

Curriculum Vitae

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Praveen VAYALAMKUZHI

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EDUCATION

- **Doctor of Philosophy (Civil Engineering)** July 2017
Indian Institute of Technology (IIT) Madras, Chennai, India
Dissertation: 'Level of Safety of Multi-lane Divided Inter-City Highways under Heterogeneous Traffic Flow'
Supervisor: Prof. A. Veeraragavan
- **Master of Technology (Traffic & Transportation Engineering)** 2007- '09
Kerala University, Kerala, India (CGPA - 8.1 / 10)
Thesis: 'Intra-District Freight Modeling – A Case Study of Trivandrum District'
Supervisor: Prof. R. Sathikumar
- **Bachelor of Technology (Civil Engineering)** 2003- '07
Cochin University of Science & Technology, Cochin, Kerala, India (Marks - 74.5%)

AWARD

- **Berkeley Postdoctoral Association Professional Development Award 2019**
BPA Professional Development Award for postdocs at UC Berkeley is a one-time award to cover costs associated with presenting at a scientific or professional meeting.
- **CEA Best Student Award 2015**
For the Ph. D. student category in recognition of well-rounded performance in curricular, co-curricular and extra-curricular activities from the Civil Engineering Association (CEA), IIT Madras, Chennai.
- **Research Fellowship 2010-2014**
Research fellowship by Ministry of Human Resource Development, Government of India, from 2010 to 2014
- **KSCSTE Student Project Award 2009**
For the thesis work carried out in the Graduate level on Freight Demand Modeling, Kerala State

AREAS OF INTEREST

Highway Safety; Geometric Design of Highway; Traffic operations and planning

PROFESSIONAL EXPERIENCE

- **Postdoctoral Researcher** (Sept 2017 to till date)
Safe Transportation Research and Education Center, University of California, Berkeley, USA

- Involved in the project “Implementation of SPF Methods to Identify High Collision Concentration Locations” by California Department of Transportation, (Caltrans).
Duration of Project: June 01, 2017 – November 30, 2019
- Involved in the project “SPF Tool Enhancement” by California Department of Transportation, (Caltrans). Duration of Project: June 01, 2018 – June 01, 2019
- Involved in the project “Development of Crash Reduction Factors for Bicycle Related Safety Countermeasures” by California Department of Transportation, (Caltrans).
Duration of Project: June 01, 2018 – June 01, 2019
- **Half Time Teaching and Research Assistant** (Jul 2010 to Jul 2014)
Department of Civil Engineering, Indian Institute of Technology Madras, Chennai, India
 - Teaching assistance for Urban Transportation Planning, IIT Madras, Fall 2011
 - Research assistant in road safety related projects with Tamil Nadu State, India
- **Project Associate** (May 2011 to Sep 2011)
Department of Civil Engineering, IIT Madras, India
Conducted Road Safety Audit and analyzed field data and made recommendations for enhancing traffic safety in Tamil Nadu - as part of a project on “Road Safety Assessment of the Upgraded Roads for Tamil Nadu Road Sector Project”, Tamil Nadu, India.
- **Project Officer** (Feb 2010 to Jul 2010)
Department of Civil Engineering, IIT Madras, India
Conducted Road Safety Audit and analyzed field data and made recommendations for enhancing traffic safety in Tamil Nadu - as part of a project on “Road Safety Assessment of the Upgraded Roads for Tamil Nadu Road Sector Project”, Tamil Nadu, India.
- **Guest Lecturer (Undergraduate Evening Courses)** (Sep 2008 to Nov 2009)
College of Engineering, Trivandrum, India
- **Sub-Engineer** (Jan 2004 to Aug 2004)
 - Worked in the Udma Grama Panchayath under ‘Sector Reforms Project’, Govt. of India
 - Worked in the Chemnad Grama Panchayath under Swajaldhara II Project sponsored by the Rajiv Gandhi National Drinking Water Mission, Govt. of India.
- **Apprentice/Engineer In-Trainee** (Nov 2002 to Nov 2003)
 - Under Government of India
 - Bekal Resorts Development Corporation Limited, Kasaragod, India

LIST OF PUBLICATIONS

● Journal Publications

Published

1. Vayalamkuzhi P., and Amirthalingam V., (2016) Safety performance evaluation of multilane highways under heterogeneous traffic. *European Transport\TransportiEuropei, Issue 62, Paper no.1.*
2. Vayalamkuzhi P., and Amirthalingam V., (2016) Influence of geometric design parameters on safety under heterogeneous traffic flow, *Journal of Traffic and Transportation Engineering (English Edition), DoI: 10.1016/j.jtte.2016.05.006, Vol. 3(6), pp 559-570.*
3. Vayalamkuzhi P., and Amirthalingam V., (2016) Development of comprehensive crash models for four-lane divided highways in heterogeneous traffic condition, *Transportation Research Procedia, DoI: 10.1016/j.trpro.2016.11.117, Vol. 17C, pp. 626-635.*

4. Vayalamkuzhi P., and Sathikumar R., (2012) Road Freight Characteristics and Development of Intra-District Freight Model – A Case Study of Thiruvananthapuram District, *Indian Highways*, The Indian Road Congress, Vol. 39 (9), pp. 43 – 50.

- **International/National Conferences**

1. Salem, C., Vayalamkuzhi, P., Grembek, O., Medury, A., and Enschede, J., L., Process Mapping of Safety Applications in Transportation Organizations, Accepted for the 98th Annual Meeting Transportation Research Board, Washington D.C., United States, January 13 – 17, 2019.
2. Vayalamkuzhi P., and Amirthalingam V., Safety Performance Functions for Divided Four-Lane Inter-City Highway under Heterogeneous Traffic Flow, Presented in the 97th Annual Meeting Transportation Research Board, Washington D.C., United States, January 07 – 11, 2018.
3. Vayalamkuzhi P., and Amirthalingam V., Analysis on the level of safety of multi-lane rural highway under heterogeneous traffic condition, Presented in the 95th Annual Meeting Transportation Research Board, Washington D.C., United States, January 10 – 14, 2016.
4. Vayalamkuzhi P., and Amirthalingam V., Investigation on the influence of operational characteristics on safety performance of multilane rural highways, 18th EURO Working Group on Transportation, EWGT 2015, TU Delft, The Netherlands, July 14 – 16, 2015.
5. Vayalamkuzhi P., and Amirthalingam V., Development of Comprehensive Crash Models for Four-Lane Divided Highways in Heterogeneous Traffic Condition, 11th Transportation Planning and Implementation Methodologies for Developing Countries, TPMDC 2014, Mumbai, India, December 10-12, 2014.
6. Vayalamkuzhi P., and Sathikumar R., Intra- District Freight Modelling - A Case Study of Trivandrum District" 22nd Kerala Science Congress, Kerala Forest Research Institute, Kerala, January 28 – 31, 2010.
7. Vayalamkuzhi P., and Sathikumar R., A Study on Road Freight Characteristics – Thiruvananthapuram, 10th National Conference on Technological Trends, College of Engineering Trivandrum, November 06 –07, 2009.

CONFERENCE /SEMINAR/ WORKSHOP ATTENDED

- Participated in the “**Water Management Training Programme**” held on 16th and 17th January 2007 at Kasaragod by **Central Ground Water Board**, Kerala Region, Trivandrum under Ministry of Water Resources, Government of India
- Professional Training Programme on “**Geotechnical Investigations for Infrastructure Projects**” conducted by the Department of Civil Engineering, **College of Engineering Trivandrum**, Thiruvananthapuram, Kerala, 13 - 15 June 2007.
- Participated in the “**8th National Conference on Technological Trends**” held at **College of Engineering Trivandrum**, during 30th November and 1st December 2007
- National seminar on “**Application of Coir Geotextiles on Roads**” organized jointly by **Coir Board** and Department of Civil Engineering, **College of Engineering Trivandrum** on 27th May 2008
- Participated in the short term course on “**Familiarization of Artificial Neural Network and Fuzzy Systems**” organized by Department of Electrical Engineering, **College of Engineering Trivandrum**, Thiruvananthapuram, Kerala, 23 - 28 July 2008.
- Participated in the “**9th National Conference on Technological Trends**” held at **College of Engineering Trivandrum**, 21- 22 November 2008
- Associated and participated in the workshop on “**Using Science and Data in Road Safety Management**”, organized by the **Department of Civil Engineering, Indian Institute of Technology Madras**, Tamil Nadu, India, 15-16 February 2013.

- Attended Colloquium on “**Transportation systems Engineering & Management**” CSTEM 2014, organized by the **Department of Civil Engineering, National Institute of Technology Calicut**, Kerala, India, 12-13 May, 2014
- Participated in one day workshop on “**Urban transport management**” (UTM-2017), organized by Association of Bangalore University Highway Engineering Alumni (ABUHEA), Bangalore, India, 11 March 2017.

FIELD EXPOSURE

- Associated with the “**Road safety audit**” conducted by the **Department of Civil Engineering, Indian Institute of Technology Madras**, IITM Test Corridor, Tamil Nadu, India, during the year April 2013.
- Associated with the “**Road safety audit of upgraded roads**” conducted by the **Department of Civil Engineering, Indian Institute of Technology Madras**, TNRSP Roads, Tamil Nadu, India during the year 2010 – 2011.
- Associated with the seven professional training programmes on “**Road safety audit**” conducted by the **Department of Civil Engineering, Indian Institute of Technology Madras** for TNRSP ENGINEERS, Tamil Nadu, India (Feb 2010 – Jul 2010).
- Associated with the professional training programmes on “**Laboratory practice on highway materials**” and “**Laboratory practices in highway engineering**” conducted by the Department of Civil Engineering, College of Engineering Trivandrum, Kerala, India (Jul 2008, Nov 2008 & Nov 2009).
- Associated with the work related to **Scrutiny of Detailed Project Report (DPR)** for **PMGSY** Roads, Department of Civil Engineering, College of Engineering Trivandrum, Kerala, India (Jan 2008 – May 2009).
- Associated with the work of **condition survey, merlin, bump integrator and Benkelman beam deflectometer survey** as part of the project ‘Rural Roads Pavement Performance study’, Govt. of India (Apr 2008 – Jul 2009).
- Associated with the work of **field vane shear test** on Kuttanad clay as part of the Kerala State Council for Science and Technology (KSCSTE) Project on ‘Improving the Engineering Behavior of Kuttanad Clay using Preloading Technique’, Kerala, India (Oct 2008).
- Undergone three weeks internship at **L&T-RAMBOLL**, Chennai, India, as a part of M. Tech. curriculum (Jan 2009).

SOFTWARE

NLogit, SPSS, Stata, AutoCAD, M S Office, R, QGIS

OTHER RESPONSIBILITIES/SERVICES

- Co-director, Beyond Academia, University of California, Berkeley, 2019-‘20
- Reviewer, Transportation Research Board, Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, and Journal of Traffic and Transportation Engineering (English Edition)
- Board member, Berkeley Postdoctoral Association, University of California, Berkeley, 2018-‘19
- Member, Vice Chancellor for Research Advisory Committee on Postdoc Housing, University of California, Berkeley, 2018
- Committee member, Beyond Academia, University of California, Berkeley, 2018-‘19

- Member, Young Professionals in Transportation, San Francisco Bay Area
- Volunteer, Beyond Academia, University of California, Berkeley, 2018
- Associated with Civil Engineering Research Expo (CERE) 2016, IIT Madras
- Coordinator of Civil Engineering Research Expo (CERE), 2014, IIT Madras
- Joint secretary of Civil Engineering Association (CEA), 2013-'14, IIT Madras
- Coordinator of the First National Level Technical Camp for Civil Engineering students 'ICI-FEST 2013', conducted at IIT Madras.
- Executive member of ICI-IIT M students chapter, 2012-'14