

National Institute of Technology, Tiruchirappalli: Performa for CV of Faculty/ Staff Members

Curriculum Vitae



Brief Profile:

Dr Darshana O is an Assistant Professor in the Department of Civil Engineering, National Institute of Technology Tiruchirappalli, Tamil Nadu, India. She is the recipient of prestigious ‘Young Women Engineer Award’ by Institution of Engineers (India), Tiruchirappalli Local Centre in 2021. Before joining NIT Trichy, she worked as a Post Doctoral Research Fellow at Indian Institute of Technology Palakkad. She received her Ph.D. in Civil Engineering from Indian Institute of Technology Bombay, India in 2018 and Masters in Transportation Engineering and Planning from Sardar Vallabhbhai National Institute of Technology Surat, India in 2014. She completed her Bachelor of Engineering from Government Engineering College Kozhikode, Calicut University, India in 2012. She was the First rank holder in M. Tech and Fourth rank holder in B.Tech.

Her research interests include modeling user perception, traffic operations, traffic engineering and management and road safety. Her doctoral research focused on modeling user perceived level of service and delay at signalized intersections under heterogeneous traffic conditions. Her research contributed significantly to the development of capacity and level of service analysis methods for signalized intersections with heterogeneous and non-lane-based traffic conditions and have been appropriately incorporated in the “Indian Highway Capacity Manual (Indo-HCM)” developed through a multi institute research study coordinated by CSIR-CRRI under 12th five year plan. She has published in a number of leading journals, including *Transpometrica*, *Transport Research Procedia*, *Transportation in Developing Countries* etc. She is also member of professional bodies like Transportation Research Group of India (TRG), Indian Road Congress (IRC), World Conference on Transport Research Society (WCTRS), International Association of Engineers (IAENG),

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Eastern Asia Society for Transportation Studies (EASTS) etc.

1. Name : Darshana O
2. Designation: Assistant Professor
3. Office Address: Department of Civil Engineering
NIT Tiruchirappalli
4. Telephone (Direct) (Optional):
Telephone
Extn (Optional): 3163
Mobile (Optional): 8129941687
5. Email (Primary): darshana@nitt.edu Email (Secondary) :
darshanavyshnavam@gmail.com
6. Field(s) of Specialization: Transportation
Engineering
7. Employment Profile

Job Title	Employer	From	To
Assistant Professor	National Institute of Technology Tiruchirappalli	May 2020	Till date
Post Doctoral Fellow	Indian Institute of Technology Palakkad	October 2019	May 2020
Assistant Professor	MEA Engineering College, Perinthalmanna	November 2018	October 2019

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8. Academic Qualifications (From Highest Degree to High School):

Examination	Board / University	Year	Division/ Grade	Subjects
Ph.D. in Civil Engineering	Indian Institute of Technology Bombay	2018		
M. Tech in Civil Engineering	Sardar Vallabhbhai National Institute of Technology Surat	2014	First rank	Transportation Engineering and Planning
B. Tech in Civil Engineering	Government Engineering College, Kozhikode	2012	Fourth rank in Calicut University	

9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	To
Faculty Advisor	Fine arts club	August 2021	Till date
Member	Transport Advisory Committee	December 2020	Till date

10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	To

11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2021	Young Women Engineer Award	Institution of Engineers (India), Tiruchirappalli Local Centre
2020	Best Paper Award	7 th Conference on Transportation Systems Engineering and Management (CTSEM-2020)
2017	Best Poster Award	Urban Mobility India (UMI)

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		Conference
2014	First rank in M. Tech in Transportation Engineering and Planning	Sardar Vallabhbhai National Institute of Technology Surat
2014	Best Paper Award	Transportation Young Researchers Symposium (TYRES) from NIT Warangal
2014	Best Paper Award	International Conference on Recent Trends in Engineering & Technology (ICRTET)
2012	Fourth rank in B. Tech in Civil Engineering	Calicut University
2012	Best Paper Award	National Level Technical Symposium, Anna University

12. Fellowships

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)
2020	Institute Post Doctoral Fellow	Indian Institute of Technology Palakkad	October 2019	May 2020

13. Details of Academic Work

(i) Curriculum Development

(ii) Courses taught at Postgraduate and Undergraduate levels

Postgraduate level:

- CE604 Transportation Planning
- CE616 Waterway Transportation

Undergraduate level

- CEPC28 Railway, Airport and Harbour Engineering
- CEPE21 Transportation Planning
- CEIR11 Basic Civil Engineering
- CELR12 Survey Laboratory

(iii) Projects guided at Postgraduate level

Sl. No.	Name	Title	Year
1.	Banavathu Nagu Naik	Modelling pedestrian perceived level of service of sidewalks: A structural equation approach	2020-21
2.	Metage Rameshwar Manikrao	Modelling user perceived service quality of Indian railway platforms using structural equation modelling and artificial neural network	2020-21

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3.	Devalalika Sanjay	Vishal	Modelling customer's perceived service quality and satisfaction of online cab services in India	2020-21
4.	Abhinav Mishra		Determining safety aspects of differential speed limit on Indian roads	2021-22
5.	Buddiga Durga Prasad	Venkata	Modelling risky riding behaviour of motorized two-wheeler riders	2021-22
6.	Dindigala Prem		Mode choice modelling of shopping trips considering heterogeneity among individuals	2021-22
7.	Keloth Chowhan	Akhil	Modelling in-vehicle distracting activities and crash risk among car drivers	2021-22
8.	Matavalam Uttej		Modelling the speeding behaviour of motorized two-wheeler riders using structural equation approach	2021-22
9.	T Sai Kiran Goud		Modelling the effect of safety attitudes and risk perceptions on pedestrian behaviour	2021-22

(iv) Other contribution(s)

14. Details of Major R&D Projects

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed
Development of Trip Generation Manual	CSIR-CRRI	December 2021	December 2022	Ongoing
Investigating Motorized Two-Wheeler Users' Riding Pattern, Attitudes and Perception Towards Safety: A Step Towards Safer Road	NIT Tiruchirappalli	March 2021	March 2023	Ongoing

15. Number of PhDs guided

Name of the PhD Scholar	Title of PhD Thesis	Role(Supervisor/ Co-Supervisor)	Year of Award

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16. Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc. (mentioning the role)

Date (s)	Title of Activity	Level of Event (International/ National/ Local)	Role (Participant/ Speaker/ Chairperson, Paper presenter, Any other)	Event Organized by	Venue
17-21 Dec 2021	6 th Conference of Transportation Research Group of India	International	Organizing committee member, Presenter	NIT Trichy and TRG India	Trichy
26,27 August 2021	8 th International Conference on Transportation Systems Engineering & Management (CTSEM 2021)	International	Reviewer, Presenter	NIT Calicut	Online
17-17 August 2020	Recent Advancements in Civil Engineering Research (RACER 2020)	National	Chairman of Review Panel	MEA Engineering College, Malappuram, Kerala	Online

17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convenor / Co-Convenor)

Title of Activity	Level of Event (International/ National/ Local)	Date (s)	Role	Venue

18. Invited Talks delivered

Topic	Date	Inviting Organization
Tools for Transportation Data Analysis & Modelling (TTDAM) –	1/06/2021	NIT Calicut

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Ordered Probit Modelling		
Tools for Transportation Data Analysis & Modelling (TTDAM) – Ordered Probit Modelling	23/03/2021	NIT Calicut
Incorporating User Perception into Level of Service of Signalized Intersection	17/08/2020	MEA Engineering College, Malappuram, Kerala

19. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date
Life Member	Transportation Research Group of India (TRG)	20145, 28/11/2021
Member	Eastern Asia Society for Transportation Studies (EASTS)	RM-21-20-0194, 07/09/2021
Life Member	Indian Road Congress (IRC)	102738, 25/01/2021
Associate Member	Institution of Engineers India (IEI)	AM1975415, 10/10/2021
Member	International Association of Engineers (IAENG)	230820, 04/02/2019

20. Academic Foreign Visits

Country	Duration of Visit	Programme
Sri Lanka	1 week	Conference
USA	1 week	Conference

21. Publications

(A) Refereed Research Journals:

Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the

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						Journal (Optional)
Rameshwar Metage and Darshana Othayoth	Modelling User Perceived Service Quality of Indian Railway Platforms Using Structural Equation Modeling	Journal of the Eastern Asia Society for Transportation Studies	14	341-353	2022	
Darshana Othayoth and K.V. Krishna Rao	Investigating the Relation between Level of Service and Volume-to-Capacity ratio at Signalized Intersections under Heterogeneous Traffic Condition	Transportation Research Procedia	48	2929-2944	2020	
Darshana Othayoth, K.V. Krishna Rao and B.K.Bhavathrathan	Modeling User Perceived Level of Service at Signalized Intersection	Transpometrica Part A: Transport Science	16(3)	1294-1309	2020	
Darshana Othayoth and K.V. Krishna Rao	Assessing the Relationship between Perceived Waiting Time and Level of Service at Signalized Intersection under Heterogeneous Traffic Condition	Journal of Asian Transport Studies	10024		2020	
Darshana	Estimation of	Journal of	69(3)		2018	

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Othayoth and K.V. Krishna Rao	Stopped Delay to Control Delay Conversion Factor and Development of Delay Model for Heterogeneous Traffic	European Transport/ Transport Europei				
Darshana Othayoth and K.V. Krishna Rao	Factors Influencing Level of Service for Motorized Vehicles at Signalized Intersection under Mixed Traffic Condition	Transportation in Developing Economies	3(2)		2017	
Darshana Othayoth and B. K. Katti	Modeling Trip Distribution using Fuzzy Logic Approach	Transportation in Developing Economies	3(2)		2017	

(B) Conferences/Workshops/Symposia Proceedings

Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Page numbers	Conference Theme	Venue	Year
Teena Roy, Darshana Othayoth and B. K. Bhavathrathan	Age and gender differences in motorised two-wheeler safety perceptions	6th Conference of Transportation Research Group of India (CTRG 2021)		6th Conference of Transportation Research Group of India (CTRG 2021)	Trichy	2021
Banavathu Nagu Naik and Darshana Othayoth	Modelling pedestrian perceived level of service of sidewalks using	6th Conference of Transportation Research Group of India (CTRG 2021)		6th Conference of Transportation Research Group of India (CTRG 2021)	Trichy	2021

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	structural equation approach					
Vishal Devalalika and Darshana Othayoth	User perceived service quality and satisfaction of Indian Railway platforms: A case study of Tiruchirappalli Railway Junction	6th Conference of Transportation Research Group of India (CTRG 2021)		6th Conference of Transportation Research Group of India (CTRG 2021)	Trichy	2021
Rameshwar Metage and Darshana Othayoth	Modelling User Perceived Service Quality of Indian Railway Platforms Using Structural Equation Modeling	14th International Conference of Eastern Asia Society for Transportation Studies (EASTS 2021)		14th International Conference of Eastern Asia Society for Transportation Studies (EASTS 2021)	Online	2021
Vishal Devalalika and Darshana Othayoth	Modelling Customer's Perceived Service Quality and Customer behavior towards Online Cab Services in India	14th International Conference of Eastern Asia Society for Transportation Studies (EASTS 2021)		14th International Conference of Eastern Asia Society for Transportation Studies (EASTS 2021)	Online	2021
Rameshwar Metage and Darshana Othayoth	User perceived service quality of Indian Railway platform using Structural Equation modelling and	8th International Conference on Transportation Systems Engineering and Management (CTSEM 2021)		8th International Conference on Transportation Systems Engineering and Management (CTSEM 2021)	Online	2021

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	importance-performance map analysis: A case study of Tiruchirappalli Railway junction					
Vishal Devalalikal and Darshana Othayoth	Artificial Neural Network for analyzing the customers perceived service quality and satisfaction of online cab services	8th International Conference on Transportation Systems Engineering and Management (CTSEM 2021)		8th International Conference on Transportation Systems Engineering and Management (CTSEM 2021)	Online	2021
Vishal Devalalikal and Darshana Othayoth	Modelling Customers Perceived Service Quality of Online Cab Services Using Structural Equation Modelling	7th Conference of Transportation Systems Engineering and Management (CTSEM 2020)		7th Conference of Transportation Systems Engineering and Management (CTSEM 2020)	Online	2020
Anisha Biswal and Darshana Othayoth	Mode Choice Modeling and Analysis of Influencing Factors in the Wake of COVID-19	13th International Conference on Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC 2020)		13th International Conference on Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC 2020)	Online	2020
Darshana Othayoth and K.V. Krishna Rao	Assessing the Relationship between Perceived Waiting Time and Level of	13th International Conference of Eastern Asia Society for Transportation		13th International Conference of Eastern Asia Society for Transportation	Colombo, Sri Lanka	2019

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	Service at Signalized Intersection	Studies (EASTS)		Studies (EASTS)		
Darshana Othayoth and K.V. Krishna Rao	Modeling User Perceived Level of Service at Signalized Intersection using Fuzzy Logic Approach	World Conference on Transport Research-WCTR 2019		World Conference on Transport Research-WCTR 2019	Mumbai, India	2019
Darshana Othayoth and K.V. Krishna Rao	Investigating the Relation between Level of Service and Volume-to-Capacity Ratio at Signalized Intersection	World Conference on Transport Research-WCTR 2019		World Conference on Transport Research-WCTR 2019	Mumbai, India	2019
Yogeshwar V. Navandar, Darshana Othayoth, Ashish Dhamaniya and D. A. Patel	Analysis of Level of Service at Manually Operated Toll Plaza using Fuzzy Logic Approach	World Conference on Transport Research-WCTR 2019		World Conference on Transport Research-WCTR 2019	Mumbai, India	2019
Darshana Othayoth and K.V. Krishna Rao	Modeling User Perceived Level of Service at Signalized Intersection under Heterogeneous Traffic Condition	98th Transportation Research Board Annual Meeting		98th Transportation Research Board Annual Meeting	Washington D.C., USA	2019
Darshana Othayoth and K.V. Krishna Rao	Modified Delay Model for Heterogeneous Traffic at Signalized Intersection	4th Conference of Transportation Research Group of India (CTRG)		4th Conference of Transportation Research Group of India (CTRG)	Mumbai, India	2017

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Darshana Othayoth and K.V. Krishna Rao	Importance-Satisfaction Analysis of the Determinants of Users' Perceived Level of Service at Signalized Intersection	National Conference on Roads and Transport (NCORT-2017)		National Conference on Roads and Transport (NCORT-2017)	Roorkee, India	2017
Darshana Othayoth and K.V. Krishna Rao	Modeling User Perceived Level of Service of Signalized Intersection using Fuzzy Logic	<i>Urban Mobility India (UMI) Conference</i>		<i>Urban Mobility India (UMI) Conference</i>	Hyderabad, India	2017
Darshana Othayoth and K.V. Krishna Rao	Statistical Analysis of User Perceived Level of Service at Signalized Intersection	<i>96th Transportation Research Board Annual Meeting</i>		<i>96th Transportation Research Board Annual Meeting</i>	Colombo, Sri Lanka	2017
Darshana Othayoth and K.V. Krishna Rao	Factors Influencing User Perception of LOS at Signalized Intersection under Mixed Traffic Condition	<i>12th Conference of Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC)</i>		<i>12th Conference of Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC)</i>	Mumbai, India	2016
Darshana Othayoth and B. K. Katti	Trip Distribution using Fuzzy Logic Approach	<i>3rd Conference of Transportation Research Group of India (CTRG)</i>		<i>3rd Conference of Transportation Research Group of India (CTRG)</i>	West Bengal, India	2015
Darshana Othayoth and B. K. Katti	Modelling Trip Distribution	<i>Colloquium on Transportation Systems</i>		<i>Colloquium on Transportation Systems</i>	Calicut, India	2014

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	using Fuzzy Logic in a Fast Developing Metropolitan City, Surat	<i>Engineering and Management (CTSEM)</i>		<i>Engineering and Management (CTSEM)</i>		
Darshana Othayoth, Ashu S. Kedia and B. K. Katti	A Comparative Trip Rate Analysis and Modelling Under Urban and Rurban Environment: A Case Study	<i>Transportation Young Researchers Symposium (TYRES)</i>		<i>Transportation Young Researchers Symposium (TYRES)</i>	Warangal, India	2014
Darshana Othayoth and B. K. Katti	Urban Trip Distribution Modelling using Composite Fuzzy Logic Approach in Metropolitan City Background – A Case Study of Surat	<i>International Conference on Recent Trends in Engineering & Technology (ICRTET)</i>		<i>International Conference on Recent Trends in Engineering & Technology (ICRTET)</i>	Cochin, India	2014
Darshana Othayoth, D and Kumkuma, I. P.	Traffic Forecasting and Estimation of Facilities at Beypore Port	<i>National Level Technical Symposium</i>		<i>National Level Technical Symposium</i>	Dindigul, India	2012

(C) Books & Monographs

Author(s)	Title of Book/Monograph	Name of Publishers	Year of Publication	ISSN/ISBN Number

22. Project Details List:

Ongoing Projects & Past Projects

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i. Ongoing Projects:

Sl. No	Project Title	Project Invigilator & Co PI	Project Area	Funding Agency
1.	Development of Trip Generation Manual	Darshana O (PI), Marisamynathan S (Co-PI)	Transportation	CSIR-CRRI
2.	Investigating Motorized Two-Wheeler Users' Riding Pattern, Attitudes and Perception Towards Safety: A Step Towards Safer Road	Darshana O (PI),	Transportation	NIT Tiruchirappalli

ii. Past / Completed Projects:

Sl. No	Project Title	Project Invigilator & Co PI	Project Area	Funding Agency	Completed Year