

Detailed Curriculum Vitae: Dr. Shriniwas S. Arkatkar



BIO-DATA

- 1.Name in full : Dr. SHRINIWAS SHRIKANT ARKATKAR
- 2.Father's Name : S/O SHRIKANT KONDOPANT ARKATKAR
- 3.Date of Birth : 15th November 1977
- 4.Nationality : Indian
- 5.Religion : Hindu
- 6.Address for Correspondence: Dr. SHRINIWAS SHRIKANT ARKATKAR
Assistant Professor, Civil Engineering Department,
Sardar Vallabhbhai National Institute of Technology ,
Surat (SVNIT, Surat), Ichachanath-395007, INDIA.
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0261-2201879 (R), Mobile: +918140252777
- 7.Permanent Address : Dr. SHRINIWAS SHRIKANT ARKATKAR
50,Nadanvan Colony
Behind Laxminarayan Temple
Nagpur-440009, Maharashtra, INDIA.
- 8.Category : Open
- 9.Gender : Male
- 10.Languages known : English, Marathi, Gujarati and Hindi.
- 11.Field of Specialization : Transportation Engineering and Planning (Civil Engg.)
- 12.Ph.D. Thesis Title: Estimation of Passenger Car Unit of Vehicles in Heterogeneous
Traffic on Intercity Roads using Micro-Simulation.
13. Publications:
 - Books (Monograph) : 02
 - Book Chapters : 01
 - Journal Publications : 68
 - Journal Papers under review : 07
 - Journal Papers under preparation : 05
 - International Conferences : 84
 - National Conferences : 41

14. Academic Profile:

Qualification	Year of Passing	University/Institution	Class	Percentage of Marks	Subjects
Ph.D.	2010	IIT Madras	-	9.10 CGPA	Mentioned Below
M.Tech.	2001	V.R.C.E., Nagpur (now VNIT, Nagpur)	Distinction (University Topper)	75.40 %	Mentioned on pages 5 and 6
B.E. (Civil)	1999	V.R.C.E., Nagpur	Distinction	76.48 %	Mentioned On page 6
H.S.S.C.	1995	Shri Shivaji Science college, Nagpur	Distinction	89.17 %	Physics, Chemistry, Mathematics & Electronics
S.S.C.	1993	Somalwar High School, Nagpur	Distinction	87.85 %	All State Board Subjects(M.S.)

15. Experience:

Name of Employer with Address	Post Held	Period of Service	Nature of Service
Civil Engineering Department SVNIT, Surat, Gujarat.	Assistant Professor	6.12.2013 to ongoing	PG/ UG Teaching, Research and consultancy
Civil Engineering Department BITS Pilani, Rajasthan.	Assistant Professor	1.5.2010 to 5.12.2013	PG/ UG Teaching, Research and consultancy
Civil Engineering Department BITS Pilani, Rajasthan.	Lecturer	5.12.2009 to 30.4.2010 (5 months)	PG/ UG Teaching, Research and consultancy
Department of Civil Engineering, IIT Madras	HTRA, Scholar	03.1.2005 to 23.11.2009	Teaching Assistant
Nirma Institute of Technology Ahmedabad-382 481, Gujarat.	Lecturer	22/6/2001 to 27/12/2004 (3 years and 6 months)	Teaching and Research at UG level.

15 A. Responsibilities at SVNIT Surat (Civil Engineering Department):

- Faculty in charge-Traffic Engineering and Simulation Laboratory
- Coordinator for Electives, Seminar and Summer Training Projects
- Member, Purchase Committee for Transportation Engineering and Planning (TEP) section
- Member, PMGSY State Technical Agency (STA)
- Warden, Bhabha Bhavan (H-1 Hostel) since January 2014.
- Member, Hostel Disciplinary committee.
- Member, Scrutiny Committee, Student Council Elections

15 B. Responsibilities at BITS Pilani (Civil Engineering Department):

- Member, PMGSY Principal Technical Agency (PTA)
- Coordinator, ME Transportation Program
- Faculty in charge-Transportation Engineering Laboratory
- Convener, Departmental Research Committee (DRC)
- Study of the existing speed-breakers at BITS, Pilani Campus
- Faculty Member for Practice School Division

15 C. Sponsored Research Projects at SVNIT Surat

1. Principal Investigator of ‘Study of traffic flow on Expressways’ Funded by DST under ‘Fast Track’ scheme (Rs. 25.10 lakhs). **Status: ongoing**
2. Co-Principal Investigator of the project on “Supra Institutional National Project: Development of Indo-Highway Capacity Manual: under twelfth five-year plan to the CSIR - Central Road Research Institute (CRRI), New Delhi for the total outlay of Rs. 995.150 lakhs for the plan period of 2012-2017. **Status: Completed**

15 D. Sponsored Research Projects at BITS Pilani

1. Principal Investigator of ‘Determining Composite Index to Measure the Perceived Inadequacy of Public Transportation in Jaipur’, funded by BITS Pilani under ‘Research Initiation Grant’ scheme. (Rs. 2 lakhs) **Status: Completed**
2. Co-Principal Investigator of ‘Impact of PMGSY Roads on Accessibility in Rural Areas’ funded by National Rural Roads Development Agency (NRRDA), Ministry of Rural Development, Government of India. (Rs. 22.5 lakhs) **Status: Completed**

15 E. Research Guidance (PhD) at SVNIT Surat

1. Manish Jain: Study of Traffic Flow Characteristics on Two-lane Undivided Roads in India (in progress since January 2014)
2. Rupali Zope: Study of Sustainable Urban Transportation Systems in India (in progress since August 2014)
3. Pallav Kumar: Study of Traffic Flow Characteristics on Multilane Urban Roads in India (in progress since August 2014; Synopsis Submitted)
4. Avinash Choudhary: Study of Pedestrian Flow Characteristics on crosswalks at mid-block and intersections in India (in progress since January 2015: Pre-synopsis Stage)
5. Akhilesh Chepuri: Study of Travel Time Reliability on Bus Routes in selected Indian cities (in progress since August 2015)
6. Asir Khan: Study of Traffic Flow Characteristics at Roundabouts in India (in progress since August 2015)

7. Vasudevan N: Mode and activity preference behavior of heterogenous travelers in Indian metropolitan city, Surat. (Registered in January 2016)
8. S.S.V.V.N. Surya Narayana Raju: Application of vehicle trajectory data under heterogeneous traffic conditions for modelling vehicle behavior (Registered in January 2017)
9. Ninad Gore: Application of Wi-Fi/ Bluetooth sensors for capturing road-traffic patterns under heterogenous traffic conditions (Since January 2018)
10. Nandan Dawda: Study on integration of multi-modal transportation systems for Indian cities. (Since January 2018)

15 F. Research Guidance (M tech Dissertations) at SVNIT Surat

1. Jabeena M: Study On Mixed Traffic Flow Behaviour On Intercity Expressway: A Case Study Of Mahatma Gandhi Expressway (July 2014)
2. AmolWagh: Study on travel time reliability for a Metropolitan corridor: A Case Study (July 2014)
3. Asir Khan: Mixed Traffic Gap Acceptance Behavior At Four Legged Rotary Intersection (July 2014)
4. Prasad Hinukale: Study on Operating Speeds of Vehicles on Two-Lane Roads in Hilly Terrain,(July 2014)
5. AkhileshChepuri: Study of travel time variation and reliability for a fixed route A Case Study in Surat, (August 2015)
6. Rakesh Kulkarni Estimation of Saturation Flow at Signalized Intersections under Heterogeneous Traffic Conditions, (August 2015)
7. Nipjyoti Bharadwaj, Estimating Capacity and Level of Service Thresholds on Intercity Expressways: A case study of National Expressway-1 (August 2015)
8. K.A. Srinivasula Reddy: Evaluation of Safety by developing Proximal Safety Indicators at Un-Signalized Intersection using Micro Simulation (August 2015)
9. Jairam R “Real-Time Bus Travel Time Prediction Using GPS Based Historical Data”, Defended in (July 2016).
10. S.S.V.V.N. SURYA NARAYANA RAJU, “Calibration of Vehicle Following Models Using Trajectory Data Under Heterogeneous Traffic Conditions” Defended in (July 2016).
11. Vinayraj V S “Study of Pedestrian Flow Characteristics on Crosswalk at Midblock in India” (July 2016).
12. Bijul Raveendran “Flow Modelling of Mixed Traffic based on Inter-Vehicular Spacing using Image Processing” (July 2017). Now pursuing PhD at IIT Bombay

13. Ayush Mishra “Safety Assessment using proximal safety indicator and study of driver`s collision avoidance behaviour at unsignalised intersection in Surat.” (July 2017). Joined L&T ECC, Mumbai.
14. Soorya V. B. “Traffic count Prediction using Time Series Analysis on Toll Plazas” (July 2017)
15. Raunak V. Kenny “Travel time reliability on bus routes in Surat and Indore City” (July 2017). Joined SVNIT, Surat as Project Associate.
16. Tania Ann Joseph “Methodology to simulate traffic operations at roundabouts in India” (July 2017). Joined L&T Infra, Chennai.
17. Deepa Dileep “Calibration of Vehicle Following Models using Trajectory data for Intercity Expressways” (July 2017). Now working at WSP, Noida.

15 G. Research Guidance (M tech and B Tech Dissertations) at BITS Pilani

1. Subodh Kant Dubey: Route Choice Modeling using Fuzzy Logic, (ME Transportation) completed in 2011.
2. Nilesh Deshpande: Mapping of Accidents Using GIS in Pilani, (BE) completed in 2011.
3. Nitish Sharma: Study of Heterogeneous Traffic Flow Characteristics on two-lane roads; (BE) completed in 2010.
4. Balaji P.: Characteristics of Expreeways Bottlenecks Operating at Capacity, (METransportation)completed in 2012.
5. Nikhil Sumanth: Evaluation of Accessibility Index based on Equivalent Travel Times for a residential location in Jaipur city, (ME Transportation) completed in 2012.
6. Praveen Singh: Modelling Pedestrian Gap Acceptance Behaviour at Mid-Block Crosswalk, (ME Transportation) completed in 2012.
7. Sagar Kurle: Study of Lane usage on Expressways: An Empirical Analysis completed in 2013.
8. Vijay Dhale: Study of Pedesrian Traffic Flow Characteristics on Sidewalks in India completed in 2013.
9. Kartikeya Jha: Application of Traffic Forecasting Techniques for Projecting Vehicular Population in India (B.E.) completed in 2012.
10. Ravikiran P: Modelling Traffic Flow on Indian Roads using Micro-simulation completed in 2013.

11. Manojpal Reddy Nagavelli: Development Of Real Optimal Bus Scheduling And Time – Table With Headway Control Model, completed in May 2013
12. Saurabh Ahuja: Simulating Bus Rapid Transit Systems on Indian Roads, completed in May 2013
13. Sukrit Narula: Methodology for Simulating Heterogeneous Traffic on Expressways in Developing Countries: A Case Study in India, completed in May 2013

16A. Subjects Taught at BITS Pilani:

Sl. No.	Subject	PG/UG
1	Transportation System Planning and Management	M.E. (Transportation)
2	Traffic Flow Theory	M.E.(Transportation)
3	Urban Mass Transit Planning Operation and Management	M.E. (Transportation)
4	Research Practice in Traffic Engineering	M.E. (Transportation)
5	Traffic Engineering and Safety	M.E. (Transportation)
6	Transportation Economics	M.E. (Transportation)
7	Professional Practice in Traffic Engineering-I	M.E.(Transportation)
8	Pavement and analysis and Design	M.E.(Transportation)
9	Transportation Engineering	B. E. (Civil)

16B. Subjects Taught in Past: (Undergraduate Level)

Sl. No.	Year (UG)	Subject	No. of times
1	I Year:	Civil Engineering Graphics,	2
		C programming,	2
		C++ Programming	1
		Environmental Awareness and Education	1
2	II Year	Computer Applications,	2

		Building & Town Planning	2
3	III Year	Highway & Traffic Engineering	2
		Water Resources and Irrigation	2
4	IV Year	Quantity Surveying Estimation & Valuation,	2
		Docks and Harbors	2
		Site Project Work	1

17. Subjects opted in Ph.D. (Transportation Engineering):

Sl. No.	Course Name	Credits	Grade
1	Traffic Engineering and Management	4	S
2	Urban Transportation Planning	4	A
3	Traffic Flow theory	3	B
4	Transportation System Analysis	3	B
5	Computer Simulation	3	A
6	Probability and Statistics	3	B
7	Research Methodology	No Credits	Pass

18. Research Contributions (Ph.D.):

1. Data Collection for road traffic for varying roadway and traffic conditions in different parts of country such as Bangalore, Chennai, Pune, Mumbai on NH-45, NH-7, NH-4 etc.
2. The simulation model, named, HETEROSIM, was calibrated and validated using the collected traffic flow data pertaining to the National Highway stretches (part of prestigious project such as Golden Quadrilateral and North-South and East-West Corridor) in India.
3. The validated model was used to develop speed-flow relations, PCU estimates over wide range of traffic volumes for four-lane and six-lane divided roads. Dynamic nature of PCU values of different vehicles was studied with change in road width and degree of heterogeneity in traffic.
4. A framework for modeling traffic flow on grades was developed. The developed framework was incorporated in the simulation model, HETEROSIM, for studying the effect of upgrades on performance of vehicles in heterogeneous traffic conditions.

5. The validated model was used to develop speed-distance performance curves for different vehicle categories on grades varying from 2% to 6% under heterogeneous traffic conditions.
6. The model was used to develop speed-flow relations, PCU estimates over wide range of traffic volumes for four-lane divided roads with magnitude of upgrades varying from 2% to 6%. The effect of length of grade on PCU values of different vehicle categories was also studied.
7. Finally, all the PCU estimates were used to derive at capacity estimates for varying roadway conditions on divided intercity roads.

19. Subjects opted in M. Tech (Urban Planning):

Theory & Environmental Planning, Planning Principles and Techniques, Housing & Community Planning, Traffic and Transportation Planning, Computer Applications and Statistical Methods, Architectural Design, Theory of Regional Planning, urban Design Techniques, Ecology and Resource Development, Urban Landscape Design, Economics of Urban Development, Development Plan of Kamptee Town.

19A. Thesis Research Work (M.Tech.):

“Zoning for Sitting of Industries and environmentally Compatible Township at NandgaonPeth, Amravati”

The research work involves zoning and categorization of chemical industries based on the environmental factors by preparing certain thematic maps pertaining to Air, Water and Ground water Pollution, sensitive zones and Physical characteristics of region and study area as well. Research work also includes location and zoning of township and Chemical Industries based on the environmental considerations

19 B. Dissertation Work (M. Tech):

“Analytical Study of IIM, Bangalore Campus”

The dissertation work involves study of IIM, Bangalore Campus based on planning and campus design aspects for which four case studies were considered.

- Entrepreneurship Development Institute, Ahmedabad.
- National Insurance Academy, Baner (Pune)
- YASHADA, Pune
- Punjab University, Chandigarh.

Based on this comparison certain guidelines were evolved regarding campus planning and design in dissertation work.

Thesis and Dissertation Guide: Prof. V. S. Adane, Professor, Department of Architecture and Planning, VNIT, Nagpur.

20. Subjects opted in B. E. (Civil)

Theory of Structures, Structural Design, Irrigation Engineering, Transportation Engineering, Applied Remote Sensing, Pavement Design, Water Transmission and distribution systems.

20 A. Project Work Done in B.E.:

“Water Assessment Studies and Design of Distribution System for VRCE, Campus.”

The project involves assessment of water supplied through the water distribution system at VNIT, Nagpur, campus, in terms of quality and quantity. Further a design of water distribution system was done to check the adequacy of sizes of pipes in existing system.

Dissertation Guide: Dr. Rajesh Gupta, Professor and Head, Civil Engineering Department VNIT, Nagpur.

21. Invited Talks:

1. As a part of Half Time Research Assistant (HTRA), for the subjects ‘Traffic Flow Theory’ and ‘Traffic Engineering and Management’ few lectures were delivered to M. Tech. and B. Tech. classes at IIT Madras.
2. “Traffic Flow Measurement on Intercity Roads” to the Officials from various Highways and Transport Departments across the country in the workshops on “Road Transportation Planning (ROADTRAP)” organized at IIT Madras in November and February, 2009
3. “Modelling of Heterogeneous Traffic Flow on Upgrades of Intercity Roads” to the scientists from Central Road Research Institute (CSIR-CRRI) laboratory, New Delhi, India, on 16.01.2012.
4. “Modelling of Traffic Flow on Indian Expressways using Simulation Technique” in the PTV Germany (Sunovatech) User Group Meeting in New Delhi, India on 9-02-2012.
5. “Impact Assessment of Bus Rapid Transit under Heterogeneous Traffic Conditions.” to the students and faculties of Department of Architecture and Planning, Visvesvaraya National Institute of Technology Nagpur, India, on 13.2.2012.
6. “Analysis of Heterogeneous Traffic Flow Using Microscopic Simulation Technique” to the students and faculties of Department of Civil Engineering, in National Symposium at Gyan Ganga Institute of Technology, (GGCT) Jabalpur, India, on 17.3.2012.
7. “Time Gap Modelling under Mixed Traffic Conditions: A Statistical Analysis” to the participants in the National Conference and Workshop on ‘Recent Advances in traffic Engineering’ at SVNIT Surat, India, on 7.06.2012.
8. “Estimating Capacity for Eight-lane Divided Urban Expressway under Mixed-Traffic Conditions Using Computer Simulation” in the PTV Group (Sunovatech) User Group Meeting in New Delhi, India on 8-03-2013.

9. “Fundamentals of Traffic Flow Theory and Traffic Engineering Safety” in BITS Pilani Rajasthan on 3-5 August 2014.
10. “Effect of Speed Limit Compliance on Roadway Capacity of Indian Expressways” in 8th National Frontiers of Engineering at IIT Gandhinagar on 6th September, 2014.
11. “Measurement of Traffic Flow Characteristics at mid-block sections”, Recent Advances in studies of Traffic Engineering (RASTE) 30th June to 11th July 2014
12. “Capacity and LoS Analysis at mid-block sections for different classes of roads”, Recent Advances in studies of Traffic Engineering (RASTE) 30th June to 11th July 2014
13. “Fundamentals of Traffic Flow Modelling”, Recent Advances in studies of Traffic Engineering (RASTE) 30th June to 11th July 2014
14. Laboratory Tests on Aggregates and Bitumen to PWD Engineers in PWD Diu and Daman on November 2014.
15. “Case Studies for Modeling Heterogeneous Traffic on Intercity roads using Micro-simulation” One Week TEQIP Sponsored FDP on “Recent Advances in Traffic Engineering and Transportation Planning (**RATE & TP**)” from 8th-13th December 2014, Malnad College of Engineering, Hassan, Karnataka
16. “Measurement of Traffic Flow Characteristics at mid-block sections” One Week TEQIP Sponsored FDP on “Recent Advances in Traffic Engineering and Transportation Planning (**RATE & TP**)” from 8th-13th December 2014, Malnad College of Engineering, Hassan, Karnataka
17. “Measurement of Traffic Flow Characteristics at mid-block sections”, Recent Trends and Modern Practices in Transportation Engineering, on 16th December 2014 at Universal College of Engineering Kaman, Vasai, Mumbai.
18. “Measurement of Traffic Flow Characteristics at mid-block sections”, Recent Trends and Modern Practices in Transportation Engineering, on 16th December 2014 at Universal College of Engineering Kaman, Vasai, Mumbai.
19. “Few Interesting Aspects in Transportation Engineering” MVJCE, Bangalore on 6th February 2015.
20. “Measurement of Traffic Flow Characteristics at mid-block sections and Signalized Intersections” AICTE Sponsored Short Term Course on Innovative Technologies in Transportation Engineering, 23-27 February, 2015 at IIT Guwahati
21. “Basic Aspects on Simulating Traffic Flow on Indian Roads” Gujarat Technical University Research Week on 8th April, 2015.
22. “Methodology for Simulating Heterogeneous Traffic on Expressways in Developing countries: A Case study in India, RATE-2015, 3-4th July 2015 at SVNIT Surat
23. “Performance of BRTS in Surat” Public Transportation issues and challenges in Surat, One Day workshop organized by IUT Gujarat-Rajasthan Chapter and SVNIT Surat on 1st August, 2015.

24. “Operational Analysis of Surat BRTS” Public Transport In Rajkot: Status And Challenges,” One Day workshop organized by IUT Gujarat-Rajasthan Chapter and SVNIT Surat on 26th September, 2015.
25. “Walk-ability and User Perceptions, One Day Stakeholders Consultation”, Workshop on Urban Transport Mobility & Walk-ability’ Organized by Surat Municipal Corporation in collaboration with SVNIT Surat on 17-10-2015.
26. Effect of Driver’s Compliance on Capacity of Roads, one week STTP on Construction and Road Safety Management, Organized by Civil Engineering Department, SVNIT Surat during 26-30 October 2015.
27. “Basics on Traffic Flow Analysis” at Universal College of Engineering Kaman, Vasai, Mumbai, on 22nd March 2016.
28. Simulation based Safety Assessment at Un-Signalized Intersection in Surat, a two-day workshop on “ITS: Road Safety and Modeling” organized by Department of Civil Engineering, PDPU on March 29, 2016 at PDPU, Gandhinagar.
29. “Basics of Traffic Engineering and Management”, at Civil Engineering Department, Gujarat Power Engineering and Research Institute, Mehsana (Gujarat) on 6th October, 2016
30. “Basics of Traffic Engineering and Management”, at Civil Engineering Department, Gujarat Power Engineering and Research Institute, Mehsana (Gujarat) on 6th October, 2016
31. “Performance Evaluation of Surat BRTS: Few Case Studies” One Day workshop organized by Bhagwan Mahavir Education Foundation, Surat on Current Scenario Of Public Transportation In Surat: Problems And Remedies on 7th October, 2016
32. “Basics of Traffic Flow Theory” at Nirma University, Department of Civil Engineering, Institute of Technology, on 13th October, 2016
33. VISSIM workshop and Hands on Training at Silver Oak College of Engineering for B Tech Students on 25th March 2017.
34. VISSIM workshop and Hands on Training at Parul University for B Tech Students on 25th April 2017.
35. VISSIM workshop and Hands on Training at Parul University for M Tech Students on 25th May 2017.
36. Few Important Case studies in Transportation Engineering related to Smart Infrastructure, Universal College of Engineering, 25th June 2017.
37. Study of Vehicle Following Behavior Under Heterogeneous Traffic Conditions, Department of Civil and Environmental Engineering, University of Missouri, USA on 18th July 2017.
38. “Road Safety Audit: Few Case Studies”, to R & B PWD Engineers on 27th July 2017.

21A. Laboratory Experience

i. Conducting laboratory courses:

- **Highway and Traffic Engineering laboratory**
 - Traffic volume count at mid-block and intersections
 - Speed measurement at mid-block and intersections
 - Vehicle arrival pattern and distribution
 - Headway measurement and distribution
 - Highway Material Tests

ii. Using different types of instruments, systems, computers etc.:

- Traffic data collection over wide range of roadway and traffic conditions using video camera
- Data extraction using Power DVD, AVIDMAX, Bluetooth/Wi-Fi sensors
- Microscopic traffic parameters and transit performance indicators using Global Position Systems (GPS)
- Microscopic traffic parameters using Bluetooth/Wi-Fi sensors and Image Processing Techniques

22. Research Interests:

- Traffic Flow Modeling and Simulation
- Traffic Operation and Management,
- Emerging Traffic Data Collection Techniques
- Transportation Systems Planning, Design and Operation
- Public Transportation and Sustainable Transportation
- Road Safety and Simulation

23. Papers accepted for Publication International & National Journals:

2008

1. V. Thamizh Arasan and Shriniwas S. Arkatkar, “Simulating Passenger Car Unit for Vehicles in Heterogeneous Traffic” **Traffic Engineering and Control**, 2008, 49 (11), 436-440.
2. V. Thamizh Arasan and Shriniwas S. Arkatkar, “Enhancing the Accuracy of Estimation of Passenger Car Unit for Vehicles of Heterogeneous Traffic” **Highway Research Journal**, Indian Roads Congress, New Delhi, 2008, Issue no 1, 61-69. (This paper has been selected as the ‘Outstanding Research Paper’ by Indian Roads Congress in 2009. **(IRC Best Paper Medal)**)

2010

3. V. Thamizh Arasan and Shriniwas S. Arkatkar “Modelling of Heterogeneous Traffic Flow on Upgrades of Intercity Roads.” **Transport, Taylor and Francis Publication** 2010, 25(2), 129-137.doi: 10.3846 / transport.2010.16
4. V. Thamizh Arasan and Shriniwas S. Arkatkar “Micro-simulation Study of Effect of Volume and Road Width on PCU of Vehicles under Heterogeneous Traffic” **Journal of Transportation Engineering, ASCE**, 2010, 136(12), 1110-1119. doi:10.1061/(ASCE)TE.1943-5436.0000176

5. Shriniwas S. Arkatkar and V. Thamizh Arasan “Effect of Gradient and its Length on Performance of Vehicles under Heterogeneous Traffic Conditions” **Journal of Transportation Engineering, ASCE**, 2010, 136(12), 1120-1136. doi:10.1061/(ASCE)TE.1943-5436.0000177

2011

6. Nitish Sharma, Shriniwas S. Arkatkar and Ashoke K. Sarkar “Study of Heterogeneous Traffic Flow Characteristics on Two Lane Roads” **Transport, Taylor and Francis**, 2011, 26(2), 185-196. 10.3846/16484142.2011.593120. This paper has been contributed based on the B. Tech. dissertation guidance at BITS Pilani.
7. V. Thamizh Arasan and Shriniwas S. Arkatkar “Micro-simulation Study of Vehicular Interactions in Heterogeneous Traffic Flow on Intercity Roads” **Journal of European Transport**, 2011, 48, 1-29.
8. V. Thamizh Arasan and Shriniwas S. Arkatkar “Effect of Upgrade and its length on PCU of Vehicles in Heterogeneous Traffic” **Highway Research Journal**, Indian Roads Congress, New Delhi, 4(1), 2011, 51-68.
9. Balaji P, Shriniwas S Arkatkar and Anupam Singhal, “Impacts of Induced Travel on Indian Highway Projects: A Case Study” **International Journal of Earth Sciences and Engineering**, 4(6), 2011, 385-389. This paper has been contributed based on the M. Tech. term project guidance at BITS Pilani.
10. Deshpande Nilesh, Ishan Chanda and Shriniwas S Arkatkar, “Accident Mapping And Analysis Using Geographical Information Systems” **International Journal of Earth Sciences and Engineering**, 4(6), 2011, 342-345. This paper has been contributed based on the B. Tech. dissertation guidance at BITS Pilani.
11. Shriniwas S Arkatkar, “Effect of Intercity Road Geometry on Capacity under Heterogeneous Traffic Conditions Using Microscopic Simulation Technique” **International Journal of Earth Sciences and Engineering**, 4(6), 2011, 375-380.
12. V. Thamizh Arasan, Shriniwas S. Arkatkar, “Derivation of Capacity Standards for Intercity Roads Carrying Heterogeneous Traffic using Computer Simulation”. *Procedia - Social and Behavioral Sciences*, Volume 16, 2011, Pages 218-229.

2012

13. Shriniwas S. Arkatkar and V. Thamizh Arasan “Micro-simulation Study of Vehicular Interactions on Upgrades of Intercity Roads in Heterogeneous Traffic” **European Transport**, 2012, 52(3),1-33.
14. Subodh Kant Dubey, Balaji P. and Shriniwas S. Arkatkar “Time Gap Modeling under Mixed Traffic Conditions: A statistical Analysis” **Journal of Transportation System Engineering and Information Technology, Elsevier**, 2012, 12(6), 25-34.
15. Manraj Singh Bains, Balaji Ponnu, Shriniwas S Arkatkar, “Modeling of Traffic Flow on Indian Expressways using Simulation Technique”, *Procedia - Social and Behavioral Sciences*, Volume 43, 2012, Pages 475-493.

2013

16. Kartikeya Jha, Nishita Sinha, Shriniwas S. Arkatkar and Ashoke Sarkar "Time Series Analysis of Traffic Data Using AADT Data from California, USA" **Modern Traffic and Transportation Engineering Research**, American V-King Scientific Publishing Limited, 2(1), 2013, 60-67.
17. Subodh Kant Dubey, Balaji P. and Shriniwas S. Arkatkar "Modeling Time Gap Modeling using Mixture Distributions under Mixed Traffic Conditions" **Journal of Transportation System Engineering and Information Technology**, Elsevier, 2013, 13(3), 91-98.
18. Kartikeya Jha, Nishita Sinha, Shriniwas S. Arkatkar and Ashoke Sarkar "Modeling Growth Trend and Forecasting Techniques for Vehicular Population in India" **International Journal for Traffic and Transport Engineering**, 2013, 3(2), 139-158.
19. Ravi Puvvala, Balaji Ponnu and Shriniwas S Arkatkar, "Derivation of Capacity Estimates for Urban Expressway Using Computer Simulation" **Indian Highways**, Indian Roads Congress, 2013, 41(4), 35-44.
20. Ravikiran P., Balaji P., Shriniwas Arkatkar and S. Velmurugan, "Estimating Capacity for Eight-lane Divided Urban Expressway under Mixed-Traffic Conditions Using Computer Simulation" **International Journal of Advances in Engineering Sciences and Applied Mathematics: Special Issue on Advanced Traffic and Transportation Systems**, Springer, 2013, 5(2-3), 177-194(DOI: 10.1007/s12572-013-0089-z)
21. Subodh Kant Dubey, Deval Mishra, **Shriniwas S Arkatkar**, Ajit Pratap Singh and Ashoke Kumar Sarkar, Route Choice Modelling Using Fuzzy logic and Adaptive Neuro-fuzzy, **Modern Traffic and Transportation Engineering Research**, American V-King Scientific Publishing Limited, 2013, 2(4), 11-19.
22. Shalini K. Umasankar, Shriniwas S Arkatkar, Ajit Pratap Singh and Ashoke Kumar Sarkar, "Quantification of Level-of-Service Index for Bus Routes in Developing Countries: A Case Study in India" **Journal of Eastern Asia Society of Transportation Studies**, 2013, 10, 1347-1366
23. Behara, Krishna Nikhil Sumanth, **Arkatkar, Shriniwas S.**, and Sarkar, Ashoke Kumar, A Composite Index to Measure the Perceived Inadequacy of Public Transportation, **Institute of Urban Transport Journal**, 2013, 12(1), 28-35.
24. Manraj Singh Bains, Anshuman Bhardwaj, Shriniwas Arkatkar, S. Velmurugan, "Effect of Speed Limit Compliance on Roadway Capacity of Indian Expressways", *Procedia - Social and Behavioral Sciences*, Volume 104, 2 December 2013, Pages 458-467.
25. Makrand Wagale, Ajit Pratap Singh, Ashoke K. Sarkar, Srinivas Arkatkar, "Real-time Optimal Bus Scheduling for a City Using A DTR Model", *Procedia - Social and Behavioral Sciences*, Volume 104, 2 December 2013, Pages 845-854
26. J. Rajendra Prasad, Shalini Kanuganti, Pooja N. Bhanegaonkar, Ashoke Kumar Sarkar, Shriniwas Arkatkar, "Development of Relationship between Roughness (IRI) and Visible Surface Distresses: A Study on PMGSY Roads", *Procedia - Social and Behavioral Sciences*, Volume 104, 2 December 2013, Pages 322-331

2015

27. Balaji P., Sukrit Narula, Shriniwas Arkatkar and S. Velmurugan, "Lane Usage, Following Behavior and Time Gap Models for a Multi-Lane Freeway in India, **Transportation Letters: The International Journal of Transportation Research**. Taylor and Francis, 2015, 7(1), 14-23.
28. Jiten Shah, Gaurang Joshi, Purnima Parida, and Shriniwas Arkatkar, Impact of Train Schedule on Pedestrian Movement on Stairway at Suburban Rail Transit Station in Mumbai, India, **International Journal on Advances in Civil Engineering**, Hindawi Publication, 2015, 9 pages.
29. Balaji P., Rajesh Reddy, Deval Mishra, Shriniwas Arkatkar and Ashoke Sarkar, "Effect of Induced Traffic on Feasibility of Highway Projects using Economic Analysis: A Case Study in India, **Case Studies on Transport Policy- A Supplementary Journal to Transport Policy**, Elsevier, 2015,3(3), 347-354
30. Shalini K. Umasankar, Ashole Kumar Sarkar, Ajit Pratap Singh and Shriniwas S Arkatkar, Quantification of Accessibility to Health Facilities in Rural Areas, **Case Studies on Transport Policy- A Supplementary Journal to Transport Policy**, Elsevier, 2015,3(3), 311-320.
31. Jabeena, M, Joshi, G. J., Arkatkar, S., Ravinder, K. "Traffic Characteristics Study Through Processing of Video Image For Expressway in India" Journal of Society of Traffic and Transportation Studies, 2015,6(2), 1-12
32. Jiten Shah, Gaurang Joshi, Purnima Parida, and Shriniwas Arkatkar, Analysis of Commuter Flow Behaviour On Stairways At Metropolitan Transit Station In Mumbai, India, **International Journal for Traffic and Transport Engineering**, 2015, 5(4), 451-457.

2016

33. Kartikeya Jha, Nishita Sinha, Shriniwas S. Arkatkar and Ashoke Sarkar (2016) "A Comparative Study on Application of Time Series Analysis for Forecasting Vehicular Population in India: Prospects and Limitations" **Current Science**, **110(3)**, **373-385**.
34. Nipjyoti B., Pallav Kumar, Shriniwas Arkatkar, Akhilesh Maurya and Gaurang Joshi, (2016) "Traffic Data Analysis using Image Processing Technique on Delhi-Gurgaon Expressway", **Current Science**, **110(5)**, **808-822**.
35. Shriniwas Arkatkar, S. Velmurugan, Ravikiran P., Balaji P. and Sukrit Narula "Methodology for Simulating Heterogeneous Traffic on Expressways in Developing Countries: A Case Study in India" **Transportation Letters: The International Journal of Transportation Research**. Taylor and Francis (Accepted for publication)
36. Jiten Shah, Gaurang Joshi, Purnima Parida, and Shriniwas Arkatkar, Effect of Stairway width on pedestrian Flow characteristics, **Transportation Letters: The International Journal of Transportation Research**. Taylor and Francis (Accepted for publication)
37. Jiten Shah, Gaurang Joshi, Purnima Parida, and Shriniwas Arkatkar. (2016) "Determination of pedestrian level of service for undivided stairways at suburban rail

station in developing countries” **Transportation Research Record (TRR)**, Transportation Research Board, (Accepted for Publication).

38. Mathew Sonu, Ashish Dhamaniya, Shriniwas Arkatkar and G J Joshi (2016) Time Occupancy as Measure of PCU at Four Legged Roundabouts, **Transportation Letters: The International Journal of Transportation Research**, Taylor and Francis (Accepted for publication)
39. Jiten Shah, Gaurang Joshi, Purnima Parida, and Shriniwas Arkatkar (2016) Effect of Directional Distribution on Stairway Capacity at Suburban Railway Station in India, **Transportation Letters: The International Journal of Transportation Research**. Taylor and Francis (Accepted for publication)
40. Jiten Shah, Gaurang Joshi, Purnima Parida, and Shriniwas Arkatkar (2016) Comparative Study of Macroscopic Pedestrian Flow Characteristics on Stairways at Rail Transit Stations, **Transportation in Developing Economies (TiDE), A Journal of the Transportation Research Group of India**. Springer (Accepted for publication)
41. Mishra Rajiv Ranjan, A Dhamaniya and S Arkatkar (2016) **Estimation of Capacity of Expressways in India using Dynamic PCU Value**, Urban Transport Journal, Institute of Urban Transport (India), 15(1), 93-102.
42. Rupali Zope, Shriniwas Arkatkar, Gaurang Joshi, Key Challenges to Urban Transport Sustainability: Case Study of Indian Cities, Accepted for Publication in **Urban Transport Journal, Institute of Urban Transport (India)**.
43. **Sagar Kurle, Krishna N.S. Behara, J. Rajendra Prasad, Shriniwas Arkatkar, Ashoke Kumar Sarkar**, “Study of Lane Utilization on Delhi-Gurgaon Expressway”, Transportation Research Procedia, Volume 17, 2016, Pages 674-684.

2017

44. Nipjyoti Bharadwaj, Mathew Sonu, Agnivesh Pani, Shriniwas Arkatkar, Gaurang Joshi and Kayitha Ravinder, ,(2017) Effect of Traffic Composition and Emergency Lane on Capacity: A Case Study of Intercity Expressway in India, **Transportation Letters: the International Journal of Transportation Research**. Taylor and Francis (Accepted for publication)
45. Nipjyoti B., Pallav Kumar, Ajinkya Mane, Shriniwas Arkatkar, Ashish Bhaskar and Gaurang Joshi,,(2017) Comparative evaluation of density estimation methods on different uninterrupted roadway facilities: Few case studies in India, **Transportation in Developing Economies, Springer** (Accepted for publication)
46. Chepuri, A, A. Wagh, A., S. S. Arkatkar and G J Joshi, (2017) “Study of Travel Time Variability using Two-wheeler probed data: A case study of Urban Arterial in Surat.” **Proceedings of the Institute of Civil Engineers: Transport, UK** (Accepted for publication). <https://doi.org/10.1680/jtran.16.00101>
47. Raunak Mishra, Pallav Kumar, Shriniwas S. Arkatkar, Ashoke Kumar Sarkar,(2017) Novel Area Occupancy Based Methodology For PCU Estimation On Multilane Urban Roads Under Heterogeneous Traffic Scenario, **Transportation Research Record (TRR)**, Transportation Research Board, (Accepted for Publication).

48. Manraj Singh Bains, Shriniwas Arkatkar, K S Anbumani, Siva Subramaniam, (2017) Optimizing/Modeling Toll Way Operation using Micro Simulation: Case Study Sanand Toll Plaza, Ahmadabad, Gujarat, India, **Transportation Research Record (TRR)**, Transportation Research Board, (Accepted for Publication).
49. Mane A., Sarkar A, Arkatkar Shriniwas and Bhaskar A (2017) Effect of Bus-Lane Usage by Private Vehicles on Modal Shift, **Proceedings of the Institute of Civil Engineers: Transport, UK** (Accepted for Publication), <https://doi.org/10.1680/jtran.16.00127>.
50. Shah Jiten, Joshi Gaurang, Arkatkar Shriniwas and Parida Purnima, (2017) Estimation of free speed of pedestrians flow on stairways at busy suburb rail transit station in India, **Current Science**, (Accepted for Publication)
51. Pallav Kumar, Krinshnanunni, Shriniwas Arkatkar, Gaurang Joshi (2017) Examining Microscopic and Macroscopic Traffic Flow Parameters at Diverging Section on Multi-Lane Urban Roads in India, **European Transport\Trasporti Europei** (Accepted for Publication).
52. Chaitrali Shirke, Nikhil Sumanth Shriniwas Arkatkar, Ashish Bhaskar Gaurang Joshi, (2017) Modeling Expressway Lane Utilization and Lane Choice Behavior: A Case Study On Delhi-Gurgaon Expressway, **Transportation Letters International Journal of Transportation Research** (Accepted for Publication).
53. Manish Jain, Shriniwas Arkatkar, Gaurang Joshi (2017) Effect of Weight-to-Power Ratio on Acceleration Characteristics of Trucks under Varying Grade Conditions using Mechanistic Approach, **European Transport\Trasporti Europei**(Accepted for Publication).
54. Narayana RAJU, Pallav KUMAR, Chakradhar REDDY, Shriniwas ARKATKAR, Gaurang JOSHI, (2017) ‘Examining Smoothing Techniques for Developing Vehicular Trajectory Data Under Heterogeneous Conditions,’ **EASTS Journal** (Accepted for Publication).
55. Narayana RAJU, Ayush Mishra, Akhilesh Chepuri, Shriniwas ARKATKAR, Gaurang JOSHI, (2017) ‘A Simulation Approach for Examining Designed Truck Terminal Operations for Forecasted Demand at Busy Sea Port, **EASTS Journal** (Accepted for Publication).
56. Chatrali Shirke, G.J. Joshi, V. Kandala, S.S. Arkatkar, “Transit Oriented Development and Its Impact on Level of Service of Roads & METRO: A Case Study of Mumbai Metro Line-I”, *Transportation Research Procedia*, Volume 25, 2017, Pages 3035-3054.
57. Sonu Mathew, Ashish Dhamaniya, S.S. Arkatkar, Gaurang Joshi, “Roundabout Capacity in Heterogeneous Traffic Condition: Modification of HCM Equation and Calibration”, *Transportation Research Procedia*, Volume 27, 2017, Pages 985-992
58. Anil Kumar, Jairam R. Shriniwas Arkatkar Lelitha Vanajakshi, (2017) Real Time Bus Travel Time Prediction using k-NN Classifier, **Transportation Letters International Journal of Transportation Research** (Accepted for Publication).

2018

59. Pallav Kumar, Shriniwas Arkatkar, Gaurang Joshi (2018) New Approach For Estimating PCU on Multi Lane Urban Roads under Heterogeneous Traffic Conditions **Journal of Transportation Engineering, Part A: Systems, ASCE** (Accepted for Publication).
60. Akhilesh Chepuri, Manjunath B, Rushikesh Amrutsanavar, Shriniwas Arkatkar, Gaurang Joshi. Examining Travel Time Reliability under Mixed Traffic Conditions - A Case Study of Urban Arterial Roads in Indian cities, *ATS Journal* (Accepted for Publication).
61. Avinash R. Chaudhari, Jiten H. Shah, Shriniwas S. Arkatkar, Gaurang J. Joshi, Manoranjan Parida. Examining Effect of Approaching Vehicle Type on Pedestrian Flow Characteristics at Urban Mid-Block Crosswalks in India, *EASTS Journal* (Accepted for Publication).
62. Pallav Kumar, Narayana RAJU, Shriniwas Arkatkar, Gaurang Joshi (2018) ‘Novel Methodology to Estimate Homogeneous Equivalent for Heterogeneous Traffic Flow on Multilane Urban Roads’, **EASTS Journal** (Accepted for Publication).
63. Rupali ZOPE, Shriniwas ARKATKAR, Guarang JOSHI (2018) ‘Benchmarking for Sustainable Urban Transport Systems: A Comparative Study in Indian Metro Cities’, **EASTS Journal** (Accepted for Publication).
64. Akhilesh Chepuri, Jairam R, Shriniwas Arkatkar, Gaurang Joshi and Srinivas Pulugurtha (2018) ‘Examining Travel Time Reliability Based Performance Indicators for Bus Routes using GPS-based Bus Trajectory Data in India’ **Journal of Transportation Engineering, Part A: Systems, ASCE** (Accepted for Publication).
65. Shriniwas Arkatkar (2018) Traffic Operations and Capacity Analysis in India, Editorial Note for Special Issue in *Transportation Letters International Journal of Transportation Research*. (Accepted for Publication).
66. Pallav Kumar, Shriniwas Arkatkar, Gaurnag Joshi, (2018) Calibration of Traffic Stream Models on High Speed Urban Roads. **Proceedings of the Institute of Civil Engineers: Transport, UK** (Accepted for Publication),
67. Jairam R, Anil Kumar, Shriniwas Arkatkar, Lelitha Vanajakshi. Performance Comparison of Bus Travel Time Prediction Models Across Indian Cities. **Transportation Research Record (TRR)**, Transportation Research Board, (Accepted for Publication). 97th Annual Transportation Research Board (TRB) meeting at Washington DC, USA January 7-11, 2018
68. Narayana Raju, Pallav Kumar, Ayush Jain, Shriniwas Arkatkar, Gaurnag Joshi. Application of Trajectory Data for Investigating Vehicle Behavior in Mixed Traffic Environment. **Transportation Research Record (TRR)**, Transportation Research Board, (Accepted for Publication). 97th Annual Transportation Research Board (TRB) meeting at Washington DC, USA January 7-11, 2018
69. Pallav Kumar, Manraj S. Bains, Nipjyoti Bharadwaj, Shriniwas S. Arkatkar, Gaurang Joshi (2016) “Effect of driver compliance with varying traffic composition on roadway

capacity of Expressways in India”. Transportation Letters International Journal of Transportation Research (Revision Submitted).

70. Srinivas Reddy, Akhilesh Chepuri, Shriniwas Arkatkar and Gaurang J. Joshi, Developing proximal safety indicators for assessment of un-signalized intersection - a case study in Surat, 14th WCTR, Tongji University, Shanghai, China during 10-15 July 2016. (Invited for possible publication for special Issue in Transportation Letters International Journal of Transportation Research. Taylor and Francis)
71. Mathew Sonu, Ashish Dhamaniya, Shriniwas Arkatkar and G J Joshi, Conceptual Approach of Estimating PCU at Roundabouts, 14th WCTR, Tongji University, Shanghai, China during 10-15 July 2016. (Invited for possible publication for special Issue in Transportation Letters International Journal of Transportation Research. Taylor and Francis)
72. Akhilesh Chepuri, Sanskruti Joshi, Shriniwas Arkatkar, Gaurang Joshi and Ashish Bhaskar, Travel time reliability analysis of public transport system in India: A case study of bus routes in Mysore city, 14th WCTR, Tongji University, Shanghai, China during 10-15 July 2016. (Invited for possible publication for special Issue in Transportation Letters International Journal of Transportation Research. Taylor and Francis)
73. Maulik Bagadia, Pallav Kumar, Shriniwas Arkatkar, Gaurang J. Joshi (2016) “Disaggregate Mixed Traffic Flow Characteristics and Headway Distribution Study for Urban Arterial Roads”. Journal of Indian Road Congress, (Under Review).
74. Nipjyoti Bharadwaj Jabeena, M, Joshi, G. J., Arkatkar, S., Ravinder, K. (2016) “Study of flow Characteristics and traffic stream modelling on Indian Expressway - A Case Study of Mahatma Gandhi Expressway” Journal of Indian Road Congress, (Under Review).
75. Akhilesh Chepuri, Chetan M S, Shriniwas Arkatkar, Gaurang Joshi (2017) Travel Time Reliability Analysis on selected bus routes of Mysore public transportation system using GPS data (Invited for possible publication in Transportation in Developing Economies, Springer) presented at 12th TPMDC 18-21 December 2016, IIT Bombay.

23 A. Books

1. Shriniwas S. Arkatkar and V. Thamizh Arasan “Quantifying Traffic Flow on Intercity Roads: A Micro-Simulation Study of Heterogeneous Traffic Flow Characteristics” VDM Verlag Dr. Mueller Akt.ges. & Co.KG, Germany, May 2011. (ISBN: 978-3-639-33817-1) (Research Monograph)
2. Ashoke Sarkar, Shriniwas Arkatkar, Vinayak Rao and Indrajeet Ghosh, “Fundamentals of Transportation Systems: Highways, Railways, Airways and Waterways” for CBSE, May 2013, New Delhi.

23 B. Book Chapters

1. Shalini Kanuganti, Ajinkya S. Mane, Shriniwas S Arkatkar. “Road Accident Study and Analysis”, In: Medical Jurisprudence, Toxicology and Forensic Science for Classroom,

Investigation and Court Room with Case Laws. (Dr. Deoskar A.S), All India Reporter Pvt. Ltd, India (2nd edition). 2013

24. Papers Presented in International Conferences:

2006 and before

1. Shrinivas S. Arkatkar, “*Role of Space Technology in Natural Disaster Management*” was presented & published in the proceedings of International Workshop on “*Earth System Processes Related to Gujarat Earthquake Using Space Technology*” held at **IIT Kanpur, India**, during 27-29 January-2003
2. V. Thamizh Arasan & Shrinivas S. Arkatkar, “Study of the Effect of Heterogeneity of Traffic on Intercity Roadways Using Computer Simulation”, Proceedings of the international conference on, **Applications of Advanced Technology in Transportation**, August 13-16, 2006, **Chicago, USA**, pp 762-767.

2008

3. V. Thamizh Arasan and Shrinivas S. Arkatkar, “Study of Vehicular Interaction in Heterogeneous Traffic Flow on Intercity Highways Using Computer Simulation” **20th European Modeling and Simulation Symposium**, September 17–19, 2008, **Italy**.
4. V. Thamizh Arasan and Shrinivas S. Arkatkar, “Effect of Traffic Volume and Road Width on Passenger Car Unit Values of Vehicles Using Computer Simulation” International Conference on **Transportation Planning and Implementation Methodologies for Developing Countries**. Dec. 3–6, 2008, **IIT Bombay**, India.
5. V. Thamizh Arasan and Shrinivas S. Arkatkar, “Study of Vehicular Interaction in Heterogeneous Traffic Flow on Intercity Highways Using Computer Simulation” **20th European Modeling and Simulation Symposium**, September 17–19, 2008, **Italy**.
6. V. Thamizh Arasan and Shrinivas S. Arkatkar, “Effect of Traffic Volume and Road Width on Passenger Car Unit Values of Vehicles Using Computer Simulation” International Conference on **Transportation Planning and Implementation Methodologies for Developing Countries**. Dec. 3–6, 2008, **IIT Bombay**, India.
7. V. Thamizh Arasan and Shrinivas S. Arkatkar, “*Estimating Passenger Car Unit for Vehicles of Heterogeneous Traffic Using Computer Simulation*” **87th Annual Transportation Research Board Meeting CD ROM**, TRB, National Research Council, **Washington, D. C., U.S.A.**, 2008, pp. 1-14.

2009

8. Shrinivas S. Arkatkar and V. Thamizh Arasan “Micro-Simulation Study of the Effect of Roadway Factors on Heterogeneous Traffic Flow on Intercity Roads” **International Scientific Conference on Mobility and Transport**, 12 & 13 May 2009, **Munich, Germany**.

2010

9. V. Thamizh Arasan and Shrinivas S. Arkatkar, “Estimation of PCU of Vehicles in Heterogeneous Traffic on Upgrades of Intercity Roads Using Simulation Technique”

**Conference on infrastructure, Sustainable Transportation and Urban Planning,
October 18-20, 2010, IISc Bangalore, India.**

2011

10. V. Thamizh Arasan and Shriniwas S. Arkatkar, “ Derivation of Capacity Standards for Intercity Roads Carrying Heterogeneous Traffic Using Computer Simulation”, 6th ISHC- **International Symposium on Highway Capacity and Quality of Service**, June 28- July 1, 2011, **Stockholm, Sweden**.
11. Subodh Dubey and Shriniwas S. Arkatkar “Route Choice Modeling Using Fuzzy Logic and Logistic Regression Analysis” International Conference On Advances in Materials and Techniques for Infrastructure Development, NIT Calicut, 22-24 June, 2011.
12. Balaji P, Shriniwas S Arkatkar and Anupam Singhal, “Impacts of Induced Travel on Indian Highway Projects: A Case Study” International Conference on Advances in Civil Engineering, KL University, 21-23 October, 2011.
13. Deshpande Nilesh, Ishan Chanda and Shriniwas S Arkatkar, “Accident Mapping and Analysis Using Geographical Information Systems” International Conference on Advances in Civil Engineering, KL University, 21-23 October, 2011.
14. Shriniwas S Arkatkar, “Effect of Intercity Road Geometry on Capacity under Heterogeneous Traffic Conditions Using Microscopic Simulation Technique” International Conference on Advances in Civil Engineering, KL University, 21-23 October, 2011.
15. Balaji P, Subodh Kant Dubey and Shriniwas S Arkatkar, “Induced Traffic by Travel Cost Method: An Economic Case Study” 1st Conference of Transportation Research Group of India, 7-10 December, 2011.
16. Nilesh Deshpande and Shriniwas S Arkatkar, “Accident Mapping and Analysis Using Geographical Information Systems” 1st Conference of Transportation Research Group of India, 7-10 December, 2011 at Bangalore, India.
17. Subodh Kant Dubey, Balaji P and Shriniwas S Arkatkar, “Modeling Time Headway using Mixture Model” 1st Conference of Transportation Research Group of India, 7-10 December, 2011.
18. Subodh Kant Dubey and Shriniwas S Arkatkar, “A Comparative study of Route Choice Modeling using Fuzzy logic and Adaptive Neuro-fuzzy” 1st Conference of Transportation Research Group of India, 7-10 December, 2011.

2012

19. Manraj Singh Bains, Balaji P., Shriniwas S Arkatkar “Modeling of Traffic Flow on Indian Expressways using Simulation Technique” 8th ICTTS- **Procedia Social and Behavioral Sciences, Elsevier**, 2012.

20. Behara, Krishna Nikhil Sumanth, Arkatkar, Shriniwas S., and Sarkar, Ashoke Kumar, “ Estimation of Extra Burden Perceived by Public Transport Users while Walking to and from Bus Stops in Jaipur”, **Proceedings of the TSE Silver Jubilee International Conference -10th TPMDC**, 12-14 December, 2012, IIT Bombay.
21. Umashankar S, Shalini Kanuganti, Arkatkar, Shriniwas S. and Sarkar, Ashoke Kumar “Assessment of Level-of-Service of City Buses in Jaipur Using Fuzzy Set Theory”, Proceedings of the TSE Silver Jubilee International Conference -10th TPMDC, 12-14 December, 2012, IIT Bombay.
22. Kartikeya Jha, BalajiPonnu, Shriniwas S. Arkatkar, “Time Series Analysis: A Contemporary Approach to Traffic Volume Forecasting”, **Proceedings of the TSE Silver Jubilee International Conference -10th TPMDC**, 12-14 December, 2012, IIT Bombay.

2013

23. Shalini K. Umasankar, Shriniwas S Arkatkar, AjitPratap Singh and Ashole Kumar Sarkar, “Quantification of Level-of-Service Index for Bus Routes in Developing Countries: A Case Study in India” 10th International Conference of Eastern Asia Society of Transportation Studies at Taipei.
24. Balaji P, Subodh Kant Dubey, Shriniwas S Arkatkar and Ashoke Kumar Sarkar, “Impact Assessment of Induced Traffic on Feasibility of Highway Projects” 10th International Conference of Eastern Asia Society of Transportation Studies at Taipei.

2014

25. Shriniwas Arkatkar, S. Velmurugan, Ravikiran P., Balaji P. and Sukrit Narula “Methodology for Simulating Heterogeneous Traffic on Expressways in Developing Countries: A Case Study in India” Accepted for presentation in the **93rd Annual Transportation Research Board (TRB) meeting** at Washington DC, USA, January 12-16, 2014
26. Jabeena, M, Joshi, G. J., Arkatkar, S., Ravinder, K. “Traffic Characteristics Study Through Processing of Video Image for Expressway in India” 9th Asia Pacific Conference on Transportation and the Environment, Colombo during 6-8 the August 2014
27. Rushikesh Amrutsamanvar, Ravi Sekhar Chalumuri, Gaurang Joshi and Shriniwas Arkatkar “Relation between travel time reliability and space mean speed for mixed traffic conditions - a case study of urban road corridors in India,**11th TPMDC** Transportation Planning and Implementation Methodologies for Developing Countries 10-12 December 2014, IIT Bombay
28. Ajinkya Mane, Pallav Kumar, Shriniwas Arkatkar, Ashish Bhaskar and Gaurang Joshi Comparative evaluation of the density estimation models on Indian Expressway,**11th TPMDC** Transportation Planning and Implementation Methodologies for Developing Countries 10-12 December 2014, IIT Bombay
29. Sagar Kurle, Krishna N. S. Behara, Rajendra Prasad J., Shriniwas Arkatkar, Ashoke Kumar Sarkar Study of lane utilization on urban expressways- a case of Delhi-Gurgaon

expressway, **11th TPMDCTransportation Planning and Implementation Methodologies for Developing Countries** 10-12 December 2014, IIT Bombay

2015

30. Jiten Shah, G J Joshi, P. Parida and S. Arkatkar, “Empirical Study of Bidirectional Movement on Stairway at a Suburban Railway Station in India” Accepted for presentation in the 94rd Annual Transportation Research Board (TRB) meeting at Washington DC, USA, January 11-15, 2015.
31. Ajinkya S. Mane, Ashoke Kumar Sarkar and Shriniwas S. Arkatkar “Study of 1 Modal Shift to Bus Rapid Transit (BRT) In Developing Country: A Case Study in India” Accepted for presentation in the 94th Annual Transportation Research Board (TRB) meeting at Washington DC, USA, January 11-15, 2015.
32. Akhilesh CHEPURI, Rakesh Kulakarni, Manraj Singh Bains, Shriniwas Arkatkar, Guarang Joshi, “**Evaluation of BRTS Corridor in India Using Microscopic Simulation: A Case Study in Surat City**”. Proceedings of 11th International Conference of Eastern Asia Society of Transportation Studies at Cebu, Philippines.
33. Manish Jain, S S Arkatkar and Joshi, G. J “Studying Effect of Weight-To-Power Ratio on Acceleration Profile of Trucks under Varying Gradient Conditions”. Proceedings of 11th International Conference of Eastern Asia Society of Transportation Studies at Cebu, Philippines.
34. Jabeena, M, Joshi, G. J., Arkatkar, S., Ravinder, K. “Study of flow Characteristics and traffic stream modelling on Indian Expressway - A Case Study Of Mahatma Gandhi Expressway” 11th International Conference of Eastern Asia Society of Transportation Studies at Cebu, Philippines.
35. NipJyoti B., Pallav Kumar, Ajinkya Mane, Shriniwas Arkatkar, Ashish Bhaskar and Gaurang Joshi, Comparative evaluation of density estimation methods on different uninterrupted roadway facilities: Few case studied in India, 3rd CTRG at Kolkata, 17-20 December, 2015
36. Prasad H, A. Mane, S. Arkatkar, G. Joshi, Study of Operating speeds on two-lane hilly roads in India, 3rd CTRG at Kolkata, 17-19 December 2015
37. A. Wagh, A. Chepuri, S. S. Arkatkar and G J Joshi, “Study of Travel Time Variability using Two-wheeler probed data: A case study of Urban Arterial in Surat.” 3rd CTRG at Kolkata, 17-19 December 2015
38. Maulik Bagadiya, Shriniwas Arkatkar and Gaurang Joshi, “Disaggregate Mixed Traffic Flow Characteristics and Headway Distribution Study for Multilane Metropolitan Arterials”, 3rd CTRG at Kolkata, 17-19 December 2015

2016

39. Jiten Shah, Gaurang Joshi, PurnimaParida, and Shriniwas Arkatkar. (2016) “Determination of pedestrian level of service for undivided stairways at suburban rail station in developing countries” Transportation Research Record (TRR), Transportation Research Board, Jan-2016.

40. Mannilthodi Jabeena, Mathew Sonu, Shriniwas Arkatkar, Gaurang Joshi and Kayitha Ravinder, Effect of Traffic Composition and Emergency Lane on Capacity: A Case Study of Intercity Expressway in India, 14th World Conference on Transport Research, Tongji University, Shanghai, China, during 10-15 July 2016.
41. Akhilesh Chepuri, Sanskruti Joshi, Shriniwas Arkatkar, Gaurang Joshi and Ashish Bhaskar, Travel time reliability analysis of public transport system in India: A case study of bus routes in Mysore city, 14th World Conference on Transport Research, Tongji University, Shanghai, China during 10-15 July 2016.
42. Vasudevan N., Shriniwas S. Arkatkar and Gaurang J. Joshi, Travel demand elasticity analysis for non-voluntary purpose trips by heterogeneous travellers in Indian metropolitan city, Surat, 14th World Conference on Transport Research, Tongji University, Shanghai, China, during 10-15 July 2016.
43. Shah Jiten, Joshi Gaurang, Arkatkar Shriniwas and Parida Purnima, Estimation of free speed of pedestrians flow on stairways at busy suburb rail transit station in India, 14th World Conference on Transport Research, Tongji University, Shanghai, China during 10-15 July 2016.
44. Chaitrali Shirke, G. J. Joshi, V. Kandala and S. S. Arkatkar, Transit Oriented Development and Its Effect on Mode Choice Behaviour of People: A Case Study of Mumbai Metro Line – I, 14th World Conference on Transport Research, Tongji University, Shanghai, China during 10-15 July 2016.
45. Srinivas Reddy, Akhilesh Chepuri, Shriniwas Arkatkar and Gaurang J. Joshi, Developing proximal safety indicators for assessment of un-signalized intersection - a case study in Surat, 14th World Conference on Transport Research, Tongji University, Shanghai, China during 10-15 July 2016.
46. Manraj Singh Bains, Pallav Kumar, Nipjyoti Bharadwaj and Shriniwas Arkatkar, Effect of Speed Limit Compliance on Roadway Capacity of Expressways in India: A case study of Delhi-Gurgaon Expressway, 14th World Conference on Transport Research, Tongji University, Shanghai, China during 10-15 July 2016.
47. Mathew Sonu, Ashish Dhamaniya, Shriniwas Arkatkar and G J Joshi, Conceptual Approach of Estimating PCU at Roundabouts, 14th World Conference on Transport Research, Tongji University, Shanghai, China during 10-15 July 2016.
48. Chaudhari A., Jiten Shah, Gaurang Joshi, and Shriniwas Arkatkar (2016) “Study of Pedestrian flow characteristics on crosswalk at mid-blocks in India”, In proceedings of 12th Conference of Transportation planning and implementation methodologies for developing countries (TPMDC), Mumbai, India.
49. Narayana Raju, Akhilesh Chepuri, Vinayaraj VS, Shriniwas S. Arkatkar, Gaurang Joshi (2016) “A Simulation Study for Improving the Traffic Flow Efficiency at an Oversaturated Intersection Coupled with BRT” In proceedings of 12th Conference of Transportation planning and implementation methodologies for developing countries (TPMDC), Mumbai, India.
50. Vinayaraj VS, Chaudhari A, Shriniwas Arkatkar and Gaurang Joshi (2016) Comparative Study of Pedestrian Flow Characteristics at Selected Midblock

Crosswalks in India, In proceedings of 12th Conference of Transportation planning and implementation implementation methodologies for developing countries (TPMDC), Mumbai, India.

51. Pallav Kumar, Joyjeet Chakraborty, Ayush Mishra, Shriniwas Arkatkar, Gaurang Joshi, Ashish Bhaskar (2016) “Comparative study of PCU estimation methods on Multilane Urban roads in India”. In proceedings of 12th Conference of Transportation planning and implementation methodologies for developing countries (TPMDC), Mumbai, India.
52. Chetan Kumar, Akhilesh Chepuri, Shriniwas Arkatkar, Gaurang Joshi. (2016) “Travel Time Reliability Analysis on selected bus routes of Mysore public transportation system using GPS data”. In proceedings of 12th Conference of Transportation planning and implementation methodologies for developing countries (TPMDC), Mumbai, India.
53. Nipjyoti Bharadwaj, Shriniwas S. Arkatkar, Ashish Bhaskar, Gaurang Joshi (2016) “Expressing Traffic flow on Intercity Expressways in India: lane vs. directional traffic flow behaviour”. In proceedings of 12th Conference of Transportation planning and implementation methodologies for developing countries (TPMDC), Mumbai, India.

2017

54. Jiten H. Shah, Gaurang J. Joshi, Shriniwas S. Arkatkar, Manoranjan Parida, Impact of Human Factors and Functional Characteristics of Location On Walking Speed At Stairway Facility, Accepted for presentation in the 96th Annual Transportation Research Board (TRB) meeting at Washington DC, USA, January 8-12, 2017.
55. Narayana Raju, Pallav Kumar, Akhilesh Chepuri, Shriniwas S. Arkatkar, Gaurang Joshi, Calibration of Vehicle Following Models Using Trajectory 2 Data Under Heterogeneous Traffic Conditions, accepted for presentation in the 96th Annual Transportation Research Board (TRB) meeting at Washington DC, USA, January 8-12, 2017.
56. Avinash R. Chaudhari, Jiten H. Shah, Shriniwas S. Arkatkar, Gaurang J. Joshi, Manoranjan Parida, Examining Effect of Individual Characteristics On Walking Speed At Un-Signalized Mid-Block Crossings, Accepted for presentation in the 96th Annual Transportation Research Board (TRB) meeting at Washington DC, USA, January 8-12, 2017.
57. Pallav Kumar, Krishnanunni, Shriniwas S. Arkatkar, Gaurang J. Joshi, Examining Microscopic and Macroscopic Traffic Flow Parameters at Diverging Section On Multilane Urban Roads in India, accepted for presentation in the 96th Annual Transportation Research Board (TRB) meeting at Washington DC, USA January 8-12, 2017.
58. Pallav Kumar, Shriniwas S. Arkatkar, Gaurang J. Joshi, Ashish Dhamaniya, New Methodology For Estimating PCU on Multi Lane Urban Roads under Mixed Traffic Scenario Based On Area Occupancy, Accepted for presentation in the 96th Annual Transportation Research Board (TRB) meeting at Washington DC, USA January 8-12, 2017.

59. Raunak Mishra, Pallav Kumar, Shrinivas S. Arkatkar, Ashoke Kumar Sarkar, Gaurang J. Joshi, Novel Area Occupancy Based Methodology For PCU Estimation On Multilane Urban Roads Under Heterogeneous Traffic Scenario. Accepted for presentation in the 96th Annual Transportation Research Board (TRB) meeting at Washington DC, USA January 8-12, 2017.
60. Manraj Singh Bains, Shrinivas Arkatkar, K S Anbumani, Siva Subramaniam, Optimizing/Modelling Toll Way Operation Using Micro Simulation: Case Study Sanand Toll Plaza, Ahmedabad, Gujrat, India. Accepted for presentation in the 96th Annual Transportation Research Board (TRB) meeting at Washington DC, USA January 8-12, 2017.
61. Narayana Raju, Shrinivas S. Arkatkar, Gaurang Joshi, "Study of Vehicle Following Behavior Under Heterogeneous Traffic Conditions". Accepted for presentation in the Traffic Granular Flow Conference at Washington DC, USA July 19-22, 2017.
62. Raunak Kenny, Akhilesh Chepuri, Shrinivas Arkatkar, Gaurang Joshi and Srinivas Pulugurtha. Study of Transit Reliability on Bus Routes- A Case Study of Indian cities. Accepted for Presentation at 4th Conference of Transportation Research Group of India (CTRG 2017) to be held during 17th to 20th December 2017 at Bombay.
63. Rupali Zope, Vasudevan N, Shrinivas Arkatkar and Gaurang Joshi. Development of Household Travel Survey Instrument for Sustainable Transportation Planning-A Case Study of Indian cities. Accepted for Presentation at 4th Conference of Transportation Research Group of India (CTRG 2017) to be held during 17th to 20th December 2017 at Bombay.
64. Pallav Kumar, Narayana Raju, Shrinivas Arkatkar and Gaurang Joshi. Comparison of traffic stream models on multilane urban roads in India-A Case Study of Indian cities. Accepted for Presentation at 4th Conference of Transportation Research Group of India (CTRG 2017) to be held during 17th to 20th December 2017 at Bombay.
65. Deepa Dileep, Narayana Raju, Shrinivas Arkatkar and Gaurang Joshi. A Comparative Study of Micro-Level Traffic Flow Parameters On Two Expressways in India Using Vehicular Trajectory Data. A Case Study of Indian cities. Accepted for Presentation at 4th Conference of Transportation Research Group of India (CTRG 2017) to be held during 17th to 20th December 2017 at Bombay.
66. Narayana Raju, Ayush Mishra, Shrinivas Arkatkar and Gaurang Joshi. Functional Evaluation of Designed Truck Parking Terminal by means of Simulation. A Case Study of Indian cities. Accepted for Presentation at 4th Conference of Transportation Research Group of India (CTRG 2017) to be held during 17th to 20th December 2017 at Bombay.
67. Narayana Raju, Chakradhar Reddy, Pallav Kumar, Shrinivas Arkatkar and Gaurang Joshi. Methodology of Capturing Vehicular Following Behavior Under Heterogeneous conditions. A Case Study of Indian cities. Accepted for Presentation at 4th Conference of Transportation Research Group of India (CTRG 2017) to be held during 17th to 20th December 2017 at Bombay.
68. Avinash Chaudhari, Jiten Shah, Shrinivas Arkatkar, Gaurang Joshi and Manoranjan Parida. Evaluation of safety of margin of pedestrian at mid-blocks in India. A Case Study of Indian cities. Accepted for Presentation at 4th Conference of Transportation Research Group of India (CTRG 2017) to be held during 17th to 20th December 2017 at Bombay.

69. Vinayaraj V S, Avinash Chaudhari, Shriniwas Arkatkar, Gaurang Joshi and Manoranjan Parida. Comparative Study of Pedestrian Critical Gap Estimation Methods at uncontrolled Mid-block Crosswalks. A Case Study of Indian cities. Accepted for Presentation at 4th Conference of Transportation Research Group of India (CTRG 2017) to be held during 17th to 20th December 2017 at Bombay.
70. Rakesh Kulakarni, Akhilesh Chepuri, Shriniwas Arkatkar and Gaurang Joshi. Estimation of Saturation Flow at Signalised Intersections under Heterogeneous Traffic Conditions. A Case Study of Indian cities. Accepted for Presentation at 4th Conference of Transportation Research Group of India (CTRG 2017) to be held during 17th to 20th December 2017 at Bombay.
71. Nimit Palsanawala, Omkar Bidkar, Raunak Kenny, Rajendra Meena, Gaurang Joshi and Shriniwas Arkatkar. Planning and designing of truck parking terminal at Kandla port, Gujarat. A Case Study of Indian cities. Accepted for Presentation at 4th Conference of Transportation Research Group of India (CTRG 2017) to be held during 17th to 20th December 2017 at Bombay.
72. Joyjeet Chakraborty, Ayush Mishra, Pallav Kumar, Shriniwas Arkatkar and Gaurang Joshi. Effect of Shoulder Width on Traffic Flow Parameters on Two-Lane Undivided Roads. A Case Study of Indian cities. Accepted for Presentation at 4th Conference of Transportation Research Group of India (CTRG 2017) to be held during 17th to 20th December 2017 at Bombay.
73. Avinash Chaudhari, Jiten Shah, Shriniwas Arkatkar, Gaurang Joshi and Manoranjan Parida. Evaluation of Safety margin of pedestrian at mid-blocks in India. A Case Study of Indian cities. Accepted for Presentation at 4th Conference of Transportation Research Group of India (CTRG 2017) to be held during 17th to 20th December 2017 at Bombay.
74. Rupali Zope, Vasudevan N, Shriniwas Arkatkar and Gaurang Joshi. Development of Household Travel Survey Instrument for Sustainable Transportation Planning. A Case Study of Indian cities. Accepted for Presentation at 4th Conference of Transportation Research Group of India (CTRG 2017) to be held during 17th to 20th December 2017 at Bombay.
75. Bijul Raveendran, Sreejith Raveendran, Shriniwas Arkatkar and Lelitha Vanajakshi. Extraction of micro-level traffic characteristics using image processing technique under heterogeneous traffic. Accepted for Presentation at 4th Conference of Transportation Research Group of India (CTRG 2017) to be held during 17th to 20th December 2017 at Bombay.
76. Soorya V.B., Raunak Mishra, Shriniwas Arkatkar and Lelitha Vanajakshi. Exploring short term bus travel time prediction methods under mixed traffic conditions. Accepted for Presentation at 4th Conference of Transportation Research Group of India (CTRG 2017) to be held during 17th to 20th December 2017 at Bombay.
77. Manraj Singh Bains, Shriniwas Arkatkar, K S Anbumani and Siva Subramaniam. Optimizing Toll Plaza Operations for Reducing Operations Costs and Increasing Service Efficiency Using Micro Simulation Technique. Accepted for Presentation at 4th Conference of Transportation Research Group of India (CTRG 2017) to be held during 17th to 20th December 2017 at Bombay.
78. Chintan Advani, Smit Thakkar, Bijul Raveendran, Sachin Shah, Shriniwas Arkatkar and Ashish Bhaskar. A Wi-Fi/Bluetooth sensor-based approach of measuring

travel time and intersection-delay under mixed traffic conditions. Accepted for Presentation at 4th Conference of Transportation Research Group of India (CTRG 2017) to be held during 17th to 20th December 2017 at Bombay.

2018

79. Ayush Mishra, Akhilesh Chepuri, Shriniwas Arkatkar, Avijit Maji. Safety Evaluation of Unsignalized Intersection Using Hybrid Approach Involving Empirical and Simulation Data Sources. Accepted for presentation in the 97th Annual Transportation Research Board (TRB) meeting at Washington DC, USA January 7-11, 2018.
80. Narayana Raju, Pallav Kumar, Ayush Jain, Shriniwas Arkatkar, Gaurnag Joshi. Application of Trajectory Data for Investigating Vehicle Behavior in Mixed Traffic Environment. Accepted for presentation in the 97th Annual Transportation Research Board (TRB) meeting at Washington DC, USA January 7-11, 2018.
81. Pallav Kumar, Shriniwas Arkatkar, Gaurnag Joshi, Ashish Dhamaniya. Calibration of Traffic Stream Models on High Speed Urban Roads. Accepted for presentation in the 97th Annual Transportation Research Board (TRB) meeting at Washington DC, USA January 7-11, 2018.
82. Asir Khan, Sonu Mathew, Ashish Dhamaniya Shriniwas Arkatkar, Gaurnag Joshi. Roundabout Capacity in Heterogeneous Traffic Condition: Modification of HCM Equation and Calibration. Accepted for presentation in the 97th Annual Transportation Research Board (TRB) meeting at Washington DC, USA January 7-11, 2018.
83. Pallav Kumar, Narayana Raju, Shriniwas Arkatkar, Gaurnag Joshi. Microlevel Analysis on Traffic Flow Parameters at Work Zone Road Section Using Vehicular Trajectory Data. Accepted for presentation in the 97th Annual Transportation Research Board (TRB) meeting at Washington DC, USA January 7-11, 2018.
84. Jairam R, Anil Kumar, Shriniwas Arkatkar, Lelitha Vanajakshi. Performance Comparison of Bus Travel Time Prediction Models Across Indian Cities. Accepted for presentation in the 97th Annual Transportation Research Board (TRB) meeting at Washington DC, USA January 7-11, 2018.

24A. Papers Presented at National Conference

2018

1. Smit Thakkar, Chintan Advani, Sachin Shah, Shriniwas Arkatkar, Ashish Bhaskar. Exploring Performance of Wi-Fi/Bluetooth based sensors On Intercity Expressway: A Case Study of Ahmedabad- Vadodara Expressway (NE-1). Accepted for presentation at “International Conference on Recent Advances in Transport Infrastructure” being organized at MANIT Bhopal during 13th to 14th February 2018.
2. Nishant Pawar, Ninad Gore and Shriniwas Arkatkar. Safety Evaluation of Unsignalized Intersection Using Empirical Observations- A Pilot Study under Mixed Traffic Condition. Accepted for presentation at “International Conference on Recent Advances in Transport Infrastructure” being organized at MANIT Bhopal during 13th to 14th February 2018.

3. Manish Jain, Karan Patel, Shriniwas Arkatkar, Gaurang Joshi. Effect of gradient on speed characteristics of different types of vehicles on two lane rural road. Accepted for presentation at “International Conference on Recent Advances in Transport Infrastructure” being organized at MANIT Bhopal during 13th to 14th February, 2018.

2016

4. Chaudhary P M, Harsh Shah, Joshi G J and Arkatkar S S (2016) Use of Lime And Fly-Ash For Sub-Grade And Sub-Base Layers Of Flexible Pavements Of Rural Roads: Few Case Studies Of South Gujarat Region, International Conference on Sustainable Asphalt Pavement for Developing Countries (CONSAP) 11-12th March 2016 at CSIR-CRRI.
5. Aathira K Das., Vinayaraj V S Nivedita Khoker, Srinivas S Arkatkar and G.J. Goshi Operational analysis of Surat BRTS Phase- I, Stage-II corridor, RACE-16 at SVNIT, Surat, 2016.
6. Chaudhary P M, Harsh Shah, Joshi G J and Arkatkar S S (2016) Rural Road Pavement subgrade & sub base Improvement with the Use of lime, lime & fly ash and Geosynthetics in South Gujarat region, National Conference on Fifteen Years of PMGSY, 6-7, August, 2016 at IIT Roorkee.
7. Rakesh Kulakarni, AkhileshChepuri, ShriniwasArkatkar, Gaurang Joshi, (2016). “Estimation of Saturation Flow at Signalised Intersections under Heterogeneous Traffic Conditions”. , In Proceedings of 3rd Conference of Transportation Systems Engineering and Management (CTSEM), Bangalore, India
8. Vinayaraj VS, Vasudevan N, Chaudhari A, ShriniwasArkatkar and Gaurang Joshi. (2016). “Modelling of pedestrians Gap acceptance behaviour at midblock Crosswalks sections in Indian Metropolitans Cities”, In Proceedings of 3rd Conference of Transportation Systems Engineering and Management (CTSEM), Bangalore, India.
9. Vasudevan N., ShriniwasS. Arkatkar, GaurangJ. Joshi (2016). “Travel Demand Elasticity Analysis for Work Purpose Trips by Heterogeneous Travellers in Indian Metropolitan City, Surat”, In Proceedings of 3rd Conference of Transportation Systems Engineering and Management (CTSEM), Bangalore, India.
10. Srinivasula Reddy, AkhileshChepuri, Narayana Raju, Shriniwas S. Arkatkar, Gaurang Joshi (2016).”Safety Evaluation for Un-Signalized Intersections In Heterogeneous Traffic Conditions Using Simulation”, In Proceedings of 3rd Conference of Transportation Systems Engineering and Management (CTSEM), Bangalore, India
11. Akhilesh Chepuri,Jairam R, Shriniwas S. Arkatkar, Gaurang Joshi (2016).”Travel Time Reliability-Based Performance Indicators Assessment for Bus Routes Using GPS-Based Bus Trajectory under Mixed Traffic Conditions” In Proceedings of 3rd Conference of Transportation Systems Engineering and Management (CTSEM), Bangalore, India
12. Pallav Kumar, Shriniwas Arkatkar, Gaurang Joshi, Area Occupancy Based Optimized PCU values for multilane urban roads in India, accepted for presentation in 3rd CTSEM Conference held in Bangalore from 24th Nov 2016 to 25th Nov 2016.
13. Narayana Raju, Pallav Kumar, Chakradhar Reddy, Shriniwas S. Arkatkar, Gaurang Joshi, Methodology of Developing Vehicular Trajectories under Heterogeneous Traffic

Conditions, accepted for presentation in 3rd CTSEM Conference held in Bangalore from 24th Nov 2016 to 25th Nov 2016.

2015

14. Mathew Sonu, Ashish Dhamaniya , Shriniwas Arkatkar, Gaurang JOSHI, Time Occupancy as Measure of PCU for Roundabouts, RATE15 at SVNIT, Surat, 2015.
15. Krishnanunni M., Agnivesh P, Pallav Kumar, Gaurang J. Joshi, Shriniwas S. Arkatkar, Mixed Traffic Flow Characteristics at Diverging Section on Delhi-Gurgaon Expressway, RATE15 at SVNIT, Surat, 2015.
16. ChaitraliShirke, Shriniwas Arkatkar, Gaurang Joshi, Study of Lane Choice Behavior of Different Vehicle Classes on Delhi-Gurgaon Expressway, RATE15 at SVNIT, Surat, 2015.
17. Zope Rupali, Arkatkar S., Joshi G. J., "Smart and Sustainable Mobility Solution in Urban Areas:A comparative study and proposed research framework", National Conference of Sustainable and Smart Cities (SSC-15), SVNIT, Surat, P 51-59, 2015.
18. ShirkeChaitrali, G. J. Joshi, Vijaya Lakshmi Kandala, Shriniwas Arkatkar, Raghu Naik " Overview of smart city concept and its implementation in India" National Conference on Sustainable & Smart Cities -2015 (SSC-15), CED, NIT Surat, India,2015

2014

19. Jabeena, M, Joshi, G. J., Arkatkar, S., Ravinder, K. "Study On Traffic Characteristics On Expressway - A Case Study Of Mahatma Gandhi Expressway" Colloquium on Transportation Systems Engineering and Management CTR, CED, NIT Calicut, India, 2014
20. AmolWagh, Joshi, G. J., "Study On Travel Time Reliability Indices For An Arterial Road In Surat City" Colloquium on Transportation Systems Engineering and Management CTR, CED, NIT Calicut, India, 2014
21. Jiten Shah, Joshi, G. J, PurnimaParida and S S Arkatkar "Pedestrian Flow Behavior Analysis For Stairway At Busy Suburban Rail Transit Station In India" Colloquium on Transportation Systems Engineering and Management CTR, CED, NIT Calicut, India, 2014
22. Manish Jain, S S Arkatkar and Joshi, G. J "Effect of road gradient on truck acceleration characteristic using mechanistic approach"Colloquium on Transportation Systems Engineering and Management CTR, CED, NIT Calicut, India, 2014

2013

23. Vijay Dhale and Shriniwas Arkatkar, "Empirical Study of Pedestrian Flow Characteristics in India" 6th Research Symposium on Urban Mobility India, Institute of Urban Transport, 2013.

2012

24. Behara, Krishna Nikhil Sumanth, Arkatkar, Shriniwas S., and Sarkar, Ashoke Kumar,A Composite Index to Measure the Perceived Inadequacy of Public Transportation, 5th Research Symposium on Urban Mobility India, Institute of Urban Transport, 2012.

25. JhaKartikeya and Shriniwas Arkatkar “Univariate Time Series Modeling for Traffic Volume Estimation” Proceedings of the National Conference on “National Conference on Urban Mobility-Challenges, Solutions and Prospects, IIT Madras July 13-14, 2012.
26. BalajiPonnu, RavikiranPuvvala and Shriniwas Arkatkar “Traffic Flow Modeling of the Delhi Gurgaon Expressway- An Empirical and a Simulation Approach” Proceedings of the National Conference on “National Conference on "Urban Mobility - Challenges, Solutions and Prospects", IIT Madras July 13-14, 2012.
27. JhaKartikeya and Shriniwas Arkatkar “Traffic Forecasting Techniques for Projecting Vehicular Population in India” Proceedings of the National Conference and workshop on “Recent Advances in Traffic Engineering” at SVNIT Surat, India, June 7-9, 2012.
28. Singh Praveen, Gowda K.S., Arkatkar S.S. and Sarkar A.K. “Pedestrian gap acceptance behaviour analysis At midblock sections” Proceedings of the National Conference and workshop on “Recent Advances in Traffic Engineering” at SVNIT Surat, India June 7-9, 2012.

2009 and Before

29. Shriniwas S. Arkatkar “Analysis of Heterogeneous Traffic Flow Using Microscopic Simulation Technique” National Symposium on Innovations and Advances in civil Engineering, March 16-17, 2012, GGCT, Jabalpur, India, 29-40.
2009
30. Shriniwas S. Arkatkar and V. ThamizhArasan “Simulation of Heterogeneous Traffic Flow for Developing Capacity Guidelines for Intercity Roads” **Student Symposium on Research in Civil Engineering**. March 5–6, 2009, **IIT Madras**, India – (**Best Paper Award**).
31. V. Thamizh Arasan and Shriniwas S. Arkatkar, “*Effect of Gradient on Vehicles of Heterogeneous Traffic on Intercity Roads*” National Conference on **Sustainable Urban Transportation: Issues and Management Strategies** at **SV National Institute of Technology, Surat**, during 28-29 December 2007, pp. II1-7.
32. V. Thamizh Arasan and Shriniwas S. Arkatkar , “*Capacity Standards for Intercity Roads*” National Workshop on **Characterisation of Urban Road Traffic**, **IIT Madras, Chennai, India**, 9-10 March, 2007 pp 47-62.
33. V. Thamizh Arasan and Shriniwas S. Arkatkar, “*Study of Heterogeneity of traffic on High Speed Roadways Using Computer Simulation*“ was published in the proceedings of a National Seminar on “**High Speed Road Corridors** ” held at New Delhi, Organized by **Indian Roads Congress**, during 23-24 September 2005.
34. Shriniwas S. Arkatkar, “*Environmental Planning as a Tool GIS-A Paradigm Shift*” was published in the proceedings of a National Seminar on “**Urban Environmental Management**” held at **PeriyarManiammai College of Technology** for Women, during 10-11 February 2003
35. Shriniwas S. Arkatkar, “*Flood & storm water management in urban areas: need for retrofitting approach* ” was published in the proceedings of a National Seminar on “**Urban Environmental Management**” held at **PeriyarManiammai College of Technology** for Women, during 10-11 February 2003

36. Shrinivas S. Arkatkar, “*Environmental Planning as a Tool Through RS and GIS-A case Study*” was published in the proceedings of a National Seminar on “**Industrial pollution Control & Environmental Management**” held at **SV university, Tirupati**, during 22-23 November-2002.
37. Shrinivas S. Arkatkar, “*Applications of Geomatics in urban planning*” was presented & published in the proceedings of a National Conference on “**GEOMATICS-2002**” held at Bharthidasan University, **Tiruchirrapalli**, during 18-20 September 2002.
38. Shrinivas S. Arkatkar & Santosh S. Kolte, “*Industrial Pollution Control by Preparation of Industrial Zoning Atlas*” was presented & published in the proceedings of a National Seminar on “**Pollution Prevention and Control in India**” held at **VNIT, Nagpur**, during 2-3 March 2002.
39. Santosh S. Kolte&Shrinivas S. Arkatkar, “*Prevention of Natural Water Pollution by Utilization and Reuse of Industrial Effluents-A Case Study*” was presented & published in the proceedings of a National Seminar on “**Pollution Prevention and Control in India**” held at **VNIT, Nagpur**, during 2-3 March 2002.
40. Shrinivas S. Arkatkar &Anurag A. Kandya, “*GIS & its Environmental Applications*” was presented & published in the proceedings of a National Seminar on “**Industrial Pollution and Environmental Degradation**” held at **PSG College of Technology, Coimbatore** during 14-15 September 2001.
41. Anurag A. Kandya&Shrinivas S. Arkatkar, “*Natural Resource Management with Remote Sensing Techniques*” was presented & published in the proceedings of a National Seminar on “**Industrial Pollution and Environmental Degradation**” held at **PSG College of Technology, Coimbatore** during 14-15 September 2001.

24 B. Reviewer for the following Journals and Organization

- a. Journal of Transportation Engineering, ASCE.
- b. Transportation Research Part A, Elsevier.
- c. European Transport Research Review- An Open Access Journal, Springer.
- d. Transport, Taylor and Francis
- e. European Transport
- f. International Journal of Civil and Architecture, David Publishing House, USA
- g. NPTEL, IIT Madras
- h. International Journal of Advances in Engineering Sciences and Applied Mathematics
- i. Proceedings of EASTS
- j. Transportation Letters
- k. Case Studies in Transport Policy, Elsevier.
- l. Transportation in Developing Economies, Springer
- m. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations (Taylor and Francis)
- n. Journal of Traffic and Transportation Engineering, Elsevier
- o. Transportmetrica B: Transport Dynamics

24 C. Editorial Board Member

1. Modern Traffic and Transportation Engineering Research
2. International Journal of Traffic and Transport Engineering

3. Guest Editor for a special issue in Transportation Letters

25. International Conferences Attended for Presenting Paper in Other Countries

1. Applications of Advanced Technology in Transportation, August 13-16, 2006, Chicago, **USA**, oral presentation.
2. 20th European Modeling and Simulation Symposium, September 17–19, 2008, Campora-San-Giovaani, Amantea, **Italy** - oral presentation.
3. International Scientific Conference on Mobility and Transport, 12 & 13 May 2009, Munich, **Germany** oral presentation.
4. 10th Eastern Asia Society for Transportation Studies (EASTS) conference, 9-12, September 2013 at Taipei, **Taiwan**- oral presentation.
5. 94th TRB Annual Meeting 11-15 January, 2015 in **USA**.
6. 11th EASTS conference 11-15 September, 2015 in **Philippines**.
7. 95th TRB Annual Meeting 10-14 January, 2016 in **USA**.
8. 96th TRB Annual Meeting 8-11 January, 2017 in **USA**.

26. Team Member of Organizing Committee for the Events at IIT Madras:

1. National Workshop on, "Characterization of Urban Road Traffic" March 9-10, 2007
2. "Recent Advances in Transportation Engineering" held at IIT Madras during 10-12, January, 2007.
3. "Road Transportation Planning (ROADTRAP)" workshops organized at IIT Madras in November and February, 2009.
4. "Sustainable Urban Transport Planning" workshop organized at IIT Madras during 24-28, August 2009.

27. Consultancy Projects at SVNIT Surat, BITS Pilani and IIT Madras:

1. Traffic Impact Study for Major Star-Hotel & Commercial Complex, ITC Limited.
2. Quality Checking of Pavement Works of National Highway, National Highways Authority of India.
3. Feasibility Study for Elevated Corridor in Tirupati, Municipal Corporation, Tirupati.
4. Scrutiny of DPRs for PMGSY roads in the State of Rajasthan, Government of India

5. Member, National Quality Monitoring Committee for PMGSY Roads at NRRDA, New Delhi.
6. Road Safety Audit for NH-11 (National Highway Authority of India)
7. Third Party Inspection and quality monitoring of roads constructed, repaired by Surat Municipal Corporation (Since July 2014)
8. Third Party Inspection and quality monitoring of construction of road from Kirit Oil mill to near check post via Hindu Crematorium at Ghoghala, Diu. (2014-2015)
9. Third Party Inspection and quality monitoring of construction of Surface Course of Nagoa Road, Diu. (Since January 2015)
10. Third Party Inspection and quality monitoring of roads constructed, repaired by Surat Urban Development Authority (SUDA) (Since January 2015)
11. Third Party Inspection and quality monitoring of approach roads constructed, for Tad Bridge in Diu (Since March 2015)
12. Professional services for Design and estimation of ONGC road from Muler to GGS-V in Gandhar field (7.2 km)
13. Professional services for Design Olpad-Surat State Highway (20 km)
14. Professional services for layer wise investigation of road failure for Pali-Beawar NH section for L & T IDPL.
15. Road Safety Audit and Quality Assurance for PMGSY roads in Surat Panchayat, Roads and Building Department of Government of Gujarat.
16. Performance Evaluations for New Technology Projects (21) of Rural roads under PMGSY for the State of Gujarat (August,2015 onwards)
17. Professional services for Feasibility of Commissioning of Truck Parking Lot at Kandla Port Trust (KPT)
18. Professional services for Design and estimation of ONGC road at Hazira (2.2 km)
19. Professional services for Preparing a Design Manual for Surat City-Surat Municipal Corporation (SMC) – Preparation of templates for mid-block and intersections for consistent street planning and design practices in Surat city
20. Road Safety Audit and Quality Assurance for State Highways and Major District Roads in Surat Circle PWD, Roads and Building Department of Government of Gujarat.
21. Providing consultancy for comprehensive planning-Engineering design for rigid and flexible pavements on both side of existing canal, R.C.C conduit for existing canal

section etc. and allied works from Pal R.T.O junction to Amroli - Sayan road (up to ring road) via park in West zone of Surat city.

22. Providing consultancy for Engineering design for rigid and flexible pavements on either side of existing canal, storm water drainage network etc. and allied works from Anuvrat Dwar to Surat- Dumas road via G.D. Geonka school & from Sachin-Magdhalla road (Mangalam Heights) to Jamanaba Park in Surat city.
23. Providing consultancy for comprehensive planning & Engineering design for rigid and flexible pavements on either side of existing canal, storm water drainage network etc. and allied works from BRTS Panas-Breadliner circle-Soham circle up to Bhimrad village (length of corridor: 4.1km), in Surat Municipal Corporation.

28.Awards and Recognitions

1. Achieved first rank in M. Tech. (Urban Planning) course, Visvesvaraya Regional College of Engineering, Nagpur, Maharashtra, in all the semesters;
2. Received Indian Roads Congress Medal for outstanding paper on Road Research sponsored by Bihar PWD. Paper Title- Enhancing the Accuracy of Estimation of Passenger Car Unit for Vehicles of Heterogeneous Traffic, published in Highway Research Journal;
3. Received Indian Roads Congress Commendation Certificate for Paper Title- Effect of Upgrade and its length on PCU of Vehicles in Heterogeneous Traffic, published in Highway Research Journal;
4. Received 'Best Paper Award' in the Student Symposium on Research in Civil Engineering (SSRCE-09). March 5–6, 2009, IIT Madras, India;
5. Received "Best Poster Award" in the 4th Conference of Transportation Research Group (TRG) of India held at IIT Bombay during 17-20 December 2017.
6. Guest editor for a special issue on the Transportation Letters; The International Journal of Transportation Research (Taylor and Francis);
7. Member, PMGSY State Technical Agency (STA), National Rural Roads Development Agency (NRRDA), Ministry of Rural Development, Government of India;
8. Member, WCTRS Special Interest Group on Intelligent Transport Systems (ITS);
9. Member, WCTRS Special Interest Group on Infrastructure Operation and Traffic Management in Developing Countries;
10. Member, WCTRS Special Interest Group on Traffic Management, Operations and Control;
11. Editorial board member of Modern Traffic and Transportation Engineering Research
12. Editorial board member of International Journal of Traffic and Transport Engineering
13. Executive Secretary, Transportation Research Group India;

14. Governing Council Member, Institute of Urban Transport (IUT), Ministry of Urban Development, Government of India.

29. Short Term Courses/Workshops/Programmes Organized:

1. Co-coordinated a major event ROBOCON-04, while working as the lecturer, in Department of Civil Engineering, Institute of Technology, Nirma University, Ahmedabad, Gujarat. It's an event at National level in the field of automation and robotics to select the best team for representing India, at Asia-Pacific level in 2004.
2. Co-coordinated a two-day National seminar on "Sustainable Transportation System Planning" during 21-22 March 2002 organized by Civil Engineering Department, Nirma Institute of Technology, Ahmedabad.
3. Co-coordinated a Six-day Continuing Education Programme on "Applications of RS & GIS In Civil Engineering" during 12-17 August 2002 organized by Civil Engineering Department, Nirma Institute of Technology, Ahmedabad.
4. Coordinating a two weeks Short Term Training Program on "Recent advances in Studies of Traffic Engineering" during 30th June to 11th July 2014, organized by Civil Engineering Department, SVNIT Surat.
5. Coordinated one-day workshop on "Macroscopic Pedestrian Flow Modeling" at SVNIT Surat on 28th June 2014.
6. Coordinated a Five-Days Self-Sponsored Program on "VISSIM Micro-Simulation Software Training" during 23-27 March 2015 at SVNIT Surat.

29A. International/National Conferences Organized:

1. Co-chair, 4th Conference of Transportation Research Group (TRG) of India held at IIT Bombay during 17-20 December 2017.
2. Convener, Second National Conference and Workshop "Recent Advances in Traffic Engineering" (RATE-2015) during 3-4 July 2015.
3. Convener, Third National Conference and Workshop "Recent Advances in Traffic Engineering" (RATE-2018) during 11-12 August 2018.

29B. Short Term Courses Attended:

4. Attended Indo-US Workshop on "Recent Advances in Transportation Engineering" held at IIT Madras during 10-12, January, 2007.
5. Attended the five-day workshop on "Road Transportation Planning" held at IIT Madras in February, November, 2008.
6. Attended the two-day seminar on "Urban Transportation Environment" held at MS University Baroda, Gujarat, during 13-14 March, 2004.
7. Attended training on "GIS and its Applications" at Regional Remote Sensing Service Centre, Nagpur, Indian Space Research Organization (ISRO) in May 2001.

8. Attended training on “GIS and its Applications” at Remote sensing & Communication Centre, Gandhinagar in June 2002.
9. Attended a Summer School (STTP) on “Use of GIS in Ground Water Modeling” at Malaviya National Institute of Technology, Jaipur during 16-17 June 2003.
10. Attended a Workshop on “Advance Building Services” at Nirma Institute of Technology, Ahmedabad during 29-30 March 2003.
11. Short Term training Programme approved by AICTE/ISTE on “Evaluation, Repair and Rehabilitation of Distressed Structures” during Nov. 26 to Dec 08, 2001 held at Nirma Institute of technology, Ahmedabad.
12. Short Term training Programme approved by AICTE/ISTE on “Mechanization for Construction Projects” during Dec 18-29, 2001 held at Nirma Institute of technology, Ahmedabad.
13. Attended a preliminary level training on “GIS and its Applications” at Regional Remote Sensing Service Centre, Nagpur, Indian Space Research Organization (ISRO) in May 2001.

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Place: Surat

Sd/-

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