org/10.1617/s11527-023-02229-2 (SCI Q1, Impact Factor 3.4)

5. Ayush Gupta, Deepa Sasidharan, Bharath Gottumukkala, and Siksha Swaroopa Kar, "Evaluation of healing performance of blended reclaimed asphalt binders with rejuvenators based on rheological and chemical properties", Sādhanā 48, 139 (2023). https://doi.org/10.1007/s12046-023-02213-0 (SCI Q2, Impact Factor 1.4)

6. Deepa Sasidharan, Anusha Toshikhani, Bharath Gottumukkala, and Jyoti Yadav, "Characterization of Recycled Asphalt Pavement Materials for Use in Hot-Mix Asphalt Mixes", Journal of Testing and Evaluation, 51(5), 2023. https://doi.org/10.1520/JTE20220533 (SCI Q3, Impact Factor 0.9)

7. SaiMadhu, K., Sasidharan, D., Kadiroli, K. et al. Mechanical characterization of Rice Husk Ash incorporated bituminous concrete. Innov. Infrastruct. Solut. 9, 267 (2024). https://doi.org/10.1007/s41062-024-01587-2 (SCI Q2, Imapct Factor 2.3)

**Conferences**

1. S Deepa, U Saravanan, J Murali Krishnan, "*Issues related to measurement of dynamic modulus of bituminous mixtures",* Functional Pavement Design: Proceedings of the 4th Chinese-European Workshop on Functional Pavement Design (4th CEW 2016, Delft, The Netherlands, 29 June-1 July 2016)

2. S Deepa, J Murali Krishnan, "*An Investigation on Resilient Modulus of Bituminous Mixtures*", Lecture Notes in Civil Engineering Book Series, (LNCE,volume 45), 2019

3. Deepa Sasidharan, Anusha Toshikani, Gottumukkala Bharath, "*Characterization of Recycled Asphalt Pavement using basic tests*", ICCMS-2022: International Conference on advances in Construction Materials and Structures (online), NIT Calicut, December 14-18, 2022

4. Ankit Mishra, Vasant G Havanagi, Deepa Sasidharan, Saraswati Setia, "*Cement-Stabilized Soil For Sustainable Road Construction*", National Conference on Advancements in Geotechnical Engineering and Infrastructural Development", Indian Geotechnical Society Jabalpur chapter, 19-20 November 2022.

5. Ankit Mishra, Vasant G Havanagi, Deepa Sasidharan and Saraswati Setia, "*Non-destructive techniques for quality control assessment of cement-stabilized soils*", International conference on "Recent Trends in Engineering and Sciences (RTES – 2023)" in the Hindi Language, SVNIT, Surat, 2-3 May 2023.

6. Anusha Toshikhani, Aravind Kunche, Deepa Sasidharan, Bharath Gottumukkala, "Applicability of cohesion test in the estimation of effective RAP binder", 9th Conference on Transportation Systems Engineering and Management (CTSEM 2023), National Institute of Technology, Warangal, October 12-14, 2023

7. Anusha Toshikhani, Aravind Kunche, Deepa Sasidharan, Bharath Gottumukkala, "Evaluation of Recycled Asphalt Pavement Materials using Simple Characterization Methods", 9th Conference on Transportation Systems Engineering and Management (CTSEM 2023), National Institute of Technology, Warangal, October 12-14, 2023

8. Aravind Kunche, S R Aswathy, Deepa Sasidharan, Bharath Gottumukkala, R Anil, "Investigating the Impact of Rejuvenators on 100% Rap Mixes Using Fragmentation Test", submitted to RAID 2024, NIT Calicut.

9. Trusha Dalal, Deepa Sasidharan, Bharath Gottumukkala and Anjum Mirza, "Performance Evaluation of 100% Reclaimed Asphalt Pavement Mixes", 10th Conference on Transportation Systems Engineering and Management (CTSEM 2024), VNIT Nagpur, July 19 – 20, 2024

**Other achievements**

- Faculty in an international Customized Training on Highway Development and Management Tool (HDM-4) at Road Development Authority, Sri Lanka from September 21-25, 2023
- I have been assigned the role of a faulty (Assistant Professor) in AcSIR. I am handling the course 'Pavement Evaluation Techniques and Management', which is a 3-credit course.

**M Tech students**

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| 1 | Anusha Toshikhani | RASTA- Center for Road Technology, Bangalore | Characterization of RAP (Reclaimed Asphalt Pavement) using simple indicative tests | Completed |
| 2 | Kunche Sai Arvind | SVNIT Surat | An investigation to characterize the effectiveness of rejuvenator on RAP materials from various sources using simple test protocols | Completed |
| 3 | Sunny Kumar | SVNIT Surat | A study on healing potential of asphalt binders | Completed |
| 4 | Kallypalli Sai Madhu | SVNIT Surat | A study on the use of rice husk ash as filler in bituminous concrete | Completed |
| 5 | Ankit Mishra | NIT Kurukshetra | Non-destructive techniques for quality control assessment of cement-stabilized soils | Completed<br>Co-Guide |
| 6 | Trusha Dalal | LDCE AHMEDABAD | Performance Evaluation of 100% RAP mixes | Completed |
| 7 | Rajan Tank | Maharaja Sayajirao University, Gujarat | Estimation of fatigue model of FDR material using ement and bituminous emulsion | On-going |