

Bio-data

1. Name and Photograph

Dr. JAKKULA NATARAJU



2. Designation and complete address including email id.

Principal Scientist, Room 220, TES Division, CSIR-Central Road Research Institute,
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3. Areas of Interest

Traffic Engineering, Transportation Planning and Road Safety

4. Educational Qualification

- Dr.Engg in Civil Engineering from Kobe University, Japan, September 2009 with Japanese Government Scholarship (MONBUKAGAKUSHO) through MoHRD selection.
- M.E.in Transportation Engineering with First Class with Honours, University of Roorkee, March 1998, with GATE Scholarship
- B.Tech. in Civil Engineering with Distinction, Nagarjuna Univeristy, Bapatla Engineering College, March 1996

5. Professional Experience

CSIR- Central Road Research Institute (August 1999 to till date)

Dr.L.R.Kadiyali & Associates (May 1998 to July 1999)

6. Membership to Professional Bodies I

Institute of Urban Transport(India)

Indian Roads Congress (India)

7. Achievements

a. Honours and Awards

- Certificate of Merit Award from Institution of Engineers, India 2005-06 for research paper
- GATE Fellowship 1996.
- Japan Government Scholarship 2006-2009 (Monbukagakusho), for PhD.
- Certificate of Japanese Language Proficiency Test, level 3, December 2007.
- Cash award of 50,000 Yen for research paper in International Journal of Research, 2009

b. Research Projects

1. “Urban Road Traffic and Air Pollution in Major cities”, A report submitted to Centre for High Technology (CHT), Ministry of Petroleum GOI, July 2002 – As a Task Leader for Bangalore Studies and As a Team Member for other studies.
2. “Proposed Road Signage System for Flyovers in Delhi”, A report submitted to Transport, Department, Government of NCT Delhi, July, 2003 - As a Team Member.
3. “Road Safety Audit of NH-5 near Bhubaneswar and Visakhapatnam”, A report submitted to NHAI , 2004– As a Project Leader for Bhubaneswar section.
4. “Updation of Road User Cost Study Data”,a report submitted to MoRTH, As a Team Member (Dec 1999 - Jul 2001).
5. “Establishment of Permenent Counting Station on NH-8, at Manoharpur”, A report submitted to NHAI, As a Team Member (Jun 2000- Oct 2001).
6. Corridor Improvement Plan of NH-2 (Ashram – Badarpur Border), A report submitted to NHAI, As a Team Member(2002).
7. Safety Audit of Mumbai Pune Expressway, A report submitted to MSRDC, Mumbai, As a Team Member (Aug 2002 – Aug 2004).
8. Comprehensive Traffic and Transportation Studies of Surat (Client : Surat Muncipal Corporation, Surat) (Dec 2003 – Sept 2005) as a Team Member.

9. Traffic Management Plan for laying of sewer line (through open excavation) on Maharishi Raman Marg, New Delhi.(Client: MCD, Delhi). (Apr 2003 – Oct 2003) as a Team Member.
10. Feasibility Study for Construction of Pedestrian Subway across Roads around Gol Dak Khana, New Delhi . (client: MCD (Delhi) (Feb 2003 – July 2003) as a Team Member.
11. Safety Audit of NH-5 near Bhubaneswar and Visakhapatnam (Client: NHAI, Govt. of India.): Aug, 2003 - Mar, 2004 as a Team Leader
12. Transport Estimation and Demand Management: (c4) Development of Quick Response Techniques for Travel Demand Estimation for Small and Medium Sized Cities in India (CSIR Core Network Projects) (Jun 2002 – Mar 2006), 10th Five Year Plan Project, as a Task Leader
13. Congestion and Parking Problems for selected locations in Delhi (Client: Government of NCT of Delhi): April 2005 - March 2006 as a Member
14. Speed and Delay studies of Arterial Network of Delhi (Client: Government of NCT of Delhi): March 2005 - February 2006, as a Member
15. Road Safety Audit of Western Corridor from Gurgaon to Rajasthan Border of Gujarat (Client: Government of NCT of Delhi): March 2005 - February 2006 along with VIC Roads International, Australia as a Member
16. Comprehensive Traffic and Transportation Studies of Surat (Client : Surat Municipal Corporation, Surat) (Dec 2003 – Sept 2005) as a Task Leader
17. Modelling and Evaluation of Environmental Road Pricing considering Local Emissions of Road Transportation Network (Doctoral Dissertation Submitted to Kobe University, JAPAN), October2006- September 2009.
18. Comprehensive Mobility Plan for Ghaziabad City, Ghaziabad Development Authority, April 2010 to July 2011, as a Deputy Project Leader
19. Design of Rotary at Englishia Intersection, Varanasi, November 2010 to December 2010, as a Project Leader
20. Development of Road User Cost Models for High Speed Corridors (2007-2011), SIP-30, 11th Five Year Plan Project, as a Team Member

21. Indian Highway Capacity Manual (Indo - HCM) (2011) Work Package: Two Lane / Intermediate / Single Roads, ESC-0304, 12th Five Year Plan Project as a Work Package Leader
22. Development and Application of Technologies for Sustainable Transportation (2011)-Work package: Design of Advanced Public Transportation Information System using ITS Technologies, ESC-0106, 12th Five Year Plan Project as a Work Package Leader
23. Adequacy of Pedestrian Signals at Intersections, Inhouse Research Project as a Member (2010)
24. Evaluation of BRT Corridor Performance from Ambedkar Nagar to Moolchand (Sponsored by Transport Department by High Court directives), Sponsored by Transport Department, Delhi, 2012, as a Task Leader
25. *Consultancy Services for Conducting Road Safety Audit for PPP projects on DBFO basis (Package Nos: 7,9,10,11,12,13,14,32,33,34,35 & 36).Sponsored by National Highway Authority of India (NHAI), New Delhi as a Work Package Leader*
26. Traffic Management Plan for Twenty Selected Intersections of Allahabad (Sponsored by PWD, Allahabad), 2012-2013 as a Member
27. Road Safety Audit Training Imparted to CRAPHTS, February 2012 as a Member
28. Road Safety Audit Training Imparted to AECOM, May 2012 as a Member
29. Evaluation of Reflectivity of Sign Boards Installed at Kurali-Kiratpur Section of NH-21, 2011 as a Member
30. Assessment & Evaluation of Drawings for Type Approval for Production of HSRP for COP, a) M/S Real Mazon India Limited b) M/S Shivnet. c) M/S Toneja. d) M/S Link Point e) M/S F.T.A. Pvt Ltd. f) M/S Rose Metra , 2011-2012 as a member
31. Design of Rotary at Kanawani Intersection, Ghaziabad, GDA, March 2013 to June 2013, as a Project Leader
32. Assessment of the Need for Capacity Augmentation of Mumbra Bypass in Thane District, December 2013 to August 2014 as a Project Leader
33. Road Safety Audit of PVNR Expressway in Hyderabad, 2013 as a Member

34. Evaluation of Retroreflective sheets for PWD's Delhi (**Around 15 projects**) as a project Leader
35. Development of Traffic Circulation Plan for Achieving Signal Free Movement at Mohan Nagar Intersection, Ghaziabad, Uttar Pradesh as a project leader
36. Intersection Improvement Plans for Four Intersections in Meerut City, Uttar Pradesh
37. Road Safety Audit Training Program to AECOM as a Member
38. Road Safety Audit Training to PWD Engineers, Tamilnadu as a Member
39. Road Safety Audit of Sambalpur Rourkela Section SH-10 (Ongoing) as a Project Leader
40. Road Safety Audit of different Sections in Odisha State (On Going) as a Member
41. Road Safety Audit of Eastern and Western Corridor of Mumbai as a Member

c. Research Publications

Journal papers.

Authors, (year), Title of the paper, name of the journal, volume number, issue number, page number (or DOI)

1. T.S.Reddy, S.A.Jalihah, A.N.Ramalingiah and J.Nataraju (2002), "Assessment of the Accuracy of Automatic Counters under Mixed Traffic Conditions", Indian Journal of Transport Management, Jan-March 2002, Quarterly, pp 71-87.
2. S.A.Jalihah, T.S.Reddy and J.Nataraju," Evaluation of Automatic Traffic Counters under Mixed Traffic Conditions", Institution of Engineers Journal, Vol 86, November 2005, pp 96-102.
3. T.S. Reddy, Santosh Jalihah and J. Nataraju. "Traffic Management Plan for a Commercial Centre of Delhi "Indian Highways, Volume 34, No.4, April 2006, PP37-50. Journal of Indian Roads Congress.
4. K.Ravinder, S.Velmurugan , J.Nataraju and S.Gangopadhyay, "Development of Quick Response Techniques (QRT) for Travel Demand Estimation of Small and Medium sized cities in India", IUT Journal, vol.7 No.2, 2008,December 2008, pp18-29.
5. Yasuo Asakura and Nataraju Jakkula (2009),"Modeling of Road Pricing considering Local Emissions of Road Transportation Network", International Journal of ITS Research, Vol.7, No.1, June 2009, pp 67-75

6. Errampalli, M., Velmurugan, S., Ravinder, K., Nataraju, J.(2011) ," Development of Free Speed Equations for Assessment of Road User Cost on High Speed Multi-Lane Carriageways of India", Journal of Current Science,(SCI Journal) ISSN 0011-3891, Volume 100 (9), pp 1362-1372.
7. Velmurugan. S, Madhu E., Nataraju. J., and Ravinder K., (2012), "Development of congestion cost equations for multilane highways in India", Journal of Transportation Research Record - (IF- 0.36), ISSN: 0361-1981 Issue Number: 2317 Publisher: Transportation Research Board; pp 121 -130, December 2012
- 8.

conference papers

Authors, (year), Title of the paper, name of the conference, volume number (if any), issue number (if any), place of the conference, page number.

1. Santosh A Jalihal, S Velmurugan, J.Nataraju, and T.S.Reddy (2004), “ The Impact of Traffic on Air Pollution in Major Cities of India”, A paper presented and published in the proceedings of the International conference on Transportation system Planning and Operation, IIT Chennai (pp 239-249), February, 2004.
2. Reddy T.S., Velmurugan S. and Nataraju J(2005). “Traffic Management plan for a Suburban Traffic Corridor in Delhi”, Proceeding of International Conference on Structural and Road Transportation Engineering, START-2005, I.I.T.Kharagpur, India, January 3-5, 2005,pp716-724.
3. Santosh A. Jalihal, T.S.Reddy and J. Nataraju (2005) “Relevance of Road Safety Audit in India”, Proceeding of International Conference on Structural and Road Transportation Engineering, START-2005, I.I.T.Kharagpur, India, January 3-5, 2005,pp 860-872.
4. J.Nataraju, and T.S. Reddy (2001), “Speed-Flow relationships of an Urban Road”, National Seminar on Challenges for Road Transport in 21st Century leading to Fuel Economy”, TIET, Patiala, 23-24 Feb, 2001.
5. J.Nataraju, and T.S.Reddy (2002), “Coordinated Signal System for a Stretch of Road”, Proceedings of National Seminar on Road Transportation in India : Emerging Techniques”, ROTRAN 2002, I.I.T. Kharagpur, Vol II,pp 5.79-5.88.
6. Santosh A. Jalihal, T.S.Reddy and J. Nataraju “Relevance of Road Safety Audit in India”, Proceeding of International Conference on Structural and Road Transportation Engineering, START-2005, I.I.T.Kharagpur, India, (pp 860-872), January 3-5, 2005.
7. Nataraju JAKKULA,” Review of Environmental Road Pricing”, presented in a Workshop organized at Kobe University, Kobe, Japan, 21st December 2007.
8. Nataraju Jakkula (2008),“Optimum Tolls considering Local emissions for selected Routes of Road Transportation Network”, CD-ROM proceedings of 7th ITS Symposium , Tokyo, December 4-5th, 2008.
9. Nataraju Jakkula and Yasuo Asakura (2009),“Environmental Road Pricing considering Local Traffic Emissions of Road Transportation Network”, KU-US joint seminar, Kumamoto University, Japan, February 13th 2009.

10. Nataraju Jakkula and Yasuo Asakura (2009), "Accuracy of Optimum Road Pricing considering Local Emissions of Road Traffic Network", 12th IFAC Symposium on Control in Transportation Systems, Los Angeles, September 2-4th, 2009.
11. Nataraju Jakkula (2009), "Comparison of Environmental Road Pricing using different Emission Factors", 11th JSCE International Symposium, Tokyo, September 11th, 2009, pp 205-208.
12. Nataraju Jakkula and Yasuo Asakura (2009), "Comparison of Road Pricing of Optimum and Descriptive Approaches considering Local Emissions of Road Transportation Network", Eastern Asia Society for Transportation Studies conference, Indonesia, November 16-19th, 2009.
13. Jakkula Nataraju, Kayitha Ravinder, Madhu Errampalli and S.Velmurugan "Speed And Delays Of The Arterial Road Network Of Delhi", proceedings of CISTUP conference held in Bangalore, October 18-22, 2010.
14. Nataraju Jakkula and Velmurugan S (2012), "Traffic Characteristics and Problems of Fast Growing Cities: A Case Study of Ghaziabad City", December 2012, TPMDC, International Conference, IIT Mumbai.
15. Ravinder Kayitha and Nataraju Jakkula (2013), " Road Safety Audit at Construction Stage", International Conference on Civil Engineering "ISPAC- 2013", ITM University, Gurgaon, 4-5th March 2013
16. Nataraju JAKKULA, Velmurugan SENATHIPATHI, Ravinder KAYITHA, Madhu ERRAMPALLI and Subhamay GANGOPADHYAY (2013), " Evaluation of Bus Rapid Transit System Corridor Performance in India", EASTS International Conference, Taipei Taiwan, 9-12 September 2013
17. Ravinder Kayitha and Nataraju Jakkula (2013), " Road Safety Audit of National Highways at construction Stage in India", WCTR International Conference, Rio, Brazil, 15-18 July 2013
18. Ravinder Kayitha and Nataraju Jakkula (2013), "*Road Safety Audit at Pre-opening Stage of National Highways in India: A Case Study*", RSS 2013 , ROME, 23-25, October 2013
19. Ch.Ravi Sekhar, J.Nataraju, S.Velmurugan, Pradeep Kumar, and Subhamay Gangopadhyay, K.Sitaramanjaneyulu (2014), " Free Flow Speed Analysis of Two Lane Inter Urban Highways", 11th TPMDC International Conference, 10-12 December 2014, IIT MUmbai.

20. Nimit Raval, Jakkula Nataraju, Errampalli Madhu, Pankaj Prajapati (2015), " The Methodology Developed in Estimation of Commuter Satisfaction Level for Evaluation of ITS Based Public Transport System in Indian city", RATE2015, Surat, July 2015