

**Dr. Samson Mathew**  
**Dean (Student Welfare) and Dean (i/c) (Institute Development)**  
**Professor of Civil Engineering**  
**National Institute of Technology, Tiruchirappalli**

**Dr. Samson Mathew** has completed his B.Tech. Degree from University of Kerala, in the year 1985, M.Tech. Degree from University of Calicut in 1988 and Ph.D. from University of Calicut in 1996. He received the young scientist award for the year 1994. He joined National Institute of Technology (formerly Regional Engineering College), Tiruchirappalli in the year 1994 and is currently the **Professor of Civil Engineering**.

Dr. Samson Mathew is currently the **Dean (Students Welfare)**. He also **heads the Centre of Excellence in Transportation Engineering (CETransE)** at NIT Tiruchirappalli. CETransE was established in the year 2013 by the Department of Higher Education, Ministry of Human Resource Development, and Government of India under the scheme 'Establishment of Centers of Excellence in Frontier Areas of Sciences and Technology (FAST)'.

His teaching and research areas include Transportation Planning, Traffic Engineering, Road Safety, Pavement Management and ITS. He has guided 83 Post Graduate thesis works in various fields. Three scholars have completed Ph.D. and currently ten Ph.D. scholars are working under his guidance. He has published 36 papers in International/National journals, 29 papers in International conferences and more than 70 papers in National level conferences.

He has successfully completed **ten projects** sponsored by Ministry of Human Resources Development, Govt. of India, National Rural Road Development Agency, Coir Board etc. The total cost of completed projects is **Rs. 125 lakhs**. Currently he is coordinating **3 sponsored projects** with total grant of **Rs.624 lakhs** with Ministry of Urban Development, Coir Board, and National Highway Authority of India. He is a member of State Technical Agency of Prime Minister Gram Sadak Yojana (PMGSY) programme for Tamil Nadu and Pondicherry. He is also actively involved in Transportation related consultancy works.

He has conducted several training programmes for academicians and professionals in various realms of Transportation Engineering. He is also a life member of the professional organizations such as Indian Roads Congress, Indian Society for Technical Education, Institute of Urban Transport, Institution of Engineers and Transport Group of India. He has delivered expert lectures in many leading institutions in South India. He has also visited Singapore, Netherlands, Hong Kong, Srilanka and Republic of Korea as a part of his academic programmes.

In addition to his academic contributions, he has immense involvement in taking up several administrative responsibilities in the Institute. He has been the Convener of Hostels, Chief Warden and is currently the Chairman of Estate Welfare Committee of NIT Tiruchirappalli. He was the Chief of Works for 3 years and played an instrumental role in developing the infrastructure of the campus. He was the coordinator of Golden Jubilee Celebrations of NIT, Tiruchirappalli which was inaugurated by the honorable President of India, Sri. Pranab Mukherjee on 19<sup>th</sup> July 2014.

## PERSONAL and KEY INFORMATION

1. Name **Dr. SAMSON MATHEW**
2. Designation Professor
3. Office Address Professor, Department of Civil Engineering  
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6. Date of Birth and Age 03.07.1963, 53 years 9 months (as on 01.04.2017)
7. Nationality Indian
8. Gender & Marital Status Male, Married
9. Field of Specialization Civil Engineering/Transportation Engineering

### 10. Academic Qualifications

| Examination                       | Board / University                  | Year | Division/ Grade | Subjects                            |
|-----------------------------------|-------------------------------------|------|-----------------|-------------------------------------|
| Doctor of Philosophy (Ph.D.)      | Calicut University                  | 1996 | -               | Civil Engineering                   |
| Master of Technology (M. Tech.)   | Calicut University                  | 1988 | First Class     | Traffic and Transportation Planning |
| Bachelor of Technology (B. Tech.) | Kerala University                   | 1985 | First Class     | Civil Engineering                   |
| Pre Degree                        | Kerala University                   | 1980 | First Class     | Physics, Chemistry and Mathematics  |
| S.S.L.C.                          | State Board of Examinations, Kerala | 1978 | First Class     | All subjects                        |

## 11. Achievements

### (i) Awards

**Young Scientist Award** holder of the Year 1994 from the State Committee on Science, Technology and Environment, Government of Kerala

### (ii) Fellowships

| Year of Award | Name of the Fellowship | Awarding Organization | From (Month/Year) | To (Month/Year) |
|---------------|------------------------|-----------------------|-------------------|-----------------|
| 1986          | GATE Scholarship       | GOI, at REC Calicut   | July 1986         | December 1987   |

## 12. Employment Profile

| Job Title           | Employer                              | From           | To             |
|---------------------|---------------------------------------|----------------|----------------|
| Professor           | N.I.T Tiruchirappalli                 | September 2010 | Present        |
| Associate Professor | N.I.T Tiruchirappalli                 | September 2006 | September 2010 |
| Assistant Professor | N.I.T Tiruchirappalli                 | September 2003 | September 2006 |
| Senior Lecturer     | N.I.T Tiruchirappalli                 | September 1998 | September 2003 |
| Lecturer            | R.E.C., Tiruchirappalli               | September 1994 | September 1998 |
| Research Scholar    | R.E.C., Calicut                       | June 1989      | June 1994      |
| Lecturer            | Anjuman Engineering College, Bhatakal | November 1988  | May 1989       |
| Engineer            | Kakkad Hydro Electric Project, KSEB   | June 1985      | May 1986       |

## 13. Administrative & Leadership Roles

| Position  | Institution         | From       | To         |
|---|---------------------|------------|------------|
| Dean (Students Welfare)   |                     |            |            |
| Head, Department of Civil Engineering                               | NIT Tiruchirappalli | 15.02.2017 | Present    |
| Head, Centre of Excellence in Transportation Engineering (CETransE) | NIT Tiruchirappalli | 20.09.2016 | Present    |
| Chief Warden  | NIT Tiruchirappalli | 11.09.2015 | 12.11.2015 |
| Chief of Works  | NIT Tiruchirappalli | 09.11.2012 | 10.09.2015 |
| Convener of Hostels   | NIT Tiruchirappalli | 01.11.2010 | 09.11.2012 |
| Associate Dean(Planning &Development)                               | NIT Tiruchirappalli | 23.07.2009 | 15.09.2010 |
| Convener, Estate Works and Maintenance Committee, Institute Zone    | NIT Tiruchirappalli | 05.05.2008 | 22.07.2009 |

|   |                         |            |            |
|---|-------------------------|------------|------------|
| Convener, Quality Assurance Committee, Institute Zone | NIT Tiruchirappalli     | 14.03.2007 | 04.05.2008 |
| Warden of SAPPHIRE Hostel, R.E.C., Tiruchirappalli    | R.E.C., Tiruchirappalli | 03.07.1996 | 22.09.1999 |
| Staff Advisor, Civil Engineering Association          | R.E.C., Tiruchirappalli | 1998       | 2000       |
| Staff Advisor, Youth Red Cross                        | R.E.C., Tiruchirappalli | 1997       | 1998       |

## 14. Curriculum Innovations and Mentorship

### (i) Curriculum Development

1. Traffic Engineering and Highway Geometrics Design
2. Transportation Planning
3. Transportation Systems
4. Urban Transportation Systems
5. Geographical Information Systems
6. Remote Sensing and Applications
7. Intelligent Transportation Systems
8. Road Transport Management and Economics
9. Traffic Engineering and Safety
10. Highway Materials
11. Highway and Pavement Engineering
12. Railway, Airport and Harbour Engineering
13. Traffic and Transportation Engineering Lab
14. Highway Engineering Lab

### (ii) Courses taught at Postgraduate and Undergraduate levels

#### Post Graduate Level

1. Transportation Systems
2. Transportation Planning
3. Intelligent Transportation Systems
4. Road Transport Management and Economics
5. Traffic and Highway Engineering Laboratory

#### Undergraduate Level

1. Highway and Pavement Engineering
2. Transportation Planning
3. Traffic and Safety Engineering

### (iii) Thesis guided at Postgraduate level

1. Transportation Development Plan for Kakinada City
2. Performance Analysis of City Buses Through User Perception - A Case Study of Tiruchirappalli
3. A Study of Traffic Noise in Tiruchirappalli City
4. Remote Sensing as a Tool for Land Use Change Detection and Transportation Planning - A Case Study of Trichy

5. An Improved Plan and Design for Chatram Bus Stand
6. Integrated GIS as a Tool for Land Use Planning
7. Safe Highways through Accident Prevention and Helping Centres – an Innovative Approach
8. Evaluation of Tiruchirappalli Urban Road Network using Integrated GIS
9. Estimation of Trip Ends – A Novel Application of Artificial Neural Network in Transportation Planning
10. A Simplified Method for Flexible Pavement Overlay Design
11. Gauge Conversion in Trichy Railway Division – An impact Assessment Study
12. Travel Characteristics of Rural Population – A Case study of Tamilnadu
13. Evaluation of Employee Satisfaction Level in Road Transport Industry – A Case Study of TNSTC, Tiruchirappalli
14. A Study on Shoulder Width and its Effect on Speed and Carriageway Effective Width.
15. Road Safety Audit Using Accident Probability Index (API)
16. PDMS – A Flexible Pavement Design and Monitoring System
17. Impact of Narrow Bridges and Culverts on Traffic - A Case Study in NH – 67
18. Model Integration for Hyderabad Area Rapid Transport System
19. Ridership Estimation and Economic Analysis For Sky bus Metro
20. Travel and Mode choice Behaviour of Trip makers – A Comparative study of Tamil Nadu and Kerala
21. Quantification of Accessibility Levels – A case study of Tiruchirappalli
22. TRADES – A GIS Model for Travel Demand Estimation Using Link Volume Philosophy
23. Stabilization of Problematic Soil
24. Road Design Using Highway Design System Software
25. Vehicle Tracking using GPS – A Case Study of Two Wheeler Tracking in NIT Tiruchirappalli Campus
26. Selection of Site for Vegetable Market in Tiruchirappalli Using Integrated GIS and User Optimisation
27. Flexible Pavement Evaluation and Design of Overlay
28. Identification of Artificial Recharge Zones Using Integrated GIS
29. An Approach for Optimal Rural Road Network Planning Using Cluster Analysis – A Case Study of Pudhukottai District of Tamil Nadu
30. Integration of GIS and GPS in Travel Time Behaviour Studies
31. Potentiality of Coir Geotextile for Road Construction in Weak Soil
32. A Study on the Engineering and Chemical Properties of Seashore Soil and its Improvement
33. Effect of Road Widening and Impact of Industrial Area on Traffic – A Case Study of Stretch Between Thiruverumbur and Thuvakudi on NH 67
34. Study on the Effect of Fibre Reinforcement in Concrete Pavements
35. Environmental Impact Assessment of Proposed Mahe – Valapattanam Navigation Canal
36. Identification of Seasonal Water Quality Changes and Its Effects on the Environmental Using Remote Sensing and GIS
37. Preparation of an Operation Plan for Sidhamalli Reservoir
38. Soil Erosion Predictive Model for Ponnaniar Reservoir Catchment Area Using Integrated GIS
39. Dam Break Analysis for Ponnaniar Dam using Mike 11
40. Integrated Transportation System for Tiruchirappalli City
41. Studies on Fiber Reinforced Silica Fume Concrete for Pavement Overlays
42. Study on Overlay Characteristics on Long-Term Performance of Pavements
43. Rural Connectivity Based on Ranking of Villages – A Case Study of Mandya District of Karnataka

44. Traveller Information System for Public Transport Buses in Tiruchirappalli City Using GPS
45. A study of Travel Characteristics on NH 45 and NH 67
46. Quantification of Urban Accessibility Level using Integrated GIS and Centrality Score
47. Study of Highway Geometric using GPS
48. Studies on Fatigue Behaviour of Bituminous Mixes
49. Rural Road Pavement Performance Study
50. Finite Element Analysis of cement Concrete Pavements
51. Urban Accessibility Evaluation – A Case Study on Ponmalai Zone
52. A Genetic Algorithm for Pavement Maintenance and Rehabilitation Optimization
53. Travel Behavior and Traffic Studies using GPS Fixed Probe Vehicles
54. Estimation of Origin – Destination Matrix from Link Volume Counts using BI- Level Programming
55. Micro Simulation of Activity – Travel Pattern for Tiruchirappalli City
56. Influence of Flaky and Elongated Aggregates on Bituminous Mix Design
57. Evaluation of Performance Enhancers in Subgrade and Subbase Layers of Flexible Pavements
58. Analysis of Temperature Stresses in Cement Concrete Pavements
59. Urban Speed Management for Tiruchirappalli City Using Speed Cameras
60. Facility Based Regional Road Network Planning – A Case Study in Tiruchirappalli Region
61. A Micro Simulation Activity Based Travel Model for Tiruchirappalli City
62. Studies on Effect of Fine Content on Bituminous Concrete Mixes
63. Urban Speed Management for Tiruchirappalli City Using ITS Technology
64. Facilities for Pedestrians and Physically Challenged
65. Impact of PMGSY Roads on Socio Economic and Travel Characteristics of Rural Population
66. Estimation of Origin-Destination Matrix from Link Volumes using Artificial Neural Network.
67. Evaluation of Operational Efficiency of Urban Road Network using Travel Time Reliability Measures
68. Study on Effect of Fine Content on Semi-Dense Bituminous Concrete
69. Impact Assessment of PMGSY Roads – Comparative Study of Palakkad and Tiruchirappalli
70. Public Transport Demand Analysis – A Case Study of Tiruchirappalli City
71. Dynamic Travel Time Estimation of a Highway Using Macroscopic Model for Heterogeneous Traffic
72. Mode Choice Analysis of Trip Makers in Tiruchirappalli City
73. Sufficiency and Deficiency of Pedestrian Facilities in Selected Cities of Kerala
74. Simulation Study of the Impact of Curb-side bus stops and bus bays on traffic
75. Evaluation of Accessibility and Mobility Levels of the Transportation Network in Tiruchirappalli City
76. A Study on Travel Behaviour of Intercity Trip Makers in Kerala
77. Urban Freight Transport Modelling
78. Risk Management in Railway Projects
79. Accessibility and Mobility Assessment of Transportation Network in Tiruchirappalli Corporation
80. Effects of Bottom Ash Addition on Properties of Subgrade and Base Course in Flexible Pavements
81. Techno Economic Feasibility Study of Feeder Canal- Kerala (A Case Study of Ac Canal)
82. Site Selection for Wholesale Market Using GIS & Analytical Hierarchy Process
83. Bus Rapid Transit System for Tiruchirappalli City

## 15. Ph.D. Supervision

### Completed:

| <b>Name of the Ph.D. Scholar</b> | <b>Title of Ph.D. Thesis</b>  | <b>Role(Supervisor/ Co-Supervisor)</b> | <b>Year of Award</b> |
|----------------------------------|---|--|----------------------|
| Mrs. G. Niranjana                | Study on the Effect of Fibre Reinforcement in Rigid Pavements                   | Supervisor                             | 2012                 |
| Mrs. P. Selvi                    | Study on Engineering Properties of Sub-grade Soil in Coastal Zones of Tamilnadu | Supervisor                             | 2013                 |
| Mrs. V. Sunitha                  | Decision Support System for Maintenance Management of Low Volume Rural Roads    | Co-Supervisor                          | 2013                 |

### On-Going:

| <b>Name of the Ph.D. Scholar</b> | <b>Title of Ph.D. Thesis</b>   | <b>Role (Supervisor/ Co-Supervisor)</b> | <b>Year of Registration</b> |
|----------------------------------|--|---|-----------------------------|
| Mrs. G. Nantha Priya             | Age Friendly Transportation and Land use Modelling   | Supervisor                              | 2013                        |
| Mr. Chetan R. Bhole              | Studies on Performance of Pavements Strengthened using Natural Fibers                                    | Co-Supervisor                           | 2013                        |
| Mrs. Rejani V. U.                | Decision Support System for Urban Road Maintenance Management  | Supervisor                              | 2014                        |
| Mrs. Archana S.                  | Understanding pedestrian behavior for developing warrants and design standards of pedestrian facilities. | Supervisor                              | 2014                        |
| Mrs. Manipriya S.                | Analysis and Application of Novel Methods to address real time vehicular traffic.                        | Co-Supervisor                           | 2014                        |
| Mrs. D. Latha                    | Rheological properties of asphalt binders at mixing and compaction temperature.                          | Co-Supervisor                           | 2015                        |
| Mr. S. Shaheem                   | Integrated approach for increasing public transport share in medium sized cities                         | Supervisor                              | 2015                        |
| Ms. R Shanmathi Rekha            | Accessibility Analysis for Health care facilities using Geospatial Techniques                            | Co-Supervisor                           | 2015                        |
| Ms. Cynthia Baby Daniel          | Evaluation of Accessibility for Public Transportation Systems in a Medium Sized City                     | Co-Supervisor                           | 2016                        |
| Ms. Janani L.                    | Pavement Condition Assessment using Image Processing   | Co-Supervisor                           | 2017                        |



## 16. Details of Major R&D Projects

| Title of Project   | Funding Agency                                    | Amount (Rs.) | Duration   |            | Status             |
|--|---|--------------|------------|------------|--------------------|
|  |   |              | From       | To         | Ongoing/ Completed |
| Development of a Remote Sensing Image Interpretation Cell for Rural and Urban Planning                     | MHRD, Government of India                         | 10 lakhs     | 1998       | 2000       | Completed          |
| Modernisation of Transportation Engineering Laboratory through Plan Fund                                   | MHRD, Government of India                         | 30 lakhs     | 1999       | 2000       | Completed          |
| Household Survey to Assess Rural Transport Infrastructure, Tamilnadu State                                 | IIM, Bangalore                                    | 30,000       | 2001       | 2001       | Completed          |
| Remote Sensing Application in Interpretation and Monitoring of Ambient Air Quality                         | MHRD, Government of India                         | 8 lakhs      | 2002       | 2004       | Completed          |
| GIS-GPS Based Monitoring of Public Transport Vehicles  | MHRD, Government of India                         | 12 lakhs     | 2003       | 2005       | Completed          |
| Rural Road Traffic Volume Study in Tamilnadu   | NRRDA, Government of India                        | 10 lakhs     | 03.04.2006 | 02.04.2007 | Completed          |
| Rural Road Pavement Performance Study(RRPPS)   | NRRDA, Government of India                        | 10 lakhs     | 01.06.2006 | 31.06.2010 | Completed          |
| Coir Geotextiles Reinforced Low Volume Rural Road Pavement Performance Studies in Tamilnadu and Puducherry | Coir Board, Ministry of MSME, Government of India | 12.5 lakhs   | 08.04.2008 | 08.04.2012 | Completed          |
| Preparation of State of the Art Report on Facilities for Pedestrians/Physically                            | Ministry of Road Transport and                    | 3.60 lakhs   | 01.12.2011 | 30.05.2012 | Completed          |



|  |  |              |            |            |           |
|--|--|--------------|------------|------------|-----------|
| Challenged Persons/Passengers  | Highways, Government of India                                |              |            |            |           |
| Preparation of State of the Art Report on Road Safety with Emphasis on Non-Motorised Traffic | Ministry of Road Transport and Highways, Government of India | 3.60 lakhs   | 01.12.2011 | 30.05.2012 | Completed |
| Pavement Evaluation Studies on the Performance Enhancer RBI Grade 81                         | M/S. Legend Surface Developers Pvt. Ltd                      | 4 lakhs      | 23.06.2009 |            | On-going  |
| Urban Pavement Maintenance Management Systems (UPMMS)  | Ministry of Urban Development and IIT, Madras, Chennai       | 10 lakhs     | 29.11.2010 | 29.11.2012 | Completed |
| Urban Speed Management using ITS   | Ministry of Urban Development and IIT, Madras                | 15 lakhs     | 29.11.2010 | 29.11.2012 | Completed |
| Pavement Performance Studies on Coir Geotextiles Reinforced Rural Roads in Tamilnadu         | Coir Board, Ministry of MSME, Government of India.           | 419.87 lakhs | 01.04.2011 | 31.03.2017 | On-going  |
| Centre of Excellence in Transportation Engineering   | MHRD, Government of India                                    | 200 lakhs    | May 2013   | May 2017   | On-going  |

## 17. PUBLICATIONS

### a) International Journals

1. N. Venkat Kumar, **Samson Mathew** and G. Swaminathan, **A Preliminary Investigation for Groundwater Quality and Health Effects – A Case Study**, Asian Journal of Water, Environment and Pollution, Vol. 5, No. 4, pp. 99-107, July 2007

2. T. Chandramohan, A. N. Balchand and **Samson Mathew**, **Discharge and Sediment Transport in the Tropical Rivers of Kerala, India and their Controlling Factors**, Asian Journal of Water, Environment and Pollution, Vol. 6, No. 4, pp. 1-9, June 2008
3. N. Venkat Kumar, **Samson Mathew** and G. Swaminathan, **Fuzzy Information Processing for Assessment of Groundwater Quality**, International Journal of Soft Computing, ISSN: 1816-9503, Vol. 4, No. 1, pp. 1- 9, 2009
4. Natarajan Venkat Kumar, **Samson Mathew**, Ganapathiram Swaminathan, **Analysis of Groundwater for Potability from Tiruchirappalli City Using Backpropagation ANN Model and GIS**, Journal of Environmental Protection, Vol. 1, pp. 136-142, April 2010
5. Natarajan Venkat Kumar, **Samson Mathew**, Ganapathiram Swaminathan, **A Hybrid Approach towards the Assessment of Groundwater Quality for Potability : A Fuzzy Logic and GIS Based Case Study of Tiruchirappalli City, India**, Journal of Geographic Information System, 2, pp. 152-162, April 2010
6. Natarajan Venkat Kumar, **Samson Mathew**, Ganapathiram Swaminathan, **Multifactorial Fuzzy Approach for Assessment of Groundwater Quality**, Journal of Water Resource and Protection, Vol. 2, pp. 597-608, May 2010
7. G. Niranjana, **Samson Mathew** and P. Jayabalan, **Structural Strength Enhancement of Rigid Pavement Using Natural Fibre Reinforcement**, International Journal of Applied Engineering Research, ISSN 0973 - 4562, Vol. 5, No. 11, pp. 2021 - 2030, 2010
8. Natarajan Venkat Kumar, **Samson Mathew** and G. Swaminathan, **A New Hybrid Method for Assessment of Subsurface Water for Potability-A Case Study of Tiruchirappalli City, S. India**, Singapore Journal of Scientific Research, ISSN 2010-006x, pp. 1 - 10, 2010
9. **M. Samson**, G. Swaminathan, N. Venkat Kumar, **Assessing Groundwater Quality for Potability using a Fuzzy Logic and GIS – A Case Study of Tiruchirappalli City – India**, Computer Modelling and New Technologies, Vol. 14, No. 2, pp. 58-68, 2010
10. P. Selvi, **Samson Mathew** and V. S. Velmurugan, **A Study on Effect of Rice Husk Ash and Cement on the Engineering Properties of Nagapattinam Subgrade Soils, India**, International Journal of Engineering Research and Technology, ISSN 0974-3154 Volume 3, No. 3, pp. 829-845, 2010
11. P. Selvi, **Samson Mathew** and K. B. Velliangiri, **Kenlayer Analysis of Stress Distribution of Fly Ash and Cement Stabilized Low Volume Roads**, International Journal of Engineering Research and Technology, ISSN 0974-3154 Volume 3, No. 3, pp. 847-861, (2010)
12. Sathees Kumar, Nisha Radhakrishnan, **Samson Mathew**, **Land Use Land Cover Change Detection and Forecasting for Tiruchirappalli City Using Remote Sensing and GIS**, Journal of Remote Sensing & GIS, Volume 3, Issue 1, pp 21-32, 2012, April 2012
13. Sathees Kumar, D.Thirumalaivasan, Nisha Radhakrishnan, **Samson Mathew**, **Groundwater Vulnerability Assessment Using SINTACS Model**, Geomatics, Natural Hazards and Risk pp.1-16. (SCIE) (DOI:10.1080/19475705.2012.732119), 2012
14. Vidya, R., S. Moses Santhakumar and **Samson Mathew**, **Simulation Study of Construction Work Zones - A Case Study**, Recent Trends in Civil Engineering & Technology, STM Publications, 2(2), 2012
15. Vidya, R., S. Moses Santhakumar and **Samson Mathew**, **Impact of Work Zones on Speed Variation During Widening of the Highway - A Case Study**, International Journal of Engineering Science and Technology, 4(2), 546-554, 2012
16. V. Sunitha, A. Veeraragavan, Karthik K. Srinivasan, and **Samson Mathew**, **Cluster-Based Pavement Deterioration Models for Low-Volume Rural Roads**, ISRN Civil Engineering, ISSN 2090-5106, Vol. 2012, Article ID 565948, 2012
17. Sathees Kumar, Nisha Radhakrishnan, **Samson Mathew**, **Land Use Change Modeling Using a Markov Model and Remote Sensing**, Geomatics, Natural Hazard and Risk, pp.1-16. (SCIE) , 2013 (DOI:10.1080/19475705.2013.795502)
18. V. Sunitha, A. Veeraragavan, Karthik K. Srinivasan, and **Samson Mathew**, **Application of Factor Analysis in Maintenance Management of Low Volume Roads**, International Journal of Pavement Research and Technology, ISSN 1997-1400, Vol.6 No.2, pp. 130-135, Mar. 2013,

19. Remya K. P., **Samson Mathew**, **OD Matrix Estimation from Link Counts Using Artificial Neutral Network**, International Journal of Scientific & Engineering Research, ISSN 2229-5518 Volume 4, Issue 5, pp. 293-296, May 2013
20. Vidya, R., Dr. S. Moses Santhakumar and **Samson Mathew**, **Estimation of IRI from PCI in Construction Work Zones**, ACEE Int. J. on Civil and Environmental Engineering, ISSN 2162-0180, Vol. 2, No. 1, Aug 2013
21. S. Manipriya, C. Mala and **Samson Mathew**, **Performance Analysis of Spatial Colour Information for Object Detection Using Background Subtraction**, SciVerse Science Direct, Elsevier IERI Procedia 00 (2012), 2014
22. R.T Arjun Siva Rathan, V. Sunitha and **Samson Mathew**, **Experimental Investigation on Partial Replacement of fine Aggregate with Waste Granite Fines in Concrete Paving Block**, International Journal of Earth Sciences and Engineering, ISSN 0974-5904, Volume 7, No. 5, pp. 1099-1104, October 2014
23. G. Nanthapriya, **Samson Mathew**, G. Subbaiyan, **Mode Choice Analysis of Senior Citizens- A case Study of Tiruchirappalli City**, International Journal of Earth Sciences and Engineering, ISSN 0974-5904, Volume 7, No. 5, pp 1162-1168, October 2014
24. Sathees Kumar, Nisha Radhakrishnan, **Samson Mathew**, **Application of Geospatial Techniques to Land Suitability Analysis**, International Journal of Sustainable Building Technology and Urban Development, Jan 2015
25. D. Latha, V. Sunitha, **Samson Mathew**, **Experimental Investigation to find Transition Temperature of VG-30 Binder**, International Journal of Civil, Environmental, Structural, Construction and Architectural Engineering, Vol. 9, No 12, 2015

#### **b) International Conferences**

1. Nagaraj B. N., **Samson Mathew** and Chakravarthy G., **Development of a Procedure for Selection of Appropriate Links in the Estimation of Origin - Destination Matrix Using Link Volume Counts**, International Conference on Signals, Data, Systems organized by AMSE, France held at Calcutta, Vol.2, pp. 191-202, 7-9, December 1992
2. B. N. Nagaraj and **Samson Mathew**, **Multi-Objective Goal Programming Strategy for the Estimation of O-D Matrix Through Link Volume Counts**, International Symposium on Infrastructure of the Future, Organized by Association of Consulting Civil Engineers, India, pp. 61-67, 1996
3. T. Nagaraju and **Samson Mathew**, **Urban Road Network Evaluation through Integrated Geographical Information System (IGIS)**, International Seminar on Sustainable Development in Road Transport, IRC, New Delhi, November 2001
4. Nandury S Kameshwara Rao and **Samson Mathew**, **Safe Highways Through Accident Prevention and Helping Centres – An Innovative Approach**, International Seminar on Sustainable Development in Road Transport, IRC, New Delhi, November 2001
5. **Samson Mathew** and G. Swaminathan, **Integrated GIS for Sustainable Development**, International Conference on Sustainable Development and Management of Natural Resources, Holy Cross College, Tiruchirappalli, 15-17 March 2003
6. G. Niranjana, **Samson Mathew** and P. Jayabalan, **Fiber Reinforcement Concrete for Seismic Strength Enhancement of Rigid Pavements**, International Conference on Earthquake Engineering, SASTRA Deemed University, 25–26, pp.362-370, February 2006
7. Suresh Kumar, R. Jayasankar and **Samson Mathew**, **Effect of Silica Fume on Properties of Standard Pavement Quality Concrete**, The Tenth East Asia-Pacific Conference on Structural Engineering and Construction, Bangkok, Thailand, 3-5, August 2006
8. K. Palanichamy, **Samson Mathew** and C. Jenifa Latha, **Dam Break Analysis for Ponnaniar Dam using Mike 11**, 15<sup>th</sup> Congress of Asia Pacific Division of the International Association for Hydraulic Research & International Symposium on Maritime Hydraulics, Department of Ocean Engineering, IIT Madras, Chennai, India, pp. 1-8, August. 7–10, 2006

9. **Samson Mathew**, Roshy M John and T. Balasubramanian, **Reducing Road Accidents through Adaptive Headlight Dimming**, Proceedings of TIMA 2007, , NIT, Tiruchirappalli, pp. 357 – 361, 4-7 January 2007
10. V. Sunitha, G. S. Ramanujam, **Samson Mathew** 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, organized by Indian Institute of Technology Bombay, Paper ID 38, 3-6 December, 2008
11. Sathees Kumar, Nisha Radhakrishnan and **Samson Mathew**, **Land Use Change Analysis in Tiruchirappalli City Using Remote Sensing and GIS**, Geospatial World Forum, Hyderabad India, 18-21 January 2011.
12. Basil Basheerudeen, **Samson Mathew**, Moses Santhakumar and Nisha Radhakrishnan, **Urban Speed Management – A case Study of Tiruchirappalli City**, Urban Mobility, New Delhi, December 3 -6, 2011
13. Satish Kumar Eerni, Nisha Radhakrishnan and **Samson Mathew**, **Forecasting of Urban Sprawl and Traffic Conditions in Tiruchirappalli City**, Urban Mobility, New Delhi, December 3 -6, 2011
14. R. Vidya, S. Moses Santhakumar and **Samson Mathew**, **Estimation of IRI from PCI in Construction Work Zone**, Second International Conference on Advances in Engineering and Technology, Noida, Delhi, December 20-21, 2011
15. Aswathy R., Sathees Kumar, Nisha Radhakrishnan and **Samson Mathew**, **Analysing the Relation Between Land Use and Travel Demand using 3S Technology**, Geomatrix '12, International Conference on Geospatial Technologies and Applications, Mumbai, 26-29 February, 2012
16. S. Moses Santhakumar and **Samson Mathew**, **Development of GIS Based Framework to Plan and Monitor PMGSY Roads**, Geomatrix '12, International Conference on Geospatial Technologies and Applications, Mumbai, 26-29 February, 2012
17. Subha Nair, Sathees Kumar, Nisha Radhakrishnan and **Samson Mathew**, **Origin Destination Matrix Using Bi-level Programming**, India Geospatial Forum, Hyderabad International Convention Centre, Hyderabad, 22-14, January 2013
18. Arif Ashraf, Nisha Radhakrishnan, **Samson Mathew** and Moses Santhakumar, **Speed Detection and Management – ITS Application**, India Geospatial Forum, Hyderabad International Convention Centre, Hyderabad, 22-14, January 2013
19. Nisha Radhakrishnan, K. R. Vinodhkumar, Sathees Kumar and **Samson Mathew**, **Impact Assessment of Built Environment on Pedestrian Accidents**, Geospatial World Forum, Beurs-World Trade Centre, Rotterdam, Netherlands, 13 – 16, May 2013.
20. S. Manipriya, C.Mala, **Samson Mathew**, **Performance Analysis of Spatial Color Information for Object Detection Using Background Subtraction**, Elsevier IERI Procedia 10, 63-69, 2014
21. S. Manipriya, C. Mala and **Samson Mathew**, **Genetic Algorithm Based Efficient RSU Distribution to Estimate Travel Time for Vehicular Users**, International conference on **Soft Computing and Machine Intelligence (ISCFMI 2015)** at Hong Kong, China on 23<sup>rd</sup> and 24<sup>th</sup> November 2015
22. Chetan R Bhole, V. Sunitha 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) during 11<sup>th</sup> - 14<sup>th</sup> December 2015
23. S. Manipriya, C.Mala, **Samson Mathew**, **Real Time Multilevel Parallel Video Image Processing for VANET Infrastructure**, 5<sup>th</sup> International Conference in Computing, Communication and Sensor Network, CCSN 2016, ISBN: 81-85824-46-0, 161-166
24. Nisha Radhakrishnan, K. R. Vinodhkumarm, **Samson Mathew**, **Study of Impact of Built Environment on Pedestrian Accidents using GIUS and Statistical Model**, 4<sup>th</sup> Annual International Conference on Architecture and Civil Engineering, (ACE) 2016

25. G. Nanthapriya, G. Subbaiyan, **Samson Mathew** , **An Investigation on Mode choice and trip length of senior citizens**, 4<sup>th</sup> Annual International Conference on Architecture and Civil Engineering, (ACE) 2016
26. Praveen S B, Sunitha V, **Samson Mathew**, Veeraraghavan A, **Pavement Performance Model for PMGSY Roads in India**, Eighth International Conference on Maintenance and Rehabilitation of Pavements, 2016
27. Karthik K R, Rejani V U, Sunitha V, **Samson Mathew**, **Urban Pavement Maintenance Management System for Tiruchirappalli City**, Eighth International Conference on Maintenance and Rehabilitation of Pavements, 2016
28. Chetan R Bhole, V. Sunitha , **Samson Mathew**, S Moses Santhakumar, **Field Implementaion and Performance of Coir Geotextiles Reinforced Roads**, Eighth International Conference on Maintenance and Rehabilitation of Pavements, 2016
29. S. Manipriya, C.Mala, **Samson Mathew**, **Congestion Rate Estimation for VANET Infrastructure using Fuzzy Logic**, International Conference on Intelligent Systems, Metaheuristics & Swarm Intelligence, Hong Kong, ACM Digital Library, March 25-27, 2017

c) National Journals

1. Nagaraj B. N. and **Samson Mathew**, **Formulation of Travel Demand Estimation Problem in a Goal Programming Framework**, Journal of Transport Management, ISSN 0970-4736, Vol. 18, No.3, pp. 165-169, March 1994
2. **Samson Mathew** and Bh. Annapurna, **Integrated GIS as a Tool for Urban Transportation Planning**, Urban Transport Journal, Vol 2, No.1, pp. 62-73, March 2001
3. T. Chandramohan, A. N. Balchand and **Samson Mathew**, **Field Verification of Runoff Curve Number Estimated From Rainfall – Runoff Data**, Hydrology Journal, Vol. 28(1 – 2), pp. 71 – 78, March – June 2005
4. **Samson Mathew**, A. K. Raji, S. Malagi and V. Sunitha, **Rural Connectivity based on ranking of villages – a Case study of Mandhya District of Karnataka**, Journal of The Institute of Engineers (India), ISSN 0020-336 X, Vol. 88, pp. 34-42, November 2007
5. G. Niranjana, **Samson Mathew** and P. Jayabalan, **Structural Strength Enhancement of Rigid Pavement using Scrap Steel Fibre Reinforcement**, New Building Materials & Construction World. ISSN 0973-0591, Vol. 13, Issue-11, pp. 206-215, May 2008
6. Chandramohan T, **Samson Mathew** and Balchand A N, **Development and Application of Unit Sediment Graph (USG) for Sediment Yield Modeling**, The Icfai University Journal of Soil and Water Sciences, Vol. 1, No. 1, pp. 77-88, August 2008
7. **Samson Mathew**, P. Selvi and K. B. Vellyangiri, **A study on Engineering Properties of Cement Stabilised Seashore Soils**, New Building Materials & Construction World. ISSN 0973-0591, Vol.14, Issue-7, pp. 156-167, January 2009
8. A. K. Raji, **Samson Mathew** and P. Subha, **Rural Connectivity Design Through Transportation Related Hierarchy of Habitations**, Journal of Indian Highways, ISSN 0376-7256, pp. 29-38, September 2010
9. C Parathasarathy, Karthik Kumaresan, Chitralkha Sumbui, Sathees Kumar, Nisha Radhakrishnan and **Samson Mathew**, **Land Use and Land Cover Assessment along Tiruchirappalli City Using Remote Sensing**, The IUP Journal of Earth Sciences, ISSN 0973-8525, Vol. 5, No. 1, pp. 1 - 9, January 2011
10. Subha Nair, Nisha Radhakrishnan and **Samson Mathew**, **Trip Matrix Estimation From Traffic Counts Using Cube**, IC-RICE 2013 – PDACEG – Karnataka - India: International Conference on Recent Innovations in Civil Engineering, Gulbarga, Karnataka October 25 -27, 2013
11. Sathya Prabha R. and **Samson Mathew**, **Evaluation of Operational Efficiency of Urban Road Network using Travel Time Reliability Measures**, PDACEG – Karnataka - India: International Conference on Recent Innovations in Civil Engineering, Gulbarga, Karnataka October 25 -27, 2013



#### d) National Conferences

1. Nagaraj B. N., Usha K., P.S Mony, **Samson Mathew, A Model of Dynamic Urban Structure Specification for Estimation of Temporal Travel Demand**, National System Conference on Transportation Studies (NACOTS-90) at I.I.T., Delhi, pp. 1-8, 1990
2. Nagaraj B. N., **Samson Mathew, Estimation of Origin - Destination Matrices from Link Volume Counts**, National Seminar on Urban Transportation, Indian National Academy of Engineering, New Delhi, pp. II-11-22, 12-13 February 1993
3. Nagaraj B. N., **Samson Mathew, Manju V. S., Estimation of Origin – Destination Matrices Using Link Volume Counts by Multi - Objective Goal Programming Strategy**, Third National Conference on Transportation Systems Studies Analysis and Policy (NCOTSS - 93), Andhra University, Visakhapatnam, pp. 1 - 10-30, 11-12 December 1993
4. **Samson Mathew and Nagaraj B N, Some New Experiments in the Estimation of Travel Demand Using Link Volume Counts**, VI Kerala Science Congress, State Committee on Science, Technology & Environment, Kerala, Thiruvananthapuram, pp. 396-389, 27-29 January 1994
5. T. S. Ambili, **Samson Mathew and T. S. Venkataraman, Correlation Between CBR and Clegg Impact Value**, National Seminar on Emerging Trends in Highway Engineering, Centre for Transportation Engineering, Bangalore University, pp. P25.1-25.5, 10-11 March 1995
6. M. Suresh, **Samson Mathew and K. A. Kuppusamy, A Study of the Correlation Between Rotation of Earth Around Sun and the Sleeping Time of Vastupurusha**, Second National Convention on Vastuvidya, Vastuvidya'96, 15-16 December 1996
7. **Samson Mathew and C. V. Phani Kumar, “Transport Development Plan for Kakinada City”**, National Seminar on Trends and Techniques in Transportation, Centre for Transportation Engineering, R.E.C., Warangal, India, pp. II 87-91, 1997
8. **Samson Mathew and BH. Annapurna, Integrated GIS as a Tool for Urban Land use Monitoring and Planning**, National Conference on Geoinformatics, PSG College of Technology, Coimbatore, 17-18 November 2000
9. **Samson Mathew and Jaikokila, Safety Auditing using Accident Possibility Index**, National seminar on Road Accidents Causes and Preventive Measures, Institute of Road and Transport Technology, Erode, pp. 32–41, 19-21 December 2001
10. **Samson Mathew and N. S. Kameswara Rao, Safe Highways through Accident Prevention and Helping Centres – An Innovative Approach**, National seminar on Road Accidents - Causes and Preventive Measures, Institute of Road and Transport Technology, Erode, pp. 51-60, 19-21 December 2001
11. **Samson Mathew, Safe Highways Through Accident Prevention and Helping Centres – An Innovative Approach**, Presented at 62<sup>nd</sup> Annual Session of the Indian Roads Congress held at Cochin from 8<sup>th</sup> to 11<sup>th</sup> January 2002
12. T. Nagaraju and **Samson Mathew, Urban Road Network Evaluation Through Integrated Geographical Information System (IGIS)**, National Conference on Geographic Information Systems & their application in Civil Engineering Deccan College of Engineering and Technology, Dar us Salam, Hyderabad during 14 – 16 February 2002
13. **Samson Mathew, Mahesh L. Yeotkar, Sky Bus Metro – An Eco Friendly Solution for Urban Transport Problems**, National Seminar on Urban Environmental Management (NSUEM – 2003), Periyar Maniammai College of Technology for Women, Thanjavur, 10-11 February 2003
14. **Samson Mathew and Anu P. Alex, Travel and Mode Choice Behaviour of Trip Makers – A Comparative Study Between Kerala and Tamilnadu**, National Conference on Advances in Civil Engineering: Perspectives of Developing Countries, Harcourt Butler Technical Institute, Kanpur, pp. 677-686, 15-16 February 2003
15. **Samson Mathew and Ajilesh K. T., TRADES – A Package for Travel Demand Estimation Using Link Volume Philosophy**, National Conference on Advances in Civil Engineering: Perspectives of Developing Countries, Harcourt Butler Technical Institute, Kanpur, pp. 655-668, 15-16 February 2003

16. **Samson Mathew** and Sathish Babu T., **A Study on Shoulder Width and Its Effect on Carriageway Effective Width**, National Conference on Advances in Civil Engineering: Perspectives of Developing Countries, Harcourt Butler Technical Institute, Kanpur, pp. 699-711, 15-16 February 2003
17. **Samson Mathew**, P. Anand and S. Saraswathy, **Quantification of Urban Accessibility Levels – A Case Study of Tiruchirappalli**, National Conference on Urban Transport & Environment, K.L.E. Society's College of Engineering & Technology, Belgaum (Karnataka), pp. 380-391, 5-7 June 2003
18. **Samson Mathew**, Anil Kumar Muddalapuram and D. Srividya, **Modal Integration for Hyderabad Urban Mass Transport System**, National Conference on Urban Transport & The Environment, K.L.E. Society's College of Engineering & Technology, Belgaum (Karnataka), pp.156-165, 5-7 June 2003
19. **Samson Mathew**, Ravishankar Ramachandran and Nitin Kumar, **ITS – A Mobile Technology Based Vehicle Monitoring**, National Conference on Urban Transport & The Environment, K.L.E. Society's College of Engineering & Technology, Belgaum, Karnataka, pp. 189-199, 5-7 June 2003
20. **Samson Mathew** and D. Srividya, **Intelligent Transport Systems As an Emerging Trend for Urban Sustainable Development**, National Seminar on Sustainable Habitat, T. K. M. College of Engineering, Kollam, Kerala, India, 22-23 August 2003
21. **Samson Mathew** and R. Manjula, **Integrated GIS for Groundwater Modelling and Sustainable Development**, National Seminar on Sustainable Habitat, T. K. M. College of Engineering, Kollam, Kerala, India, 22-23 August 2003
22. **Samson Mathew** and D. Srividya, **Bicycles-A User-Friendlier, Energy-Efficient, Ecofriendly Mode of Transport**, National Seminar on Sustainable Habitat, T. K. M. College of Engineering, Kollam, Kerala, India, 22-23 August 2003
23. **Samson Mathew**, A. Durga Giridhar and Itta Subramanyam, **PDMS – A Flexible Pavement Design and Monitoring System**, National Conference on Modern Cement Concrete and Bituminous Roads, College of Engineering, GITAM, Visakhapatnam, pp. 152-160, 18-20 December 2003
24. **Samson Mathew**, K. Ahmed Asif and Suthakar C. J., **A Simplified Method for Flexible Pavement Overlay Design**, National Conference on Modern Cement Concrete and Bituminous Roads, College of Engineering, GITAM, Visakhapatnam, pp. 161-171, 18-20 December 2003
25. **Samson Mathew**, S. Jayalakshmi and V. Durga Prasad, **Low Cost Subgrade Stabilization of Problematic Soils for Rural Roads**, National Conference on Modern Cement Concrete and Bituminous Roads, College of Engineering, GITAM, Visakhapatnam, pp. 513-520, 18-20 December 2003
26. **Samson Mathew**, Kanhaiya Charan and Nandury. S. Kameswara Rao, **Analysis of Accident Data - A Case Study of NH – 45**, National Conference on Modern Cement Concrete and Bituminous Roads, College of Engineering, GITAM, Visakhapatnam, Vol.II, 18-20 December 2003
27. **Samson Mathew**, Swaminathan G, Porselvan P and Venkat Kumar N., **GIS for Ground Water Quality and Health Management**, National Seminar on GIS Development: Methodologies, Prospects and Applications, Department of Geography, School of Earth and Atmospheric Sciences, University of Madras, Chennai, 29-30 March 2004
28. **Samson Mathew**, D. Srividya and V. Sunitha, **Selection of Site for Vegetable Market in Tiruchirappalli Using Integrated GIS and User Optimization** National Conference on Applications of GIS and GPS in Civil Engineering, Jaya Engineering College, Thiruninravur, pp. 151-161, 03 July 2004
29. R. Manjula and **Samson Mathew**, **Identification of Artificial Recharge Zones Using Integrated GIS**, National Symposium on Futuristic Steel Structures & Application of GIS in Water Resources and Environmental Engineering, Karunya Institute of Technology & Science, Coimbatore, December 16, 2004
30. **Samson Mathew**, S. Anita, S. Saraswathy and R. Sundaresan, **Remote Monitoring of Vehicle Using GPS**, National Conference on Advances in Road Transportation (ART-2005), National Institute of Technology, Rourkela, Orissa, India, 12-13 February 2005



31. **Samson Mathew**, D Srividya, V Sunitha and R Sundaresan, **User Optimised Vegetable Market Site Selection Using Integrated GIS**, National Conference on Advances in Road Transportation (ART-2005), National Institute of Technology, Rourkela, Orissa, India, 12-13 February 2005
32. **Samson Mathew**, R Jayashankar, B Jeyanthi and D Srividya, **GIS Based Bridge Management System**, National Conference on Advances in Road Transportation (ART-2005), National Institute of Technology, Rourkela, Orissa, India, 12-13 February 2005
33. **Samson Mathew** and D Srividya, **GIS Based Pavement Management System for Tamil Nadu**, National Conference on Advances in Road Transportation (ART-2005), National Institute of Technology, Rourkela, Orissa, India, 12-13 February 2005
34. **Samson Mathew**, S. Moses Santhakumar, R. Sundaresan and P. Suresh Babu, **GIS-GPS Based Monitoring of Water Supply Trucks of Tiruchirappalli Corporation**, National Conference on Applications of Information and Communication Technologies in Urban Infrastructure Planning and Management, Jaya Engineering College, Thiruninravur, Tamil Nadu, pp. 97-105, 19<sup>th</sup> March 2005
35. **Samson Mathew**, S. Anita, S. Saraswathy and R. Sundaresan, **Remote Monitoring of Vehicle Using GPS**, National Conference on Applications of Information and Communication Technologies in Urban Infrastructure Planning and Management, Jaya Engineering College, Thiruninravur, Tamil Nadu, pp. 89-96, 19<sup>th</sup> March 2005
36. N. Venkat Kumar, **Samson Mathew** and G. Swaminathan, **Monitoring of Ground Water Quality Using GIS**, National Seminar on Innovative Techniques for Sustainable Development of Water Resources (ISDWR – 2005), Annamalai University, Annamalainagar, March 24-25, 2005
37. **Samson Mathew**, G. Swaminathan and N. Venkat Kumar, **GIS Integration for Ground Water Quality and Health Effects in Arcot Area**, National Conference on Geotechnics in Environmental Protection, Motilal Nehru National Institute of Technology, Allahabad, 9-10 April 2005
38. G. Niranjana, **Samson Mathew** and P. Jayabalan, **A Study on the Effect of Fiber Reinforcement in Concrete Pavements**, National Conference on Innovative Technologies in Civil Engineering, Coimbatore Institute of Technology, Coimbatore, 20-21, March 2006
39. S. Moses Santhakumar, **Samson Mathew** and Sayed Bilal, **Applications of Geographical Information Systems in the Transportation Sector**, National conference on GIS, GPS and RS Applications in Transportation Planning and Management, St. Peter's College of Engineering, Chennai, 21 – 22, November 2006.
40. **Samson Mathew**, D. Srividya, and Pooja S. Nair, **Integrated GIS as a Tool for Land Use Planning**, National conference on GIS, GPS and RS Applications in Transportation Planning and Management, St. Peter's College of Engineering, Chennai, 21 – 22, November 2006.
41. **Samson Mathew**, S. Moses Santhakumar, S. Saraswathy and V. Palanikumar, **Applications of GPS in Study of Highway Geometrics**, National conference on GIS, GPS and RS Applications in Transportation Planning and Management, St. Peter's College of Engineering, Chennai, 21 – 22, November 2006
42. **Samson Mathew**, S. Moses Santhakumar and A. Siddique, **Pavement Management System for Rural Roads**, National conference on GIS, GPS and RS Applications in Transportation Planning and Management, St. Peter's College of Engineering, Chennai, 21 – 22, November 2006
43. **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, St. Peter's College of Engineering, Chennai, 21 – 22, November 2006
44. **Samson Mathew**, V. Sunitha, R. Resmi and Pooja S. Nair, **Commuter's Rating on Bus Transport System in Tiruchirappalli City**, National conference Focussing on Advances in Civil Engineering, Thangal Kunju Musaliar College of Engineering, Kollam, Kerala, India, 1 – 3, February 2007
45. **Samson Mathew**, V. Palani Kumar, Ishan Bajpai, Shubhrata Singha and Somnathsen, **Emergency Vehicle Assistance System Using GIS and GPS**, National conference on Focussing on Advances

- in Civil Engineering, Thangal Kunju Musaliar College of Engineering, Kollam, Kerala, India, 1 – 3, February 2007
46. **Samson Mathew, A. K. Raji, V. Sunitha and Swathi N., Rural Road Network Planning- A Case Study of Karimnagar District in Andhra Pradesh**, National conference Focussing on Advances in Civil Engineering, Thangal Kunju Musaliar College of Engineering, Kollam, Kerala, India, 1 – 3, February 2007
  47. **Samson Mathew, R. Jayasankar and Shaik Abdul Rasheed, Economic Evaluation of Grade Separation at a Signalized Intersection**, National Seminar on Roads 2007, The Institution of Engineers, Belgaum, 1 – 2, March 2007
  48. **Samson Mathew and L. Balamurali Krishna, Studies on Polymer Modified Bituminous Mixes**, National Seminar on Roads 2007, The Institution of Engineers, Belgaum, 1 – 2, March 2007
  49. **Samson Mathew, P.Selvi and V.S.Velmurugan, Influence of Rice Husk Ash and Cement on Engineering Properties of Clay Soils**, National Seminar on Roads 2007, The Institute of Engineering, Belgaum, 1 – 2, March 2007
  50. **Samson Mathew, P.Selvi and V.S.Velmurugan, Influence of Fly Ash on Engineering Properties of Nagapattinam Coastal Subgrade Soil**, National Seminar on Fly Ash Utilization Avenues in Civil Engineering, K.L.E. Society's College of Engineering and Technology, Belgaum, 9 – 10 March 2007
  51. **Samson Mathew, V.Palani Kumar and S.Saraswathy, Study of Highway Geometrics Using GPS**, National Conference on Earthquake and Transportation Engineering, Sona College of Technology, Salem, 22-23, March 2007
  52. **Samson Mathew, S.Moses Santhakumar, V. Sunitha and J. Sheeba, Travel Characteristics of Tamil Nadu Rural Population**, National Conference on Earthquake and Transportation Engineering, Sona College of Technology, Salem, 22-23, March 2007
  53. **Samson Mathew, P.Selvi and K.B.Velliangiri, A Study on Effects of Fly Ash and Cement on Engineering Properties of SM-SC Soils**, National Conference on Recent Advances in Civil Engineering, RVS College of Engineering & Technology, Dindigul, 5<sup>th</sup> April 2007
  54. **Samson Mathew, G.Niranjana and P.Jayabalan, Scrap Steel Fibre Reinforcement for Strength Enhancement of Rigid Pavement**, National conference, Workshop and Exposition on Trends in Road Making Materials, Methods & Machines for Quality, Economy and Speed sponsored by All India Council for Technical Education, LNCT, Bhopal, 21-24 April 2007
  55. **Samson Mathew, P.Selvi and V.S.Velmurugan, Study on Rice Husk Ash as Subgrade Stabilization Material**, National Conference, Workshop and Exposition on Trends in Road Making Materials, Methods & Machines for Quality, Economy & speed sponsored by All India Council for Technical Education, LNCT, Bhopal, 21-24 April 2007
  56. **Samson Mathew, S.Moses Santhakumar and A.Ganesh Raghavan, GIS Based Analysis of PMGSY Road Network of Tamilnadu**, National Conference on Application of GIS in Civil Engineering organized by School of Civil Engineering, Karunya University, Coimbatore, 173-191, February 16th, 2008
  57. **Samson Mathew and Chinnu Anna Jacob, Estimation of Origin – Destination Matrix from Link Volume Counts Using Bi-Level Programming**, National Conference on Recent Innovations in Technology, organized by Rajiv Gandhi Institute of Technology, Kottayam, March 26-28, 2009
  58. **Samson Mathew and N. Surekha, Activity Travel Pattern of a Residential Campus**, National Conference on Recent Innovations in Technology, organized by Rajiv Gandhi Institute of Technology, Kottayam, March 26-28, 2009
  59. **Vidya R., S. Moses Santhakumar and Samson Mathew, Road Surface Image Segmentation, Texture, Analysis and Classification Using Image Processing**, Sustainable Urban Transportation

Planning Issues and Management Strategies (SUTRIMS 11), Sardar Vallabhbhai National Institute of Technology, Surat, July 08 – 10, 2011

60. **Forecasting Urban Sprawl and Traffic Conditions in Tiruchirappalli City**, Urban Mobility India Research Symposium, 3- 6 December 2011, New Delhi
61. **Development of Park and Ride System in Tiruchirappalli City**, 1<sup>st</sup>TRG Conference, Bangalore, December 7-10, 2011
62. Sunitha V. and **Samson Mathew**, **Urban Pavement Maintenance Management Systems (UPMMS)**, National Conference on Urban Mobility – Challenges, Solutions and Prospects, IITM, Chennai, July 13 – 14, 2012
63. Moses Santhakumar, **Samson Mathew** and Nisha Radhakrishnan, **Urban Speed Management Using ITS**, National Conference on Urban Mobility – Challenges, Solutions and Prospects, IITM, Chennai, July 13 – 14, 2012
64. **Origin Destination Matrix using Bi-level Programming**, India Geospatial Forum, Hyderabad Internal Convention Centre, Hyderabad, 22 -24 January 2013
65. **Speed Detection and Management – ‘ITS’ application**, India Geospatial Forum, Hyderabad Internal Convention Centre, Hyderabad, 22 -24 January 2013
66. G. Nantha Priya, **Samson Mathew** and G. Subbaiyan, **Mode Choice Analysis of Senior Citizens – A Case Study of Tiruchirappalli City**, International Conference on Ingenious Technologies and Sustainable Developments in Civil Engineering (ICICE), Noorul Islam University, Kumaracoil, Kanyakumari District, Tamilnadu, 8<sup>th</sup> October 2014
67. R.T Arjun Siva Rathan, V. Sunitha and **Samson Mathew**, **Experimental Investigation on partial Replacement of fine Aggregate with Waste Granite Fines in Concrete Paving Block**, International Conference on Ingenious Technologies and Sustainable Developments in Civil Engineering (ICICE), Noorul Islam University, Kumaracoil, Kanyakumari District, Tamilnadu, 8<sup>th</sup> October 2014
68. Sonali Snehajan and **Samson Mathew**, **Dynamic Travel Time Estimation of a Highway Using Macroscopic Model for Heterogeneous Traffic**, Recent Advances in Traffic Engineering (RATE-2015) held at SVNIT, Surat, 3-4 July 2015
69. Sumetha R, **Samson Mathew**, **Analyzing the demand for Public Transport through Behavioral Mode Choice Models for Work Trips in Tiruchirappalli City**, 12<sup>th</sup> TPMDC, 19-21 December 2016
70. G. Nanthapriya, G. Subbaiyan, **Samson Mathew**, **Impact of mode choice in Estimating the social Travel Demand of Senior Citizens- A case study of Tiruchirappalli City**, 12<sup>th</sup> TPMDC, 19- 21 December 2016
71. Bush B. Thomas, G. Nanthapriya, V. Sunitha, **Samson Mathew**, **Mode Choice modelling of Commuter Trips in Tiruchirappalli City using MNL**, 12<sup>th</sup> TPMDC, 19- 21 December 2016
72. D. Latha, V. Sunitha, **Samson Mathew**, **Viscoelastic Continuum Damage Analysis for Binders using Dynamic Shear Rheometer**, 12<sup>th</sup> TPMDC, 19- 21 December 2016

## 18. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized

- i. AICTE - ISTE Winter School on **Advanced Computer Applications in Transportation Engineering (ACATE)** - Two weeks short term course for Engineering Faculty and Practicing Engineers
- ii. Short-term course on **Modern Survey Equipments** – Five days course for PWD Engineers, during 7 – 11, January 2002

- iii. Short-term course on **Advanced Surveying Techniques** - Five days course for PWD Engineers 18 – 22 January 2002
- iv. **PMGSY** Training Programme for Assistant Engineers of Rural Development Department, 17-19 September 2003, 20-25 September 2004, 4-9 October 2004, 25-30 October 2004 and 1-6 November 2004
- v. **Road Safety – Training of Users for Dissemination of Road Safety Manual – users Workshop (UW5)**, 17-19 October 2005
- vi. **Road Safety – Training of Users for Dissemination of Road Safety Manual – users Workshop (UW6)**, 20-22 October 2005
- vii. TEQIP sponsored Short Term Course on **Design, Construction and Maintenance of Roads** in October 2007
- viii. NRRDA sponsored six-day Training Programme on **PMGSY for the AEs of the Rural Development Department**, 18-23, May 2009
- ix. NRRDA sponsored three-day Training Programme on **PMGSY for the AEEs of the Rural Development Department**, 23-25, June 2009
- x. NRRDA sponsored six-day Training Programme on **PMGSY for the AEs of the Rural Development Department**, 13-18, July 2009
- xi. Involved in organising Continuing Education Programmes to the Engineers of the Tamilnadu Highways Department on **Road Safety Audit** at **Villupuram** (18-19 March 2010), **Trichy** (22-23 April 2010), **Salem** (6-7 May 2010), **Madurai** (31.05.2010-1.6.2010), **Tirunelveli** (3-4 June 2010) and **Coimbatore** (21-22 July 2010) along with Dr. A. Veeraragavan, Professor, Indian Institute of Technology Madras and Sponsored under Tamil Nadu Road Sector Project
- xii. PMGSY Training programme for State Quality Monitors – May 2013
- xiii. Coir Board Sponsored Training Programme on **Technological Initiatives under PMGSY**, 7.10.2013
- xiv. Workshop on **Urban Pavement Maintenance Management Systems (UPMMS)** to Corporation Engineers, April 16<sup>th</sup> 2015
- xv. 2<sup>nd</sup> Conference on **Transportation Systems Engineering and Management (CTSEM)**, 1-2 May, 2015
- xvi. Short Term Programme on **Recent Trends In Transportation Engineering**, July 11-16, 2016
- xvii. Three day Workshop on **Traffic Simulation Tools**, December 01.12.2016 – 03.12.2016
- xviii. Faculty Development programme on **Glass in Buildings**, 05.12.2016 - 09.12.2016
- xix. Three day Short term Training programme on **Recent trends in Pavement Engineering**, December 12.12.2016 – 14.12.2016
- xx. Three day Workshop on **Binder Rheology**, December 15.12.2017 – 17.12.2016
- xxi. One day Workshop on **Sustainability in Road Construction**, December 17.12.2016

## 19. Expert Lectures Delivered

1. Design of Signal Controlled intersections, R.E.C., Calicut, Short Term Course on Road Intersection Design and Management, 20-22, November 1996
2. Development of Surface Transportation in India, Institution of Engineers, Tiruchirappalli Chapter, December 1996

3. Electro Magnetic Radiation, ISTE summer school on Solar Architecture, Regional Engineering College, Calicut, 19-30 May 1997
4. Vastu Sastra for Industrial Structures, Winter School on Recent Developments on Analysis, Design and Detailing of Industrial Structures, R.E.C., Tiruchirappalli 1 – 13 December 1997
5. Computer Applications in Rural Development, Rural Action Plan Integrated Database(RAPID) training course at State Institute of Rural Development, Maramalainagar, Chennai from 24.06.1999 to 26.06.1999
6. RAPID training program for staff of DRDA at State Institute of Rural Development, Maramalainagar, Chennai on 19.08.1999
7. Indian Remote Sensing – Periyar Maniammai College of Technology for Women, Vallam, on 3.09.1999
8. Remote Sensing and its Applications, Institution of Engineers, Tiruchirappalli Chapter, 2.05.2000
9. Indian Remote Sensing – Periyar Maniammai College of Technology for Women, Vallam, August 2000
10. Remote Sensing and its Applications, Institution of Engineers, Tiruchirappalli Chapter, September 2000
11. Keynote Address delivered at Kottayam on 20<sup>th</sup> March 2001, Indo-Over Seas Alliance for Business Development meeting
12. Test on Aggregates, Short term course on Quality control and Testing in Concrete construction, R.E.C., Tiruchirappalli March 4-8, 2002
13. Test on Aggregates, Short term course on Quality control and Quality Assurance in Concrete Constructions, R.E.C., Tiruchirappalli 13-24 May 2002
14. Sustainable Urban Transport Systems, Short term course on Sustainable Urban Habitat, Thangal Kunju Musaliar College of Engineering, Quilon, November 03-15, 2003
15. Applications of Remote Sensing and GIS, Short term training programme on Industrial Safety and Environmental Engineering, Anjalai Ammal Mahalingam Engg. College, Thiruvaur, March 24, 2004
16. Applications of GIS & RS in Engineering with Case Studies, Short term training programme on Engineering Applications of GIS, GPS & RS, Shri Angalamman College of Engineering & Technology, Tiruchirappalli, March 26, 2004
17. Quality Control in Rural Road Construction and Maintenance in Tamil Nadu, PMGSY Training Programme, College of Engineering, Trivandrum, May 20, 2004
18. Integrated GIS as a Tool for Urban Land Use Monitoring and Planning, Advanced Training Programme on Applications of GIS, GPS and Remote Sensing in Urban Infrastructure Planning and Management, Jaya Engineering College, Chennai, November 20, 2004
19. Integrated GIS for Sustainable Development, Advanced Training Programme on Applications of GIS, GPS and Remote Sensing in Urban Infrastructure Planning and Management, Jaya Engineering College, Chennai, November 20, 2004
20. Remote Sensing - Indian Remote Sensing Satellites, Advanced Training Programme on Applications of GIS, GPS and Remote Sensing in Urban Infrastructure Planning and Management, Jaya Engineering College, Chennai, November 20, 2004
21. Applications of Remote Sensing, Short term training Programme, Modern Trends in Surveying, Periyar Centenary Polytechnic College, Thanjavur, November 30, 2004
22. GPS and its applications, Short term Training programme, Modern Trends in Surveying, Periyar Centenary Polytechnic College, Thanjavur, November 30, 2004
23. Remote Sensing and GIS, Short term training programme on Failure of Structures, Shanmuga Polytechnic College, Thanjavur, November 29, 2004
24. ITS – A Sustainable Transportation System, Welcome day Programme, Periyar Maniammai College of technology for Women, Thanjavur, December 22, 2004
25. Application of Integrated GIS in Watershed Management, short term training programme on Watershed Management Using GIS and Remote Sensing, Periyar maniammai College of Technology for women, Vallam, Thanjavur, January 5, 2005



26. Remote Sensing and GPS Applications, Welcome day Programme, Periyar Maniammai College of technology for Women, Thanjavur, July 20, 2005
27. Aggregate Characterization and Properties of Bitumen - Field Tests – Acceptance criteria, Training Programme on Quality Control, College of Engineering, Trivandrum, August 10, 2006
28. Remote Sensing for Transportation and Land Use Planning, Key note address delivered at National Conference on GIS, GPS and RS Applications in Transportation Planning and Management, November 20, 2006
29. Importance of Geo-Technology in the Safety of Airfield Pavements, Aviation Safety week 2006, Airports Authority of India, Tiruchirappalli Airport, 30<sup>th</sup> November 2006.
30. Tests on Soils, Workshop on Testing of Construction Materials (Under TEQIP Community Service) Department of Civil Engineering, National Institute of Technology, Tiruchirappalli, 27<sup>th</sup> February 2007
31. Application of GIS in Transportation Planning Advanced Technologies for Surveying, AICTE Staff Training Programme, Muthayammal Polytechnic College, Rasipuram, 9<sup>th</sup> March 2007
32. GIS and Remote Sensing Applications in Engineering Sciences, Government College of Technology, Coimbatore, 25<sup>th</sup> May 2007
33. GIS and GPS Applications in Transportation Engineering, GIS and GPS Application in Civil Engineering, Department of Civil Engineering, Oxford Engineering College, Trichy, 4<sup>th</sup> May 2008.
34. Navigation System and Basics of GPS, Types of GPS – Static, Kinetic, Advanced Training Programme on Application of Geomatics in Urban Transportation Planning and Management, organized by Department of Civil Engineering, St. Peter's University, Chennai, 13<sup>th</sup> October to 1<sup>st</sup> November 2008
35. PMGSY Guidelines, Training Programme on Planning, Design, Construction, Supervision & Quality Control of Rural Roads, for Executive Engineers, SIRD, Chennai, 2<sup>nd</sup> to 3<sup>rd</sup> April 2009
36. Design of Flexible and Rigid Pavements, Training Programme on Planning, Design, Construction, Supervision & Quality Control of Rural Roads for Executive Engineers, SIRD, Chennai, 2<sup>nd</sup> to 3<sup>rd</sup> April 2009
37. Mode Choice Analysis, Planning, Design & Evaluation of Urban Transportation Systems, 31<sup>st</sup> May – 11<sup>th</sup> June 2010, National Institute of Technology, Calicut
38. Quality Control Mechanism in construction, Training Programme on Planning and Implementation of Pradhan Mantri Gram Sadak Yojana (PMGSY) to Executive Engineers and Asst. Executive Engineers, 6<sup>th</sup> July, 2011, State Institute of Rural Development, Kerala
39. Quality Control in Construction and Maintenance of PMGSY Roads, Training Programme on Convergence of Pradhan Mantri Gram Sadak Yojana (PMGSY) with other RD Programmes, 1<sup>st</sup> November 2011, State Institute of Rural Development, Tamilnadu
40. GIS in PMGSY, Training Programme on Convergence of Pradhan Mantri Gram Sadak Yojana (PMGSY) with other RD Programmes, 1<sup>st</sup> November 2011, State Institute of Rural Development, Tamilnadu
41. Urban Planning, M.Tech in Transportation Engineering, Rajiv Gandhi Institute of Technology, Kottayam, 8-9 March, 2012
42. Quality Control, Training Programme on Quality Assurance and Quality Control in Rural Roads, Centre for Transportation Research, Department of Civil Engineering, National Institute of Technology, Calicut, 6<sup>th</sup> September, 2013
43. Pavement Recycling, One Day Workshop on Modern Bituminous Mix Technologies, Centre for Transportation Research, Department of Civil Engineering, National Institute of Technology, Calicut, 6<sup>th</sup> September, 2013
44. Intelligent Transportation Systems for Improved Road Safety, Safety Conference 2013, Safety in Infrastructure Sector, The Institution of Engineers (India), Chennai, 19-20, July 2013
45. Trip Assignment, Short term Programme on Urban Transport Systems Planning, National Institute of Technology, Calicut, 27<sup>th</sup> November, 2013
46. Land Use Transport Interaction, Short term Programme on Urban Transport Systems Planning, National Institute of Technology, Calicut, 27<sup>th</sup> November, 2013

47. Transportation Planning, Key note address at TYRES 2013, National Institute of Technology, Warangal, 28-29 March, 2014
48. Sustainable Urban Transportation Systems, CARE Engineering College, Trichy, 24<sup>th</sup> July, 2014
49. Design of Roundabouts & Rotaries, Short Term Programme on Road Traffic Engineering – Principles and Applications, National Institute of Technology, Calicut, December 3, 2014.
50. Pedestrian and Bicycle facilities, Short Term Programme on Road Traffic Engineering – Principles and Applications, National Institute of Technology, Calicut, December 4, 2014
51. Design of Bus Bays, Lighting on Roads, Short Term Programme on Road Traffic Engineering – Principles and Applications, National Institute of Technology, Calicut, December 4, 2014.
52. Pavement Construction and Maintenance, Training Programme on Design, Construction and Maintenance of Roads, Transportation Research Centre (TRC), College of Engineering, Trivandrum, 9<sup>th</sup> January, 2015.
53. ITS applications for Indian Road Condition, National Conference on Innovative Materials and Technologies in Civil Engineering NATCON 2015, Bishop Jerome Institute, Kollam, 20<sup>th</sup> February, 2015.
54. Transportation Engineering – Way forward, Workshop on Advancements in Civil Engineering, Saveetha School of Engineering, Chennai, 18<sup>th</sup> March 2015.
55. Performance Monitoring, Workshop on Alternative Materials and New Technologies for Rural Road Construction, National Institute of Technology, Calicut April 10 - 11, 2015
56. Performance Monitoring, Workshop on Alternative Materials and New Technologies for Rural Road Construction, National Institute of Technology, Calicut July 20 - 21, 2015
57. Lessons/observations on use of low-cost material and technology in rural roads in Tamilnadu, Knowledge Sharing Workshop on use of Green and low-cost materials and Technology in Rural Roads in India organised by The World Bank, NRRDA and Korea Growth Partnership, September 22 – 23, 2015
58. Inaugural address, Faculty Development Programme on Application of GIS and Remote Sensing organized by Dept. of Civil Engineering, University College of Engineering, BIT Campus, Anna University, Tiruchirappalli, 24<sup>th</sup> April, 2015
59. GIS and Transportation Engineering, Faculty Development Programme on Application of GIS and Remote Sensing organized by Dept. of Civil Engineering, University College of Engineering, BIT Campus, Anna University, Tiruchirappalli, 24<sup>th</sup> April, 2015
60. Road Safety – Principles and Checklist, Training Programme on Road Safety Engineering for Engineers of PWP&IWTD, Govt. of Karnataka at Dept. of Civil Engineering, RV College of Engineering, Bengaluru, 19<sup>th</sup> August, 2015.
61. Road Safety Furniture and Specifications, Training Programme on Road Safety Engineering for Engineers of PWP&IWTD, Govt. of Karnataka at Dept. of Civil Engineering, RV College of Engineering, Bengaluru, 19<sup>th</sup> August, 2015
62. Road Safety – Principles and Checklist, Training Programme on Road Safety Engineering for Engineers of PWP&IWTD, Govt. of Karnataka at Dept. of Civil Engineering, RV College of Engineering, Bengaluru, 27<sup>th</sup> August, 2015
63. Road Safety Furniture and Specifications, Training Programme on Road Safety Engineering for Engineers of PWP&IWTD, Govt. of Karnataka at Dept. of Civil Engineering, RV College of Engineering, Bengaluru, 27<sup>th</sup> August, 2015
64. Composite Pavements, Short Term Training Programme on Recent innovations in Transportation Engineering organized by Department of Civil Engineering, Government Engineering Collage, Thrissur, 8<sup>th</sup> October, 2015
65. Road Safety – Principles and Checklist, Training Programme on Road Safety Engineering for Engineers of PWP&IWTD, Govt. of Karnataka at Dept. of Civil Engineering, RV College of Engineering, Bengaluru, 5<sup>th</sup> November, 2015
66. Road Safety Furniture and Specifications, Training Programme on Road Safety Engineering for Engineers of PWP&IWTD, Govt. of Karnataka at Dept. of Civil Engineering, RV College of Engineering, Bengaluru, 5<sup>th</sup> November, 2015



67. Road Safety Audit, Two Weeks Training Programme on Design, Construction, Maintenance and Management of Urban Roads, at Dept. of Civil Engineering, RV College of Engineering, Bengaluru, 17<sup>th</sup> February, 2016
68. Design of Traffic Signals, Two Weeks Training Programme on Design, Construction, Maintenance and Management of Urban Roads, at Dept. of Civil Engineering, RV College of Engineering, Bengaluru, 17<sup>th</sup> February, 2016
69. Innovative Techniques on Asphalt Pavement, one day workshop on organized by the Department of Civil Engineering, PSNA College of Engineering and Technology, Dindigul, 23rd June 2016
70. Traffic and Transportation Engineering – Research Needs in India, Research Colloquium, Transportation Engineering, Rajiv Gandhi Institute of Technology, Kottayam, 23<sup>rd</sup> September, 2016
71. Challenges Transportation Sector – Role of Academia, AICTE Sponsored Short Term Course (QIP) on Recalibrating the Industry – Institute Space, TKM College of Engineering, Kollam, 06.03.2017.

## **20. Seminars/Conferences/Symposia Attended**

1. Second National Conference on Transportation Systems Studies: Analysis and Policy (NCOTSS-90), Association for Transport Development in India, I.I.T., Delhi, 01.12.1990 -03.12.1990
2. International AMSE Conference on Signals, Data and Systems Association for the Advancement of Modelling and Simulation Techniques in Enterprises, Calcutta, 07.12.1992 -09.12.1992
3. National Seminar on Urban Transportation, Indian National Academy of Engineering, Central Road Research Institute, New Delhi, 12.02.1993 - 13.02.1993
4. Seminar on Transportation Infrastructure - Kerala 2001, Transportation Engineering Division, College of Engineering, Trivandrum, 18.03.1993
5. Third National Conference on Transportation Systems Studies: Analysis and Policy (NCOTSS-90), Association for Transport Development in India (ATDI), Vishakhapatnam, 11.12.1993 - 12.12.1993
6. Sixth Kerala Science Congress, State Committee of Science, Technology and Environment, Kerala, Trivandrum, 27.01.1994 to 29.01.1994
7. Seventh Kerala Science Congress, State Committee on Science, Technology and Environment, Palakkad, Kerala, 27.01.1995 to 29.01.1995
8. National Seminar on Emerging Trends in Highway Engineering, Centre for Transportation Engineering, Bangalore University, Bangalore, 10.03.1995 - 11.03.1995
9. International Symposium on Infrastructure of the Future, Association of Consulting Civil Engineers, India, 25.11.1996 - 29.11.1996
10. Second National Convention on Vastuvidya, Vastuvidyapratisthanam, College of Engineering, Trissur, 15.12.1996 - 16.12.1996
11. National Seminar on Trends and Techniques in Transportation, Centre for Transportation Engineering, Regional Engineering College, Warangal, India, 23.08.1997-25.08.1997
12. National Conference on Road Infrastructure Management (RIM) in the New Millennium, Bangalore University, Bangalore March 10-11, 2000
13. Tenth User Interaction Workshop at NRSA, Hyderabad 15 –16 March 2000
14. Regional Workshop on Remote Sensing, Institute of Remote Sensing, Anna University, Chennai, August 2000.
15. National Seminar on Geoinformatics, PSG Tech, November 16 & 17, 2000
16. National Seminar on Road Accidents Causes and Preventive Measures, December 19 –21 December 2001
17. Indian Roads Congress 62<sup>nd</sup> Annual Session, Indian Road Congress, Kochi (Cochin), 11 January, 2002
18. Seminar on Recent Developments in Design of Hydraulic Machines, Shri Angalamman College of Engineering and Technology, Tiruchirappalli, 1 February, 2003

19. National Seminar on Urban Environmental Management (NSUEM – 2003), Periyar Maniammai College of Technology for Women, Thanjavur, 10-11 February 2003
20. International Conference on Sustainable Development and Management of Natural Resources, Holy Cross College, Tiruchirappalli, 15-17 March 2003
21. National Conference on Urban Transport and the Environment, K.L.E. Society's College of Engg. & Tech., Belgaum, 5-7 June 2003
22. National Conference on Recent Trends in Flow Measuring Techniques, Shri Angalamman College of Engineering and Technology, Tiruchirappalli, 5 July, 2003
23. National Seminar on Sustainable Habitat, T.K.M. College of Engineering, Kollam, Kerala, 22-23 August, 2003
24. Advances in Road Transport (ART-2005), National Institute of Technology, Rourkela, Orissa, India, 12-13 February 2005
25. Prithvi 2005, Global ECO Meet, Swadeshi Science Movement at Trivandrum, Kerala, India 24-25 February 2005
26. National Conference on Applications of Information and Communication Technologies in Urban Infrastructure Planning and Management, Jaya Engineering College, Thiruninravur, Tamil Nadu, 19<sup>th</sup> March 2005
27. National conference on GIS, GPS and RS Applications in Transportation Planning and Management, St. Peter's College of Engineering, Chennai, 21 – 22, November 2006
28. National Conference and Exposition of Rural Roads, National Rural Roads Agency, New Delhi 22-24, May 2007
29. Indian Road Congress (68<sup>th</sup> Annual Session), Jaipur (Rajasthan), November 19-22, 2007
30. National Seminar on "Application of Coir Geotextiles on Roads" on 27<sup>th</sup> May 2008, organized by Coir Board and Geotechnical Engineering Division, Dept. of Civil Engineering, College of Engineering Trivandrum
31. International Conference on "Transportation Planning and Implementation Methodologies for Developing Countries", TPMDC-2008, December 3-6, organized by Indian Institute of Technology Bombay
32. Indian Road Congress (69<sup>th</sup> Annual Session), Kolkata (West Bengal), December 13-16, 2008
33. National Workshop on Asset Management in Rural Roads – Issues and Challenges, 28 – 29 April 2009, Dr. MCR – HRD State Training Institute, Jubille Hills, Hyderabad
34. PIARC – International Seminar on Sustainable Maintenance of Rural Roads, 21-23 January 2010, National Academy of Construction, Hyderabad
35. Trends and Advances in Transportation Engineering(TREAT-2010), 10-11 March 2010 at Bangalore
36. National Workshop on Sustainable Concrete Pavements – Practices, Challenges and Directions at IIT Madras, Chennai, 13<sup>th</sup> October 2010
37. One day workshop on Alternate Technologies for Road Construction, Rural Development and Panchayat Raj Department, Govt. of Tamilnadu, 7<sup>th</sup> February, 2013
38. Indian Roads Congress – 73<sup>rd</sup> Annual Session, Coimbatore, 7-11<sup>th</sup> January, 2013
39. International conference on Soft Computing and Machine Intelligence (ISCOMI 2015) at Hong Kong, China on 23<sup>rd</sup> and 24<sup>th</sup> November 2015
40. International Conference on Structural Engineering and Construction Management (ICSECM) during 11<sup>th</sup> - 14<sup>th</sup> December 2015
41. 3<sup>rd</sup> Conference of Transportation Research Group of India (CTRG), Kolkata, 17-20 December 2016
42. 9<sup>th</sup> Urban Mobility India Conference & Expo 2016, Planning Mobility for City's Sustainability, Ahmedabad, 8<sup>th</sup> – 11<sup>th</sup> November 2016
43. DST – IITM Dissemination Workshop on Modified Binders, IIT Madras, 24-25 October, 2016
44. 3<sup>rd</sup> Conference on Transportation Systems Engineering and Management-CTSEM-2016, Department of Civil Engineering, BMS College of Engineering, Bangalore 24-25 November 2016
45. Dissemination Workshop on Indo-Highway Capacity Manual (INDO-HCM), Organized by CSIR – Central Road Research Institute (CRRI), New Delhi, 20-21 February 2017

**46.** One Day Workshop on Urban Transport Management (UTM), Association of Bangalore University Highway Engineering Alumni, March 11, 2017

## **21. Major Consultancy Works**

- Planning and design of Cement Concrete and Bituminous Pavements for Corporation and Municipality/Town bus stands in and around Tiruchirappalli
- Slope stability assessment and analysis of Road and Railway embankments
- Runway pavement strength assessment of Trichy Airport
- Involved in soil investigation work for major projects like multi-storied buildings, water tanks, bridges etc.
- Socio-economic survey in selected villages of Tamilnadu for IIM, Bangalore
- Consultant for PMGSY rural roads
- Structural stability analysis of Buildings in Cordite Factory, Aruvangadu (Department of Defence)
- Stability analysis of ramp at Grasim Industries, Ariyalur
- Survey work for new cement plant for Chettinadu cement at Rani Seethai Nagar, Karikal
- Design of intersection of approach road to BPCL factory with bypass road at Irugalur
- Design of pavement for high axle load roads at Grasim Cement factory and SIDCO industrial estates
- Design of foundations for buildings at Gas turbine project at Thirumakkottai, Thiruvarur District
- Sub consultant to Rail India Technical and Economic Services (RITES) Ltd for carrying out traffic surveys
- GIS development for the Kerala Road Information Management System for Wilbur Smith Associates
- Axle Load Spectrum on NH67 for Wilbur Smith Associates
- Axle Load Spectrum on NH66 for Mukesh Associates
- Benkelman Beam Deflection studies on SH & MDR for Highways Department
- Design of Cement Concrete Pavements for the Municipal Bus Stands in Tirunelveli, Tiruvarur, Karur, Tiruchirappalli, Nagercoil, etc.
- Concurrence Evaluation of Flood Management Programme in the Kollidam River
- Road Safety Assessment of Tamil Nadu Road Sector Project Phases – 1, 2, 3 and 4
- Road Safety Audit (Design stage), Madurai – Theni section of NH 49
- Road Safety Audit (Design stage)NH 230 (New NH No. 85) Madurai – Thondi
- Road Safety Audit (Design stage) NH 49 - Construction of Missing Link in Dhanushkodi Road
- Road Safety Assessment of NH 47 (pre-opening) - Walayar to Vadakancheri section
- Independent consultant – Improvement and Augmentation of Trichy to Pudukkottai section of NH 220
- Independent consultant – Improvement and Augmentation of Tanjavur to Pudukkottai section of NH 226
- Designing asphalt mixes for construction of Automotive Test Track works of NATRiP at Oragadam, Chennai
- Proof check of plan and profile of Thirumayam - Manamaduari section of NH 226
- Proof check of plan and profile of Coimbatore - Pollachi section of NH 209

## **22. Professional Training**

1. Summer School on Interior Design Practice, R.E.C., Calicut, 17 - 31 May 1995
2. Workshop on Hydro Energy Systems - Turbine Performance Analysis with Associated Programmes on PC, M.A.C.T., R.E.C., Bhopal, 04 – 14 December 1995
3. Four Weeks Training Course on Remote Sensing Application in Town and Country Planning, National Remote Sensing Agency, Department of Space, Government of India, IIRS, Dehradun, 19.02.1996 - 15.03.1996

4. Summer School on Solar Architecture - Active and Passive Systems, R.E.C., Calicut, 19 – 30 May 1997
5. Winter School on Recent Developments on Analysis, Design and Detailing of Industrial Structures, R.E.C., Tiruchirappalli 1 – 13 December 1997
6. Training program on Microstation, Project Architect and Inroads, Rolta India Limited, Mumbai, India, July 28 to August 02, 1999
7. National Workshop on Ground Improvement, Shanmugha College of Engineering, Tirumalasangamam, 26-28 November, 1999
8. Tenth User Interaction Workshop, NRSA, Hyderabad, 15 –16 March 2000
9. Regional Workshop on Remote Sensing, Institute of Remote Sensing, Anna University, Chennai, 30 August 2000
10. Training Programme on Recent Advances in Waste water Treatment with Emphasis on Anerobic and Membrane Technologies, Pondicherry Engineering College, Pondicherry, 16-28 December, 2002
11. Geographical Information System course on Introduction to ArcGIS I & II & ArcGIS Spatial Analyst, ESRI, India, NIIT GIS Limited, 19-28 May, 2003
12. Training on ENVI 3.6 (Environment for Visualizing Images Software), Siera Atlantic Research Systems, 18-25 June, 200.
13. Training on REI-HEADS software, Research Engineers, RE-ATC, 11-12 July, 2003
14. Short Term course on Recent Developments in Urban Transportation Systems Planning, Indian Institute of Technology, Bombay, 21-25 July, 2003
15. Short Term Training Programme on Sustainable Urban Habitat, Thangal Kunju Musaliar College of Engineering, Quilon, 03-15 November 2003
16. Workshop on Recycling and other Pavement Rehabilitation Methods, IIT Kanpur, India, 8-10 February 2005
17. Trainers Workshop - Training of Trainers for Dissemination of Road Safety Manual, National Highways Authority of India, New Delhi, 17-20 May 2005
18. DST-NRDMs Sponsored Training Programme on Geospatial Technologies and Applications, Centre of Studies in Resource Engineering, Indian Institute of Technology, Bombay, 18-29, September 2006
19. Short Term Course on Pavement Engineering with Geosynthetics, Department of Civil Engineering Indian Institute of Technology, New Delhi, April 23-27, 2007
20. TEQIP Training Programme at National University of Singapore, 26<sup>th</sup> November 2007 to 26<sup>th</sup> December 2007
21. Training Programme on The 7 Habits of Highly Effective People, by M/s. Franklin Covey, Munnar, from 2<sup>nd</sup> to 4<sup>th</sup> October 2008
22. Seminar on New Materials in Road Construction on Stabilized Pavements, Transportation Division, Department of Civil Engineering, IIT Madras, Chennai, 1<sup>st</sup> March, 2011
23. Two days workshop on Using Science and Data in Road Safety Management, Transportation Division, Department of Civil Engineering, IIT Madras, Chennai, 15-16 February, 2013
24. Indian Concrete Institute and CSIR – Central Road Research Institute (CRRI) sponsored, National Workshop on Sustainable Concrete Pavements – Practices and Challenges & Directions at Hotel Dream, Kochi, June 1, 2013
25. One Day Workshop on Construction of Concrete Roads and Overlays – Do's and Don't's, Transportation Division, Department of Civil Engineering, IIT Madras, Chennai, 23<sup>rd</sup> September, 2013
26. Workshop on Sustainable Urban Transportation- IIT Madras, Chennai, February 13-14, 2014
27. Workshop on Application of Non-conventional Materials and Technologies in Rural Roads, School of infrastructure, IIT Bhubaneswar, August 22-23, 2014
28. TEQIP-II sponsored Conclave on Academic Reforms (CAR 2015), National Institute of Technology, Tiruchirappalli, 28 – 29 April, 2015

**29.** Knowledge Sharing Workshop on use of Green and low-cost materials and Technology in Rural Roads in India organised by The World Bank, NRRDA and Korea Growth Partnership, September 22 – 23, 2015

**23. Membership in Professional Organizations**

1. Life Member ISTE (LM 5904)
2. Life Member Institute of Urban Transport (M-481)
3. Member of the Institution of Engineers (India) (M125439-6)
4. Life member IRC (LM-28387)
5. Life Member Transportation Research Group (TRG)

**24. Academic Foreign Visits**

| <b>Country</b>    | <b>Duration of Visit</b>                          | <b>Programme</b>  |
|-------------------|---|---|
| Singapore         | 24.11.2007 to 29.12.2007                          | TEQIP Training Programme at NUS   |
| Netherlands       | 13.05.2013 to 19.05.2013                          | Geospatial World Forum  |
| Hongkong          | 20.11.2015 to 25.11.2015                          | International Conference on Soft Computing and Machine Intelligence (ISCMI-2015)                                      |
| Srilanka          | 11 <sup>th</sup> – 14 <sup>th</sup> December 2015 | ICSECM 2015, 6 <sup>th</sup> International Conference on Structural Engineering & Construction Management             |
| Republic of Korea | 17 <sup>th</sup> – 22 <sup>nd</sup> July 2017     | International conference on Maintenance and Rehabilitation of Constructed Infrastructure Facilities (MAIREINFRA 2017) |

**Tiruchirappalli  
30.07.2018**

**(Samson Mathew)**