

National Institute of Technology, Tiruchirappalli
National/International Conference _ Dr. Sunitha V

International/National Conference Proceedings

1. Anil Kumar Badita and **Sunitha, V.** "Evaluation of Performance Enhancers in Subgrade and Base Layers of Flexible Pavement", 2nd Conference on Transportation Systems Engineering and Management (CTSEM 2015), paper ID 135, May 2015.
2. Anjumol M Sadhu, and **Sunitha, V.**, "Effect of Binder Content on Moisture Susceptibility of Bituminous Mixtures at Different Test Conditions", International Virtual Conference on "Smart and Sustainable Development of Urban Green Infrastructure in India and Canada" (SSDUGI - 2022), Paper ID: SSDUGI_6, pp: 28-29, March 2022.
3. Ankit Kumar Singh, Sh. Satish Pandey, and **Sunitha, V.**, "Finite Element Analysis of Geocell Reinforced Flexible Pavements", International Virtual Conference on "Smart and Sustainable Development of Urban Green Infrastructure in India and Canada" (SSDUGI - 2022), Paper ID: SSDUGI_73, March 2022.
4. Anusudha Visvanathan, **Sunitha, V.** and Samson Mathew, "Experimental Studies on Coir Geotextile Reinforced Low Volume Rural Road", 6th Conference of the Transportation Research Group of India (CTRG-2021), 2021.
5. Anusudha, V., **Sunitha, V.** and Samson Mathew, "Finite Element Analysis on Coir Geotextile Reinforced Rural Roads", 7th Conference on Transportation Systems Engineering and Management, CTSEM 2020, PT 75-PT 79, December 2020.
6. Anusudha, V., **Sunitha, V.** Babu, C., Bhole, C.R., and Mathew, S., "Numerical Studies on Coir Geotextile Reinforced Flexible Pavement", IMAIREPAVE 2020, June 2020.
7. Arjun Siva Rathan R.T and **Sunitha, V.**, "Influence of Thickness Parameters on the Mechanical Behaviour of Interlocking Concrete Block Pavement", 6th Conference of the Transportation Research Group of India (CTRG-2021), 2021.
8. Arjun Siva Rathan, and **Sunitha, V.**, "Determination of Effective Elastic Modulus of Interlocking Concrete Block Pavement Wearing Layer", 8th International Conference on "Transportation Systems Engineering and Management" (CTSEM 2021) , 2021.
9. Arjun Siva Rathan, and **Sunitha, V.**, "Evaluation on the Influence of Bedding Sand Source in the Shear Behaviour of Interlocking Concrete Block Pavement", 7th Conference on Transportation Systems Engineering and Management, CTSEM 2020, PT48 - PT51, December 2020.
10. Arjun Siva Rathan, Aravind Sai, and **Sunitha, V.**, "Investigation on the Mechanical Properties and Structural Behaviour of Novel Pervious Interlocking Paver Block", Transportation Research Board (TRB) 100th Annual Meeting , January 2020.
11. Arjun Siva Rathan, **Sunitha, V.** and Raunak Kumar Dixit. "Eco-friendly use of Waste Granite Fines in Concrete Paving Block", International Conference on Desalination, 132-133, 163, April 2018.

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12. Bhanu Prakash and **Sunitha, V.** "Effect of Copper Slag as a Replacement of Fine Aggregate in Sub-Base Layer", 2nd Conference on Transportation Systems Engineering and Management (CTSEM 2015), paper ID 134, May 2015.
13. Chandra Sekhar, and **Sunitha, V.**, "Study of Drainage Characteristics on Flexible Pavements", International Conference on Desalination, 164, April 2018.
14. Chetan R Bhole, **Sunitha, V.** and Samson Mathew. "Effect of Coir Geotextile as Reinforcement on the Load Settlement Characteristics of Weak Subgrade", International Conference on Structural Engineering and Construction Management (ICSECM), 87-94, December 2015.
15. Chetan R Bhole, **Sunitha, V.** Samson Mathew and A. Veeraragavan. "Field Implementation and Performance of Coir Geotextiles Reinforced Roads", 8th International Conference on Maintenance and Rehabilitation of Pavements (MAIREPAV8), July 2016.
16. D. Latha and **Sunitha, V.** "Experimental Investigation on Viscosity Behaviour of Binders", National Conference on Latest Advancements in Civil Engineering (LACE - 2014), April 2014.
17. J. Cyril Santhosh and **Sunitha, V.** "Optimization of Maintenance Strategies of Urban Roads in Trichirappalli City", Colloquium in Transportation Systems Engineering and Management, CTSEM 2014, paper ID 243, May 2014.
18. J. Cyril Santhosh and **Sunitha, V.** "Pavement Prediction Modelling for Urban Roads in Trichirappalli City", Annual Conference for Innovations and Developments in Civil Engineering, ACIDIC 2014, 819-826, May 2014.
19. Janani L, Raunak Dixit, **Sunitha, V.** and Samson Mathew, "Development of relationship between functional and structural characteristics of pavement", International Conference on infrastructure Development: Issues, Innovations and the Way Forward (ICID 2018), June 2018.
20. Janani L., **Sunitha, V.** and Samson Mathew, "Smartphone Sensor-Based Pavement Roughness Estimation", 7th Conference on Transportation Systems Engineering and Management, CTSEM 2020, PT52 – PT 56, December 2020.
21. K. Venu Madhav and **Sunitha, V.** "Effect of Flyash and Steel Slag in Sub-base Layer", Colloquium in Transportation Systems Engineering and Management, CTSEM 2014, paper ID 242, May 2014.
22. K. Venu Madhav and **Sunitha, V.** "Effect of Flyash and Steel Slag in Sub-base Layer", Annual Conference for Innovations and Developments in Civil Engineering, ACIDIC 2014, 70-79, May 2014.
23. Karan Salokhe, P.Sandhya Rani and **Sunitha, V.** "Urban Pavement Maintenance Management System For Tiruchirapalli City", 3rd Conference on Transportation Systems Engineering and Management (CTSEM 2016), 343-350, October 2016.
24. Karthik, K R, Rejani V. U, **Sunitha, V.** Samson Mathew and A. Veeraragavan. "Urban Pavement Maintenance Management System For Tiruchirapalli City", 8th International Conference on Maintenance and Rehabilitation of Pavements (MAIREPAV8), July 2016.

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25. Karthik. K. R, **Sunitha, V.** and Samson Mathew. "Pavement Management System for Urban Roads in Tiruchirappalli City", 2nd Conference on Transportation Systems Engineering and Management (CTSEM 2015), paper ID 124, May 2015.
26. Kawaldeep Singh Bhatia, **Sunitha, V.** and R. Chandra Prathap, "Effect of overloading on flexible pavement performance", International Virtual Conference on "Smart and Sustainable Development of Urban Green Infrastructure in India and Canada" (SSDUGI – 2022), Paper ID: SSDUGI_74, pp: 120-121, March 2022.
27. Latha, D., **Sunitha, V.** and Samson Mathew. "Experimental Investigation to Find Transition Temperature of VG-30 Binder", 117th International Conference on Civil Engineering and Applied Mechanics, ICCEAM 2015, 3520 - 3524, December 2015.
28. Lijin Rajeev and **Sunitha, V.** "Application of Jute and Coir Geotextiles in Flexible Pavement", Colloquium in Transportation Systems Engineering and Management, CTSEM 2014, paper ID 239, May 2014.
29. Mohammed Shinas S, Nisha Radhakrisnan, and **Sunitha, V.**, and Samson Mathew. "GIS-GPS Based Pavement Management System" National Symposium for Post Graduate Students NSPGS 2010, April 2010.
30. Mohit Singh Parihar, Jegan Bharath Kumar and **Sunitha, V.**, "Moisture damage prediction of hot mix asphalt using Artificial Neural Network", 6th Conference of the Transportation Research Group of India (CTRG-2021), 2021.
31. Mohit Singh Parihar, **Sunitha, V.** and Jegan Bharath Kumar. A, "Investigation of Moisture Damage of Hot Mix Asphalt using Artificial Neural Network", 7th Conference on Transportation Systems Engineering and Management, CTSEM 2020, PT 67- PT 70, December 2020.
32. Nihil John, and **Sunitha, V.**, "Investigation on the Performance of Warm Mix Asphalt mixture with Reclaimed Asphalt Pavement", International Virtual Conference on "Smart and Sustainable Development of Urban Green Infrastructure in India and Canada" (SSDUGI – 2022), Paper ID: SSDUGI_20, March 2022.
33. P. Gauthaman, **Sunitha, V.**, and Samson Mathew. "Genetic Algorithm Approach for Pavement Maintenance and Rehabilitation", Student Symposium on Research in Civil Engineering, March 2009, pp. 193 – 194.
34. P.Sandhya Rani, and **Sunitha, V.** "Experimental Investigation on the Rheological Properties of the Bitumen", CTSEM-2017, May 2017.
35. Praveen S B, **Sunitha, V.** Samson Mathew and A. Veeraragavan. "Pavement Performance Model for PMGSY Roads in India", 2nd Conference on Transportation Systems Engineering and Management (CTSEM 2015), paper ID 118, May 2015.
36. Praveen, S B, **Sunitha, V.** Samson Mathew and A. Veeraragavan. "Pavement Performance Model for PMGSY Roads in India", 8th International Conference on Maintenance and Rehabilitation of Pavements (MAIREPAV8), July 2016.

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37. Puli Sridhar and **Sunitha, V.** "SExperimental Investigation on the Properties of Modified Bitumen Binders", 2nd Conference on Transportation Systems Engineering and Management (CTSEM 2015), paper ID 133, May 2015.
38. R. Jayasankar, **Sunitha, V.**, S. Abdul Rasheed, and A. Siddique. "A Study on Cost Effectiveness of Stabilized Flyash for Rural Road Construction", ROAD 07, National Conference, Workshop and Exposition on Trends in Road Making Materials, Methods & Machines – for Quality, Economy & Speed, April 2007, 95 – 109.
39. R.T Arjun Siva Rathan, **Sunitha, V.** and Samson Mathew. "Experimental Investigation on the Partial Replacement of Fine Aggregate with Waste Granite Fines in Concrete Paving Block", International Conference on Ingenious Technologies and Sustainable Developments in Civil Engineering, paper ID EM30, October 2014.
40. Rejani V. U., **Sunitha, V.** and Samson Mathew. "Pavement Maintenance Management System for Tiruchirappalli City", International Conference on Maintenance and Rehabilitation of Constructed Infrastructure Facilities (MAIREINFRA - 2017), July 2017.
41. Rejani V. U., **Sunitha, V.** and Samson Mathew. "Urban Pavement Maintenance Management System for Tiruchirappalli City", 3rd Conference on Transportation Systems Engineering and Management (CTSEM 2016), 464-472, October 2016.
42. S. Moses Santhakumar, Samson Mathew, R. Jayasankar and **Sunitha, V.** "Impact of PMGSY on Travel Characteristics of Tamil Nadu Rural Population", National Conference on Rural Roads, May 2007, 349 – 358.
43. S. Moses Santhakumar, Samson Mathew, **Sunitha, V.**, and J Sheeba. "Travel Characteristics of Tamil Nadu Rural Population", National Conference on Earthquake and Transportation Engineering NCETE '07, TE143, March 2007.
44. Sai Rahul Reddy N., and **Sunitha, V.**, "Analyzing the Rutting Resistance of Modified Binders Using MSCR Test ", New and effective Innovations, Technologies and Key challenges 2020" NCCE, 26, January 2020.
45. Sai Rahul Reddy N., and **Sunitha, V.**, "Investigating the Rheological Properties of Waste plastic Modified Binders", International Conference Innovative Trends in Civil Engineering for Sustainable Development, 197 - 198, September 2019.
46. Samson Mathew and **Sunitha, V.** "GUrban Pavement Maintenance Management Systems (UPMMS)" National Conference on Urban Mobility – Challenges, Solutions and Prospects, July 2012.
47. Samson Mathew, A. K. Raji, **Sunitha, V.** and Swathi N. "Rural Road Network Planning - A case study of Karimnagar District in Andhra Pradesh", National conference of Focussing on Advances in Civil Engineering FACE, February 2007, 85-90.
48. Samson Mathew, D. Srividya and **V. Sunitha.** "Selection of Site for Vegetable Market in Tiruchirappalli Using Integrated GIS and User Optimisation", National Conference on Applications of GIS and GPS in Civil Engineering, July 2004, 151-161.

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49. Samson Mathew, D. Srividya, **V. Sunitha** and R. Sundaresan. "User Optimized Vegetable Market Site Selection Using Integrated GIS", National Conference on Advances in Road Transportation (ART – 2005), February 2013, 182 – 188.
50. Samson Mathew, **Sunitha, V.**, G. S. Ramanujam and A.Veeraragavan. "Application of Genetic Algorithm in Pavement Maintenance and Rehabilitation Optimization", Proceedings of International Conference on Transportation Planning and Implementation Methodologies for Developing Countries TPMDC-2008, Paper ID 38, December 2008, 95 – 109.
51. Samson Mathew, **Sunitha, V.**, R. Resmi and Pooja. S. Nair. "Commuters Rating on Bus Transport System in Tiruchirappalli City", National conference of Focussing on Advances in Civil Engineering FACE, February 2007, 175 - 180.
52. Samson Mathew, **V. Sunitha** V. M. Rajanandhini and R. Resmi, "Integrated Transportation System for Tiruchirappalli City", National Conference on GIS, GPS and RS applications in Transportation Planning and Management, November 2006, 76-84.
53. Shilpa Rajan, **Sunitha, V.** and S. Shaheem, "Understanding the Travel Behaviour of Government Employees – A Case Study of Thiruvananthapuram city", 7th Conference on Transportation Systems Engineering and Management, CTSEM 2020, TP 25- TP 28, December 2020.
54. Suneel Singh, Arjun Siva Rathan R.T and **Sunitha, V.**, "Performance assessment of plastic waste modified bitumen mix pavements constructed by dry process", International Virtual Conference on "Smart and Sustainable Development of Urban Green Infrastructure in India and Canada" (SSDUGI – 2022), Paper ID: SSDUGI_75, pp: 122-123, March 2022.
55. **Sunitha, V.** A. Veeraragavan, Karthik K Srinivasan and Samson Mathew. "Deterioration Models for Latent Class Clustered Pavement Sections", National Conference on Roads and Transport (NCORT-2017), October 2017.
56. **Sunitha, V.** Bhanu Prakash K., and Janani L. "Sustainable use of Copper Slag as a Replacement of Fine Aggregate in Sub-base layer", International Conference on Desalination, 163, April 2018.
57. **Sunitha, V.** Sidarth Sahu, and Mohit Negi. "Utilization of Recycled Waste Plastic in Pavement", International Conference on Desalination, 162, April 2018.
58. Susan Francis, **Sunitha, V.** and Samson Mathew, "Bus Passenger Origin Destination Matrix Estimation from Electronic Ticketing Machine Data", 7th Conference on Transportation Systems Engineering and Management, CTSEM 2020, TP 17- TP 20, December 2020.
59. Susan Francis, **Sunitha, V.** and Samson Mathew, "Potential of Electronic Ticketing Machine Data in Public Transport Planning", 6th Conference of the Transportation Research Group of India (CTRG-2021), 2021.
60. Syed Sahir and **Sunitha, V.** "Study on Effect of Coir Geotextie as Reinforcement in Pavement Design", 2nd Conference on Transportation Systems Engineering and Management (CTSEM 2015), paper ID 131, May 2015.
61. Tejas Shrivastava, Arjun Siva Rathan R.T, and **Sunitha, V.**, "Performance assessment of plastic waste modified bitumen pavement constructed by wet process", International Virtual Conference

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on "Smart and Sustainable Development of Urban Green Infrastructure in India and Canada" (SSDUGI – 2022), Paper ID: SSDUGI_72, March 2022, pp: 118-119.

62. Tummala Venkata Ganesh, and **Sunitha, V.**, "Study on the Effect of Geopolymer on Rheological Properties of Crumb Rubber Modified Binders", International Virtual Conference on "Smart and Sustainable Development of Urban Green Infrastructure in India and Canada" (SSDUGI – 2022), Paper ID: SSDUGI_25, March 2022, pp: 56-57.
63. Anjumol M. Sadhu and **Sunitha V.** "Effect of Binder Content on Moisture Susceptibility of Bituminous Mixtures at Different Test Conditions", Virtual Conference on Smart and Sustainable Development of Urban Green Infrastructure in India and Canada (SSDUGI-2022), March 25–26, 2022, 28–29.
64. Tummala Venkata Ganesh and **Sunitha V.** "Study on the Effect of Geopolymer on Rheological Properties of Crumb Rubber Modified Binders", Virtual Conference on Smart and Sustainable Development of Urban Green Infrastructure in India and Canada (SSDUGI-2022), March 25–26, 2022, 56–57.
65. Tejas Shrivastava, Arjun Siva Rathan R. T. and **Sunitha V.** "Performance Assessment of Plastic Waste Modified Bitumen Pavement Constructed by Wet Process", Virtual Conference on Smart and Sustainable Development of Urban Green Infrastructure in India and Canada (SSDUGI-2022), March 25–26, 2022, 118–119.
66. Kawaldeep Singh Bhatia, **V. Sunitha** and R. Chandra Prathap. "Effect of Overloading on Flexible Pavement Performance", Virtual Conference on Smart and Sustainable Development of Urban Green Infrastructure in India and Canada (SSDUGI-2022), March 25–26, 2022, 120–121.
67. Suneel Singh, Arjun Siva Rathan R. T. and **Sunitha V.** "Performance Assessment of Plastic Waste Modified Bitumen Mix Pavements Constructed by Dry Process", Virtual Conference on Smart and Sustainable Development of Urban Green Infrastructure in India and Canada (SSDUGI-2022), March 25–26, 2022, 122–123.
68. Nihil John and **Sunitha V.** "Investigation on the Performance of Warm Mix Asphalt Mixture with Reclaimed Asphalt Pavement", Virtual Conference on Smart and Sustainable Development of Urban Green Infrastructure in India and Canada (SSDUGI-2022), March 25–26, 2022.
69. Ankit Kumar Singh, **V. Sunitha** and Satish Pandey. "Finite Element Analysis of Geocell Reinforced Flexible Pavements", Virtual Conference on Smart and Sustainable Development of Urban Green Infrastructure in India and Canada (SSDUGI-2022), March 25–26, 2022.
70. Manjusha M. and **Sunitha V.** "Accurate Assessment of Pothole Measurement on Pavement Surface Using Data Collected by UAV", 7th Conference of Transportation Research Group of India (CTRG-2023), 17–20 December 2023.
71. Sakthivel S., **Sunitha V.** and Samson Mathew. "Pavement Performance Evaluation to Investigate the Behavior of Coir Reinforced Rural Roads", 7th Conference of Transportation Research Group of India (CTRG-2023), 17–20 December 2023.

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72. Chandra Prathap R., **Sunitha V.**, Samson Mathew and Devika Santosh. "Investigating Overloading on Vehicle Axles and Gross Vehicle Weight: Evidence from Field Data Analysis", 7th Conference of Transportation Research Group of India (CTRG-2023), 17-20 December 2023.
73. Manjusha M., Niveditha R. and **Sunitha V.** "Deploying UAV for Smart Monitoring of Traffic", 15th International Conference of the Eastern Asia Society for Transportation Studies (EASTS 2023), September 4-7, 2023.
74. Rekha K. Nair, G. Sai Srikar Reddy and **Sunitha V.** "An Investigation into the Effect of Geopolymer Modification on the Consistency of Crumbed Rubber Modified Bitumen", 15th International Conference of the Eastern Asia Society for Transportation Studies (EASTS 2023), September 4-7, 2023, 2413-2427.
75. Rekha K. Nair, G. Sai Srikar Reddy and **V. Sunitha.** "Modification of Crumb Rubber Modified Binders Using Fly Ash-Based Geopolymers", International Conference on Innovative Methods and Practical Application for Cognizant Transportation System (IMPACTS 2023), March 20-22, 2023, 163-175.
76. Manjusha M., Rudhra A. and **Sunitha V.** "Pavement Distress Detection Using Image Processing from Unmanned Aerial Vehicle Data", International Conference on Innovative Methods and Practical Application for Cognizant Transportation System (IMPACTS 2023), March 20-22, 2023, 177-191.
77. Nantha Priya Gurusamy, Anusudha Viswanathan, **Sunitha V.** and Samson Mathew. "Performance Analysis of Coir Reinforced Pavement for Rural Roads", International Conference on Innovative Methods and Practical Application for Cognizant Transportation System (IMPACTS 2023), March 20-22, 2023, 202-212.
78. Janani L., **Sunitha V.** and Samson Mathew. "Critical Comparison of Methods to Estimate Pavement Roughness Using Smartphone Sensors", International Conference on Innovative Methods and Practical Application for Cognizant Transportation System (IMPACTS 2023), March 20-22, 2023, 543-556.
79. S. Princy Magdelin Ahila, Rekha K. Nair and **V. Sunitha.** "Enhancing Bitumen Performance through Recycled Plastic and Geopolymer Modification: A Sustainable Approach", 10th International Conference on Transportation System Engineering and Management (CTSEM 2024), July 19-20, 2024, 99-112.
80. P. T. Akshay, B. I. Sonia, Ashly Johnson and **V. Sunitha.** "Pavement Maintenance Optimization in National Highways", 10th International Conference on Transportation System Engineering and Management (CTSEM 2024), July 19-20, 2024, 341-354.
81. Keerthi P., Manjusha M. and **Sunitha V.** "Integration of UAV Technology and Deep Learning for Pavement Distress Detection", 8th Conference of Transportation Research Group (CTRG-2025), 17-20 December 2025.
82. B. I. Sonia, Thananki Ganga Sai Kumar and **V. Sunitha.** "Probabilistic Markov Chain International Roughness Index Prediction Model for National Highways", 8th Conference of Transportation Research Group (CTRG-2025), 17-20 December 2025.

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83. Vedant Mogal, Rekha K. Nair and **Sunitha V.** "Evaluation and Performance Testing of Bio-Binders for Bituminous Binders", 8th Conference of Transportation Research Group (CTRG-2025), 17-20 December 2025.
84. Manjusha M. and **Sunitha V.** "UAV-Assisted Deep Learning for Pothole Detection and Severity Estimation", 11th International Conference on Transportation System Engineering and Management (CTSEM 2025), 4-5 July 2025.
85. Rekha K. Nair, Anindya Bandyopadhyay and **Sunitha V.** "Analysis of Biochar-Modified Bitumen: An Ecofriendly Pavement Material", 11th International Conference on Transportation System Engineering and Management (CTSEM 2025), 4-5 July 2025.
86. Jegan Bharath Kumar A., **Sunitha V.**, Lekshmi J. S. and Samson Mathew. "Performance Assessment of Moisture Damage of Hot Mix Asphalt Using Admixtures", International Conference on Advances in Materials, Modeling, and Analysis for Sustainable and Resilient Infrastructure (2025), January 9-11, 2025, 27-38.