

1. **Name :** **Dr. CHALUMURI RAVI SEKHAR**
2. **Designation:** Senior Principal Scientist (Scientist F)
3. **Division:** Transportation Planning and Environment Division  
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4. **Areas of Interest:** Traffic Engineering and Transportation Planning

**5. Educational Qualification:**

Sl.No	Name of Degree	University/ Institute	Year	Class	Specialisation
1	Ph.D	Kobe University, Kobe, Japan	2008	A Grade for all subjects of course work (A: 80-100)	Transportation Engineering Title of Doctoral Thesis: Measuring Travel Time Reliability of Road Transportation System
2	M.E	Indian Institute of Technology, Roorkee, Roorkee	1999	First Class with Honours	Transportation Engineering
3	B.Tech	Jawaharlal Nehru Technology University (JNTU), Hyderabad , A.P	1997	First Class with Distinction	Civil Engineering

**6. Professional Experience:**

Sr. No.	Grade / Post	From	To	Lab./Instt.
1	Senior Principal Scientist/ <b>Scientist-F</b>	October 2016	Till Date	Central Road Research Institute, New Delhi
2	Principal Scientist/ <b>Scientist E II</b>	October 2012	October 2016	Central Road Research Institute, New Delhi <b>Merit Promotion</b>
3	Senior Scientist/ <b>Scientist E I</b>	October 2009	October 2012	Central Road Research Institute, New Delhi <b>Merit Promotion</b>
4	Scientist/ <b>Scientist C</b>	October 2005	October 2009	Central Road Research Institute, New Delhi
5	Junior Scientist/ <b>Scientist B</b>	October 2001	October 2005	Central Road Research Institute, New Delhi
6	Sr. Highway <b>Design Engineer</b>	March 2000	October 2001	Dalal Consultants and Engineers Limited, New Delhi
7	Highway Engineer	April 1999	February 2000	SPAN Consultancy Private Limited, New Delhi

## 7. Membership to Professional Bodies:

- Member of East Asia Society for Transportation Studies (EASTS)
- Life Member of Indian Road Congress (IRC)
- Life Time Member of Institute of Urban Transport (IUT)

## 8. Achievements:

### a. Honours and Awards:

- Received **Construction Industry Development Council (CIDC)** achievement award 2017 in the category of Scientist on 7th March 2017.
- Received **IRC Pt. Jawaharlal Nehru Birth Centenary Award** for the Year 2014. This award was received for outstanding achievements for the period between 31.5.2010 and 31.5.2015
- Received **Best Scientist Award for the Year 2010**, from CSIR-CRRI
- CSIR- Empower Project is evaluated as “A” grade project
- Received Award for the Best In-House Project " Evaluation of Operation efficiency of highway network using Travel Time Reliability Measures"
- **Japan Government Scholarship** for carrying out Ph.D work (Apr 2005 to Sep 2008)
- Qualified in PhD entrance examination conducted by Kobe University, Japan, 2005. Awarded Ph D in the year 2008.
- Research Work Selected **for Inoue Foundation for Science (IFS)**, Japan partial support for (1, 50,000 Japan Yens, Approximately 60,000 Indian Rupees) young researchers assistance.
- **Best Performance Award** from M/s Dalal Consultants and Engineers Limited, 2001

### b. Research Projects(41Projects)

#### i. R&D Projects

- Development of Trip Generation Manual for Indian Cities- Project Leader
- Development of Automatic Vehicle Counting and Classifications software using Deep Learning Techniques- Project Leader
- Development of procedures to study the impact of mass housing project on environment and provide viable solution, WP-7 of Mass housing Scheme, CSIR Mission Mode Project (Task Leader)
- Evaluation of Economic Loss Due to Idling of Vehicles at Signalised Intersection and Mitigation Measures, Network Project, CSIR 12th Five Year Plan Project, Work Package Leader, CSIR India and Planning Commission, GOI, New Delhi- Champion of the Project (from April 2014 onwards)
- Development and Application of Technologies for Sustainable Transportation, Network Project, CSIR 12th Five Year Plan Project ,CSIR India and Planning Commission, GOI, New Delhi– Work Package Leader
- Development of Indo - Highway Capacity Manual , Network Project, CSIR 12th Five Year Plan Project, CSIR India and Planning Commission, GOI, New Delhi- Work Package Leader

- Development of Maintenance Management System for High Speed Road Corridors, Supra Institutional Project CSIR and Planning Commission, 11th Five Year Plan Project, CSIR India and Planning Commission, GOI, New Delhi - Team Member
- Travel Time Related Performance Measures for Evaluation of Sustainable Road Transportation System(2010), CSIR-EMOWER Scheme Project- Principal Investigator
- Evaluation of Operational Efficiency of Highway Network Using Travel Time Reliability Measures(2009), In House research project, CRRI, New Delhi–Project leader
- Measuring Travel Time Reliability of Road Network and Transportation System (2008), Doctoral Dissertation, Kobe University, Kobe, Japan
- Transport Estimation and Demand Management (2005) –10<sup>th</sup> Five Year Plan Project, CSIR India and Planning Commission, GOI, New Delhi -Task Leader
- Experimental Determination of Multilayer Perceptron for Mode Choice Analysis (2003) -In-house Research Project, CRRI, New Delhi -Project Leader
- Neuro Computing in Mode Choice Analysis in Urban Area (2003) - In House research project, CRRI, New Delhi-Team Member

## **ii. Sponsored Research Projects**

- Performance Evaluation of Bhopal Bus Rapid Transport System, Sponsored by Bhopal City Link Limited (BCLL) - Project Leader
- Comprehensive Mobility Plan (CMP) for Ahmedabad City Sponsored by Ahmedabad Police (Traffic) - Project Leader
- Transportation and Traffic Study at Naval Base, Karwar, sponsored by Indian Navy, Ministry of Defence, Government of India- Project Member
- Feasibility Study of Sasoma to Saserala (2016), Sponsored by 16<sup>th</sup> BRTF-Project Leader
- Traffic Study for Feasibility of Mineral Transportation in JodaBarbil, Odisha (2014), M/s Thriveni Consultancy Services, JodaBarbil-Project Leader
- Traffic Studies for Junction Improvement of Major Road Corridor in Vadodara (2011), Vadodara Municipal Corporation (VMC)-Project Leader
- Traffic Studies for Junction Improvement of Major Road Corridor in Ahmedabad(2011), Ahmedabad Municipal Corporation (AMC)- Co-Project Leader
- Evaluating Bus Rapid Transit (BRT) Corridor Performance from Ambedkar Nagar to MoolChand, Delhi (2011), Transport Department, Government of National Territory of Delhi (GNCTD)- Principal Investigator
- Evaluation Study on Use of On-Site Visualization Method for Monitoring of Safety Management at Construction Site (2010)- Sponsored by JAICA, Japan-Project Leader

- Development of GIS Based National Highway Information System(2010) - Ongoing project sponsored by Ministry of Road Transportation & Highways (MoRT&H)– Team member
- Environmental Impact Assessment (EIA) for Preparation of Detailed Project report for third phase of Delhi-Metro Rail Corporation (2010)- Sponsored by Delhi Metro Rail Corporation (DMRC), New Delhi-Team Member
- Country Report Preparation on Road Project Appraisal Process in India (2005) Sponsored by TRL,UK-Team Member
- Study of Impact of New High Rise Buildings on Road Traffic at Tardeo, Mumbai (2005) - Sponsored by S.D Corporation Private Limited, Mumbai-Team Member
- District Rural Road Plan and Core Network of Rural Roads for District of Bihar and Jharkhand State (2005)– Sponsored by REO, Govt. of Bihar and Jharkhand, India- Team Member
- Investigation Regarding Realignment of Hill Top Road at Simhachalam Hill (2004) -Sponsored by Visakhapatnam Urban Development Authority (VUDA), Visakhapatnam, India -Team Member
- Traffic Management and Design of Pavements of Connecting Roads of TISCO Works to NHs / SHs (2004) - Sponsored by Tata SteelJamshedpur,India- As a Team Member
- Design of Road Signage System for Flyovers in Delhi (2003)- Sponsored by, Government of NCT Delhi, India-Team Member
- Urban Road Traffic and Air Pollution (2002)- Sponsored by Ministry of Petroleum and Natural Gas (MoPNG), GOI, New Delhi,India - Team Member
- Survey, Investigation and detailed project preparation for four corridors of State Highway in MP State: A)Bhopal-Raisen-Sagar( Km183) B)Hoshangabad-Piparia-Pachmari(Km123) C) Jabalpur-Narshingpur-Piparia(Km140) D)Sagar-Damoh-Jabalpur( km176 ).
- Consultancy services for Preparation of Feasibility and detailed design, project preparation including cost estimate and tender documents for Chandigarh – Ludhiana Highway including samrala, Manpur and Morinda Bypass on SH-18 in Punjab.
- Feasibility study and Detail Engineering of NH2, Varanasi Aurangabad under World Bank funded in Joint venture with COWI.
- Benefit Monitory and Evaluation (BME) of SH 5a.
- Feasibility Study and Detailed Engineering of NH7 (North South Corridor).
- Feasibility Study and Traffic Management Through Flyover in Jaipur City.
- Comprehensive Traffic Study at Shahdra for Delhi Metro Rail Corporation (DMRC)

c. **Research Publications:Total Papers: 86**  
**Journals:53and Conferences: 33**

**SCI Rate Journal (Total:26 Nos)**

1. Ch. Ravi Sekhar, Niraj Sharma, MuktiAdvani and Ravindra Kumar (2021) Quantification of reduction of air pollution due to bypassing traffic: a case study of Delhi, Journal of Ciurrent Science ( Accepted**SCI IF 0.725**)
2. Satish Chandra, **Ch. Ravi Sekhar** and Md. Ruhina Begum (2020). Optimum Design of Speed Hump based on Empirical Data, Journal of Proceedings of the Institution of Civil Engineers, Transport (Accepted**SCI IF 0.79**)
3. A Kathuria, M Parida, **Ch.Ravi Sekhar**“Estimating Corridor Capacity of a Bus Rapid Transit System: Concept of Failure Rate Revisited”, Journal of Transportation Engineering, Part A: Systems,Vol.146 (11)(**SCI IF: 0.64**)
4. A Kathuria, **Ch.Ravi Sekhar**, M Parida (2020) Examining failure rate dynamics to estimate capacity of bus rapid transit system corridor,Proceedings of the Institution of Civil Engineers-Transport, Vol.173(5),(**SCI IF 0.79**)
5. Kathuria, A., Parida, M., &**Chalumuri, R. S.** (2020). Travel-Time Variability Analysis of Bus Rapid Transit System Using GPS Data. Journal of Transportation Engineering, Part A: Systems, 146(6), 05020003.(**SCI IF: 0.64**)
6. Kumar, P. P., **Sekhar, C. R.**, &Parida, M. (2020). Identification of neighborhood typology for potential transit-oriented development. Transportation Research Part D: Transport and Environment, 78, 102186.(**SCI IF: 4.0512**)
7. Minal, Gajrani, K. K., **Sekhar, C. R.**, & Tare, V. (2019). Impact of road rationing on modal shift and transport sustainability in Delhi, India. In Proceedings of the Institution of Civil Engineers-Transport (pp. 1-10). Thomas Telford Ltd.(**SCI IF 0.79**)
8. Kathuria, A., Rajendran, B. G., Parida, M., &Sekhar, C. R. (2019). Examining Walk Access to BRT Stations: A Case Study of Ahmedabad BRTs. Institute of Transportation Engineers. ITE Journal, 89(5), 43-49(**SCI IF:0.155**)
9. Bharti, A. K., **Sekhar, C. R.**, & Chandra, S. (2018). Travel time reliability as a level of service measure for urban and inter-urban corridors in India. CURRENT SCIENCE, 114(9), 1913.(**SCI IF 0.99**)
10. Bharti, A. K., **Sekhar, C. R.**, & Chandra, S. (2018). Modeling travel time of car with varying demand on an urban midblock section. Journal of Intelligent Transportation Systems, 22(2), 99-105.(**SCI IF 1.769**)
11. **Ch.Ravi Sekhar**, RejithaNath and MadhuErrampalli “ Development and Evaluation of an Integrated Transportation System: A Case Study of Delhi, Journal of Proceedings of theInstitution of Civil Engineers, Transport( **SCI IF 0.402**)
12. H Singh, A Kathuria, **Ch Ravi Sekhar** and M Parida “Estimating capacity of hybrid bus rapid transit corridor.Journal of Current Science, Vol.113 No.8( **SCI IF 0.99**)
13. A Kathuria, M Parida and Ch. Sekhar “Comparative evaluation of bus rapid transit routes using super efficiency data envelopment analysis”, Journal of Current Science , Vol.113 No.8( **SCI IF 0.99**)
14. Ankit Kathuria, M. Parida and **Ch. Ravi Sekhar** “Route performance evaluation of a closed bus rapid transit system using GPS data” Journal of Current Science, VOL. 112, 2017 ( **SCI IF 0.967**)

15. Minal, S. and **Ravi Sekhar, Ch.** (2016) "Commuter's sensitivity in mode choice: An empirical study of New Delhi". Journal of Transport Geography, 57, 207–217, <http://dx.doi.org/10.1016/j.jtrangeo.2016.11.00> ( **SCI IF: 2.09**)
16. A Kathuria, M Parida, **Ravi Sekhar,Ch.**, Pathak,M. (2016) "Examining Bus Lost Time Dynamics for a Bus Rapid Transit Station" Journal of Public Transportation, 19 ( 2),168-192 ( **SCI IF 0.710**)
17. ChitoshiIzumia, Shinichi Akutagawab, JitendraTyagic, Reiko Abea, **Ch. Ravi Sekhar**, AyakoKusuie (2014)Application of a new monitoring scheme "On Site Visualization" for Safety management on Delhi Metro project, Tunneling and Underground Space Technology, Volume 44, Pages 130–147, (**SCI IF:1.49**)
18. C Izumi, S Akutagawa, **Ch.Ravi Sekhar**, R Kataria, R Abe, H Haga(2014) On-site visualization monitoring for long span bridge on Delhi Metro Project, Journal of Current Science, IndiaVol. 106 (9) pp. 1280-1290, (**SCI IF:0.937**)
19. Gautam Raj Godavarthi, **Ravi Sekhar Chalumuri**, SenathipathiVelmurugan (2014) Measuring Performance of Bus Rapid Transit Corridor based on Volume by Capacity Ratio, Journal of Transportation Engineering, (ASCE), USA Vol.140(10), pp. 04014049-1-12(**SCI IF:0.537**)
20. **Ch.Ravi Sekhar**, E.Madhu, B.Kanagadurai and S.Gangopadhyay (2013), Analysis of Travel Time Reliability of an Urban Corridor using Micro Simulation Techniques, Journal of Current Science, India Vol. 105 (3), pp.319-329 (**SCI IF:0.937**)
21. Satish Chandra; **Chalumuri Ravi Sekhar**; Anish Kumar Bharti; and B. Kangadurai (2013) Relationship between Pavement Roughness and Distress Parameters for Indian Highways, Journal of Transportation Engineering, (ASCE), USA Vol 139(5), pp.467-475, (**SCI IF:0.537**)
22. R Abe, **Ch.Ravi Sekhar**, Y Sasaki, S KR, M Shinji (2013), Measuring and monitoring construction dust using mobile phone camera , Journal of Current Science,India, Vol. 104 (7), 817-821, (**SCI IF:0.937**)
23. **Chalumuri Ravi Sekhar**, Takamasa Iryo and YasuoAsakura (2012) Analysis of travel-time variation over multiple sections of Hanshin expressway in Japan, Journal of Current Science, India Vol. 102(11) pp.1527-1533, (**SCI IF:0.937**)
24. Reiko Abe, **Ch. Ravi Sekhar**, S. Sasaki, K. R. Shivananda and M. Shinji Reiko Abe, Ch. Ravi Sekhar, S. Sasaki, K. R. Shivananda and M. Shinji (2013) Measuring and monitoring construction dust using mobile phone cameras Current Science, Vol. 104, No. 7, (**SCI IF:0.937**)
25. AkitoHigatani , Toshihiko Kitazawa , Jun Tanabe , YoshikiSuga , **Ravi Sekhar**&YasuoAsakura (2009) Empirical Analysis of Travel Time Reliability Measures in Hanshin Expressway Network, Journal of Intelligent Transportation Systems, 13:1, 28-38, (**SCI IF:1.37**)
26. Kirti Bhandari, **Ravi Sekhar.Ch.**, Rao, A.M., and Gangopadhyay. S "Application of Artificial Neural Network for CNG Exhaust Emission Modelling" Journal of Scientific & Industrial Research (JSIR) Vol.65 No.12, 2006, (**SCI IF:0.50**)

**Reviewed National and International Journals : (Total :27)**

27. PATNALA, P. K., PARIDA, M., & **CHALUMURI, R. S.** (2020). A Decision Framework for Defining TOD to an Indian city, *Journal of Asian Transport Studies*, Vol.(6) 384-396.
28. Nischal Gupta and **Ravi Sekhar, Ch.** (2019). "Experimental Study for Estimation of Capacity of Exclusive Motor Cycle Lane in India" *Journal of the Indian Roads Congress*, 80(3),25-31
29. Sarkar, P. K., & **Chalumuri, R. S.** (2019). Smart Transportation System Citing Best Practices and its Relevance in Indian Cities. *Indian Highways*, 47(2).
30. Kathuria, A., Parida, M., & **Sekhar, C. R.** (2019). A Review of Service Reliability Measures for Public Transportation Systems. *International Journal of Intelligent Transportation Systems Research*, 1-13.
31. **Ravi Sekhar Ch,** Velmurugan S, Satish Chandra, Balakrishna K and Nataraju J ( 2017) "Capacity Models and Adjustment Factors for Interurban Bidirectional Roads", *Journal of the Indian Roads Congress*, Volume : 78 - 2 , July – September, pp.59-70
32. Ankit Kathuria, Manoranjan Parida, **Ch. Ravi Sekhar** "Capacity Estimation of a Closed Bus Rapid Transit System Using Empirical Approach", *Advanced Science Letter*
33. **Ravi Sekhar, Ch.**, Minal, S., Madhu, E (2016). "Multimodal Choice Modeling Using Random Forest Decision Trees". *International Journal for Traffic & Transport Engineering*. 6(3), 356-367
34. Kathuria, A., Parida, M., Ravi Sekhar, Ch., Sharma, A (2016) "A Review of Bus Rapid Transit Implementation in India". *Cogent Engineering* 3(1)
35. Md Rashid Khan, **Ravi Sekhar Chalumuri** and Velmurugan Senapathi (2015), Modelling of the Gap Phenomena at U-turn Provisions on the Median Openings of Inter-Urban Highway Corridors, *Journal of Eastern Asia society for Transportation Studies*, Vol.11, pp.1842-1855, doi: <http://doi.org/10.11175/easts.11.1842>
36. A Sharma, M Parida, **Ch. Ravi Sekhar**, A Kathuria (2015), Capacity Analysis of Bhopal BRTS Using Empirical And Simulation Model, *Journal of The Eastern Asia Society For Transportation Studies*, Vol. 11 , 1575-1593, DOI: <http://doi.org/10.11175/easts.11.1575>
37. **Ravi Sekhar Ch**, Apoorba Bibeka and S. Velmurugan (2015) "Traffic Signal Optimisation for an Arterial Road in Delhi, *Journal of Urban Transport*, Vol. 14. No1, pp.1-10
38. Errampalli Madhu, **Ch. Ravi Sekhar**, Sarada Pulugurta, Saurabh Srivastwa and Irshad Mohiuddin (2015) "Performance Evaluation of Urban Road Network in Delhi Considering Travel Speed" *Journal of Urban Transport*, Vol. 14. No1, pp.29-38
39. **Ravi Sekhar Chalumuri**, Asakura Yasuo (2014), Modelling travel time distribution under various uncertainties on Hanshin expressway of Japan, *European Transport Research Review*, Vol. 6 (1), 85-92, 2014
40. Anish Kumar Bharti, Satish Chandra and **Chalumuri Ravi Sekhar** (2014), Relation Between Pavement Serviceability and Roughness for Flexible Pavement, *Indian Highways*, India Volume 42(5)

41. P.V.PradeepKumar,**Ch. Ravisekhar**, Anil Singh,Niraj Sharma(2014) Understanding variability of fuel consumption in vehicles Trade Magazine "Projects streams" Vol 01,issue 01 <http://www.projectsstreams.com>
42. Minal and **Ravi Sekhar, Ch** (2014) Mode Choice Analysis: The Data, The Models and Future a Head International Journal of Traffic for Transportation Engineering, Vol 4(3),
43. **Ch. Ravi Sekhar**,ErrampalliMadhu, SaradaPulugurta, SaurabhSrivastwa and IrshadMohiuddin "Performance Evaluation of Urban Road Network in Delhi Considering Travel Speed" Journal of IUT, India ( Accepted for Publication)
44. Minal and **Ch.Ravi Sekhar** (2014) Modeling Mode Choice Behaviour And Estimating Value Of Travel Time Of Commuters In Delhi, Journal of Urban Transport, Vol.13(1),pp.67-77
45. **Ch.Ravi Sekhar**,AnanyaBijay, N.S.Divia(2013) Travel Time Reliability based Traffic Assignment Model for an Urban Road Network, Journal of Urban Transport, Vol12(1)pp.45-53
46. P.V. Pradeep Kumar, Anil Singh, Niraj Sharma, **Ch. Ravi Sekhar**, Evaluation of variability in on-road vehicle fuel consumption under controlled conditions, International Journal of Emerging Technology and Advanced Engineering, Vol.3
47. NeelimaChakrabarty, **Ch.Ravi Sekhar**, ErrampalliMadhu, Archana Rajesh (2013), Research on Psychomotor Impairment and Need for Research Based Simulator in India, International Journal of Social Sciences Tomorrow, Vol. 2 No. 4
48. **Dr.Ch.Ravisekhar**,Dr.B.K.Durai,Dr.E.Madhu and Dr.S.Gamgopadhyay, "Genetic Algorithm Based Neural Network Model for Mode Choice Analysis" Urban Transport Journal, Vol. 10 No.1 August 2011.
49. Dr. S. Gangopadyay**Dr. Ch. Ravi Sekhar** Dr. B. KanagaDurai "Travel Time Reliability Measurement for an Urban Corridor - A Case Study", Indian Highways, May 2010
50. KanikaKalra, P.K.Sarkar and **Ravi Sekhar.Ch** (2009) "Analysis of Mode choice Behaviour for access trip for public transport system using ANN", Highway Research Journal, Vol.2
51. **Ravi Sekhar.Ch**,Kitazawa,T.,Tanabe,J.,Suga,Y and Asakura,Y(2007) "Examining Travel Time Reliability on Hanshin Expressway Network" Journal of Eastern Asia Society for Transportation Society(EAST), Vol. 7,pp. 2274-2288
52. **Ravi Sekhar.Ch** and Asakura.,Y(2007) "Measuring Travel Time Reliability of Transportation System", Indian Highways , pp.61-72
53. Parida.M., Satish Chandra and **Ravi Sekhar.Ch**(2002) "Artificial Neural Network Based Mode Choice Analysis" Highway Research Bulletin No.67, IRC pp.197-216



### **Conference Publications ( National and International: Total: 33)**

1. Nischal Gupta, Ravi Sekhar Ch., and Ravi Shankar AU (2019) “ Speed and Headway Behaviour of Motorcycles on an Exclusive Motorcycle Lane”, 5th Conference of Transportation Research Group of India (CTRG) ,18th - 21st December, 2019
2. PhaniKumar,P., Ravi Sekhar,Ch., Parida,M. “Transit Oriented Development to for and in Delhi”, 5th Conference of Transportation Research Group of India (CTRG) ,18 th - 21st December, 2019.
3. NeelimaChakrabarty, Kamini Gupta, Ravisekhar Ch., Vikas Thakur (2019) “Distraction Pattern of Driver Using Eye Tracker on Indian Roads”, 5th Conference of Transportation Research Group of India (CTRG) ,18th - 21st December, 2019
4. U Bhatia, CR Sekhar, M Errampalli, E Madhu“Impact of Congestion Pricing on Mode Choice and Route Choice Behavior: Experimental Study of Delhi, India”,Transportation Research Board 97th Annual MeetingTransportation Research Board
5. A Kathuria, BG Rajendran, M Parida, CR Sekhar“Examining Walk Access to BRT Stations: A Case Study of Ahmedabad BRTS”Transportation Research Board 97th Annual MeetingTransportation Research Board
6. Anshuman Sharma, ManoranjanParida, Ch. Ravi Sekhar, and JayvantChoudhary“Assessing the impact of bus arrival rate on the bus lane capacity: A simulation based approach” 4th Conference of Transportation Research Group of India (CTRG)
7. Ravi Sekhar Chalumuri, RavinderKaitha, Purnima Parida, “Idling Delay Estimation at Signalized Intersections Using Input Output Flow”, World Conference on Transport Research - WCTR 2016 10-15 July 2016, Shanghai
8. R RejithaNath , Ravi Sekhar Chalumuri, and MadhuErrampalli “Evaluation of Policy Measures in View of Promoting Sustainable Transportation System” World Conference on Transport Research- WCTR 2016 10-15 July 2016, Shanghai
9. RejithaNath, Ravi Sekhar and E Madhu (2015),Development of Four Stage Travel Demand Model and Identification of Feeder Route for the NCT of Delhi, Eastern Asia Society for Transportation Studies (EASTS),(CDROM)
10. M.Parida, Anshuman Sharma and Ch.Ravi Sekhar BRTS (2015): A Sustainable Public Transport Option, 75th IRC IRC Souvenir
11. Ch.Ravi Sekhar J.Nataraju, S.Velmurugan, Pradeep Kumar &K.Sitaramanjaneyulu (2014) Free Flow Speed Analysis of Two Lane Inter Urban Highways,International conference on Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC), IIT Mumbai (CDROM)
12. Ch.Ravi Sekhar, Minal and E. Madhu(2014) Mode Choice Analysis Using Random Forrest Decision Trees, TPMDC IIT Mumbai (CDROM)
13. R RejithaNath, SaradaPulugurta, Ch.Ravi Sekhar, E.Madhu (2014), Development of integrated public transportation system through travel demand modelling, 2014, ASET conference Amity University(CDROM)
14. D. Sowjanya, D. Tahlyan, Ch. Ravi Sekhar (2014),Travel Demand Modelling for a Metropolitan City, International Conference on Recent Trends and Challenges in Civil Engineering MNNIT Allahabad, India(Online)
15. Ch.Ravi Sekhar, AnanyaBijaya, Divia N.S.(2012) “Reliability based Traffic Assignment Model for an Urban Road Network” CSIR-CRRI Diamond Jubilee Celebration on 16th July, 2012 at CRRI

16. Reiko Abe, Ch.Ravi Sekhar, B.K.Durai, S. Akutagawa, M.Shinji(2012) “Advanced Monitoring Techniques for Safety Management at Construction Sites”, CSIR-CRRI Diamond Jubilee Celebration on 16th July, 2012 at CSIR-CRRI
17. Reiko Abe, Ch.Ravi Sekhar, Shivananda K.R, Sasaki Y , Shinji M(2012) “Dust Measuring and Monitoring by using Mobile Phone at Construction Site: A Case Study of Bangalore Metro Rail Project” Accepted in World Tunnel Conference (WTC) , Bangkok
18. Ch.Ravi Sekhar, Aneesh R.G Dr.B.K.Durai, Dr.S.Lakshmi(2011) “Modeling Travel Time Distribution under uncertainties from Demand and Capacity of System: A Case Study of Urban Corridor”, Published in 1st Conference of Transportation Research Group of India (CTRG) ,Bangalore, India
19. Ch.Ravi Sekhar, B.K.Durai, and S.Gangopadhyay(2011) “ Use of Travel Time Reliability for measuring Traffic Congestion Variation, Published in 1st Conference of Transportation Research Group of India (CTRG) ,Bangalore, India
20. Ch.Ravi Sekhar, B.K.Durai and S. Gangopadhyay “ Examining Travel Time Distribution of urban and Rural Corridor of National Highways in India”, Journal of the Eastern Asia Society for Transportation Studies, Vol,9. 2011 (CD ROM)
21. Ch.Ravi Sekhar, MsKamini Gupta and B.KanagaDurai (2011) “Techniques for Monitoring Safety Management at Construction Site”, Proceedings of the International seminar on National Road Development Strategies and Road Safety on Improved Highways, School of Planning and Architecture, Indian Habitat Center, New Delhi.
22. Ch.Ravi Sekhar, B.KanagaDurai and S. Gangopadhyay(2010) “Modeling Travel Time Variation under Uncertainties: A Case Study of Urban Corridor in Delhi” , CiSTUP 2010 conference, Organised by IISc Bangalore,.
23. Ch.Ravi Sekhar, E. Madhu, B.K.Durai and S. Gangopadhyay “Applications of Neural Networks in Mode Choice Modelling for Second Order Metropolitan Cities of India, Eastern Asia Society for Transportation Studies(EASTS),Surabaya, Indonesia Vol.7, 2009
24. Velmurugan.S, Ravi Shekar.Ch and Gangopadhyay. S “ Site Impact Assessment on Traffic Due to New Residential Complex Development , International Conference on Pavement Engineering (ICPE-09), Civil Engineering Department, College of Engg. & Tech., B.P.U.T., Bhubaneswar- 14th - 15th February, 2009
25. Ravi Sekhar. Ch, Takamasa IRYO and Yasuo ASAKURA “Seemingly Unrelated Regression Model for analyzing Travel Time Variation: A Case study of Hanshin Expressway”, Proceedings of Infrastructure Review (CDROM), Japan Society of Civil Engineers, 37, paper 126, 2008.
26. Ravi Sekhar. Ch and Yasuo ASAKURA “Comparison of Travel Time Reliability Indices between Different Corridors of the Hanshin Expressway Network”, International Conference on Transportation Planning & Implementation Methodologies for Developing Countries (TPMDC 2008), Mumbai, India 2008
27. Dr.Ch.Ravi Sekhar, Dr. B.K Durai, A.Mohan Rao and K.Sitaramanjaneyulu “Toll System Design based on Travel Time Reliability for High Speed Corridors” , IRC PPP seminar, Indian Habitat Center, New Delhi, 28th &29th Aug 2009.

28. Ravi Sekhar.Ch and Asakura.Y. “Stochastic Response Surface Method for Modelling Travel Time Distribution Under Various Uncertainties” Proceedings of 3rd International Symposium on Transport Network Reliability (INSTR 2007), Delft University, The Hague, Netherlands, 2007.
29. Ravi Sekhar.Ch “Examining Travel Time Reliability: A Case Study of Hanshin Expressway Network” , Seminar on Transportation Theory, University of California, Berkley, USA, 14th December 2007 (<http://www.its.berkeley.edu/news/archive.html>)
30. Ravi Sekhar. Ch “Travel Time Estimation for Highway Networks”, Seminar at College of Engineering, University of Florida, Florida, 11th December 2007 ( University Florida Annual Report , 2007-2008, ([cms.ce.ufl.edu/publications/2007-2008%20CMS%20Annual%20Report.pdf](http://cms.ce.ufl.edu/publications/2007-2008%20CMS%20Annual%20Report.pdf)))
31. Durai, B.K., Ravi Sekhar. Ch., Kamini Gupta and Nanda.,P.K. “Evaluation of Rural Road Projects using Roads Economic Decision model”, Proceedings of National Seminar on Integrated Development of Rural and Arterial Road Network for Socio-Economic Growth”, IRC New Delhi, 15-16 December, 2003. PP. I-175 – I-186.
32. P.K. Sikdar and Ravi Sekhar.Ch “Analysis Of Artificial Neural Networks for Mode Choice Modeling”, International Conference On Structural and Road Transportation Engineering (SATRT), IIT Kharagpur, Kharagpur, India, 2005
33. Satish Chandra, M.Parida, and Ch.Ravi Sekhar(1999) “Neuro-Computing In Mode Choice Analysis” in South Asian Countries Conference on Challenges to Architects and Civil Engineers during twentieth century at Nepal Engineering College Katmandu (Nepal).

### **BOOKS and Chapters**

1. Ravi Sekhar Ch and AsakuraYasuo (2011) “Measuring Travel Time Reliability of Road Transportation System”Published by VDM Verlag, ISBN 10: 3639333888
2. IGNOU MBA course in Transport Management (Transport Policy) (2014)
  - UNIT 1 : Overview of Transport Policy
  - UNIT 2: Transport Policy Making Process in India
  - UNIT 3: Transport Policy in India
3. IGNOU MBA course in Transport Management (Transport Mode: Road) (2015)
  - UNIT 2 : Regulatory Structure
  - UNIT 3: Highway Economics and Finance
  - UNIT 4: Technology, Asset Base and Concerns
  - UNIT 5: Operation and Planning
  - UNIT 6: Managerial issues

#### **d. Any Other information:**

##### **i. Distinguished Research Fellowship:**

- Japan Government Scholarship from March 2005 to September 2008 to do doctoral course work at Kobe University, Kobe, Japan.
- Research work selected for Inoue Foundation for science (IFS), partial support for young researchers assistance (1,50,000 Japanese Yens Aprx.

60,000 Indian Rupees) for Participation of scientific Meeting International symposium on transport Network Reliability (INSTR), Delft University, Den Hague Nether Lands (2007)

- Research Work Selected for financial Assistance from Department of Science and Technology (DST) to attend 11th Eastern Asia Society for Transportation Studies (EASTS) , Organized at Cebu, Phillipines.

**ii. Sponsorship for International Research Interactions**

- Department of Civil Engineering Kobe University Japan, Invited to attend Workshop on On-Site Visualisation Techniques (OSV Method) for Metro Project. During this workshop presented the Project work Report on Evaluation of OSV and dust monitoring method on Bangalore Metro Project, 2015
- Invited by University of Florida and University of California to Present my Research Work, Sponsorship provided by Kobe University, Japan. ( 11th to 14th December 2007)

**iii. Dissertations Guided: M.Tech Students and PhD Students**

**A. M.Tech Dissertations: Completed: 27 Students**

1. Mr. Nitin Kumar Shukla, Study on Parking Demand, Analysis and Management, Samrat Ashok Technological Institute, Vidisha, August 2020
2. Gourav Chauhan, Trip Generation Modelling for Mass Housing Areas, Thapar Institute of Engineering & Technology (Patiala), July 2020
3. Ayushi Jain, Mode Choice Analysis of commuters in Mass housing areas, Parul Institute of Engineering & Technology, April 2020
4. Ms. Neena V.S., Determination and comparison of the effect of static and dynamic PCU in capacity analysis, Rajiv Gandhi Institute of Technology, Kottayam, Kerala July 2020
5. Nischal Gupta, Effect of Segregation of Motor Cycles on Traffic Flow Operations on Urban Arterial Roads, NIT Surathkal, Mangalore, May 2019
6. Md. Ruhina Begum Evaluating the different Vertical Traffic Calming measures on Urban Roads in New Delhi, JNTUH College of Engineering, Hyderabad, July 2018
7. Urvi Bhatia “ Studying the effect of Congestion Pricing on Mode Choice and Route Choice in NCT of Delhi, G.S, Institute of Technology and Science, Indore (M.P)- Co-Supervisor
8. Balakrishna Kuniyal, Development of Capacity Models for Inter-Urban Bidirectional Roads and Adjustment Factors, AcSIR-CRRI- Supervisor
9. Ashish Walia, Estimation Of Free Flow Speed And Its Influence On Capacity Of Two - Lane Roads, IIT Roorkee-Co-Supervisor
10. Harprinderjot Singh, Capacity Analysis of Hybrid BRTS Facility, IIT Roorkee-Co-Supervisor
11. Vishwajeet Kishore Verma, Bus Lane Capacity Estimation and Frequency Optimisation, NIT Surathkal Co-Supervisor

12. Krishna Kumar Gajrani, Evaluation of Sustainability of Road Transportation due to ODD-EVEN Policy in Delhi NCRS.G.S.I.T.S. Indore, M.PCo-Supervisor
13. Ms.RejithaNath "Development And Evaluation Of Integrated Transportation System Using Macroscopic Simulation", M.Tech Thesis, AcSIR Student, 2015 – Supervisor
14. Mr.Rashid Khan "Modelling of the Gap Phenomena at U-turn Provisions on the Median Openings of Inter-Urban Highway Corridors", M.Tech Thesis, AcSIR Student, 2015 – Supervisor
15. Mr.Anshuman Sharma: capacity analysis of bus rapid transit system, M.Tech Thesis, IIT Roorkee, 2015, Co-Supervisor
16. Mr. AsishWalia "Estimation of Free Flow Speed and its Influence on Capacity of Two - Lane Roads", IIT Roorkee, 2015, Co-Supervisor
17. Mr. Parin Patel, Effect of Roughness on Free Flow Speed on Intermediate Inter-Urban Highways ", Maharaja Sayajirao University Of Baroda, 2015, Co-Supervisor
18. Minal, Mode Choice Analysis Using Neur-Fuzzy Models, AcSIR Student, June 2014, Supervisor
19. Mr.Gautam Raj Godavarthi, Performance Evaluation of BRTS Corridors of Indian Cities, M.Tech Thesis, AcSIR Student, June 2013 - Co-Supervisor
20. PronoySomaraj, Estimation of Fuel Loss Due to Idling of Vehicles at Signalized Intersections of Ahmedabd Using VISSIM, M.Tech Thesis, NIT Suratkal, July 2013- Co-Supervisor
21. Y.Dinesh Kumar Reddy,Traffic Flow Analysis On Two Lane Roads, IIT Roorkee June 2014, Co-Supervisor
22. RushikeshBalsoAmrutamanvar: Assessment of Travel Time Reliability on Urban Arterials,SVNIT, Surat, June 2013, Co-Supervisor
23. Mr. Deval Mishra - Travel Demand Modelling Using Soft Computing Techniques , BITS Pilani, June 2013-Supervisor
24. MsAthira S.S Route Choice Behaviou and Value of Travel Time Reliability: A Case Study of Commuters in Urban Arterial Roads of Delhi, NIT Suratkal, June 2012- Co Supervisor
25. Divia N.S, Travel Time Reliability Based Route Choice Modelling For An Urban Road Network, NIT Suratkal, 2012- Co-Supervisor
26. Mr. Anish K. Bharati "Evaluation of Relationships between Pavement Distress Parameters" IIT Roorkee, 2011, Co-Supervisor
27. Mr. Aneesh "Modelling Travel Time Variation of Urban Corridors, Anna University, Chennai, June 2011

## B. Doctoral Students: Completed: 4on Going: 2

Sl.No	Name of the Candidate	PhD Thesis Topic	Year of PhD Award
1	Ankit Kathuria	Operational Analysis of Bus Rapid Transit System <b>IIT Roorkee- Co Supervisor</b>	April 2017
2	Anish K Bharati	Time Reliability for Performance Measurement of Urban Road Network <b>IIT Roorkee- Co Supervisor</b>	May 2018
3	Minal	Integrated Travel Demand Modeling for Sustainable Transportation <b>AcSIR-CRRI Supervisor</b>	Jan 2020
4	Phani Kumar	Exploring the Potential of Neighborhoods for Metro Rail Based Transit Oriented Development <b>IIT Roorkee- Co Supervisor</b>	Feb 2021
5	Gaurav Chauhan	Trip Generation Analysis Using Land Use Behaviour <b>AcSIR-CRRI Supervisor</b>	In Progress
6	Shiva Singh Chauhan	Analysing Two Wheeler Rider Behaviour <b>IIT Jammu-Co Supervisor</b>	In Progress

### iv. International Research Work Experience in Japan

- Three and half year working experience in Kobe university, Kobe Japan under the esteemed guidance of Prof. AsakuraYasuo for carrying out the PhD Research work During this period had exposure about the various ITS technologies used on Hanshin expressway network. Also analyzed Supersonic vehicular detectors data received from Hanshin Expressway Corporation Ltd, Japan.

### v. Teaching to AcSIR Students (Master and PhD Students)

- As a faculty actively involved in teaching of Statistical Methods in Engineering, Soft computing Techniques in Engineering and Optimisation Techniques for Master and PhD Students of AcSIR-CRRI
- As an in charge of Soft Computational Laboratory available at transportation planning division, CSIR-CRRI, various computational facilities provided and procured various analytical, modeling and simulation softwares to carryout doctoral and master dissertations in CSIR-CRRI

### vi. Keynote lecture delivered:

- Lecture delivered on Sustainable Integrated Public Transportation System: A Case Study of NCT Delhi, Sustainable Urban Transportation for Patna: A Curtain Raiser organized by NIT Patna, 28<sup>th</sup> September 2016
- Lecture delivered on Basic Statistics for Traffic Engineering, Certification for Road Safety Engineers and Auditors, Organised by Indian Academy of Highway Engineers in association with ARRB and IRF, 25<sup>th</sup> May 2016
- Lectures delivered on “Advanced GIS applications –Internet GIS/On line GIS” in Training on GIS Applications in Road and Transport Projects at CRRI
- Training rendered on “Techno-Economic Evaluation for Highway Projects”, and lecture delivered on “Neuro-Computing Techniques in Traffic Forecasting at CRRI
- Training rendered on “Techno-Economic Evaluation for Highway Projects”, and lecture delivered on “Roads Economic Decision Model (RED) for Economic Evaluation of Low Volume Roads”,.
- Lectures delivered on “Highway alignment and Surveys and Highway geometric Design “ in Foundation course on Training of Highway Engineers of IRCON at IRCON office Gurgaon.

**vii. Reviewer Role in International / National Journals and Conferences**

- Acted as reviewer for Journal of Intelligent Transport Systems, Technology, Planning, and Operation
- Acted as reviewer for Journal of IET Intelligent Transport Systems.
- Transportation Research Board (TRB) Annual Meeting, USA: Reviewed Four Research Papers.
- Journal of Indian Road Congress
- Journal of Indian National Science Academy:
- Conference of Transportation Research Group (CTRG), India: Reviewed Four Technical papers.
- Conference on Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC), IIT Bombay, India: Reviewed various Technical papers

**viii. Doctoral Thesis Reviewed:**

Reviewed doctoral thesis on "Development of Passenger Transport Information System using GIS and GPS", IIT Roorkee. Also acted as an external examiner during the Viva Voce examination held in September 2015

**ix. Member of H-8 Committee, IRC from Jan 2015 to Dec 2017 and Jan 2018 to March 2021**