# Venu Madhav Garikapati, PhD Assistant Research Professor

Arizona State University
School of Sustainable Engineering and the Built Environment
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### **EDUCATION**

Arizona State University	Tempe, AZ
PhD, Civil, Environmental and Sustainable Engineering	2014
Dissertation Title: A Tour Level Stop Scheduling Framework and	
A Vehicle Type Choice Model System for Activity Based Travel Forecasting	
Advisor: Ram M. Pendyala	
Indian Institute of Technology (IIT) Bombay	India
M Tech, Civil Engineering	2009
Thesis Title: Modelling Choice of Airport and Access Mode	
Advisor: Krishna R. Kurra	
Acharya Nagarjuna University	India
B Tech, Civil Engineering	2007
PROFESSIONAL EXPERIENCE	
PROFESSIONAL EXPERIENCE  Arizona State University	Tempe, AZ
	Tempe, AZ
Arizona State University Assistant Research Professor	Tempe, AZ July 2016 - Present
Arizona State University Assistant Research Professor	•
Arizona State University Assistant Research Professor School of Sustainable Engineering and the Built Environment Georgia Institute of Technology	July 2016 - Present
Arizona State University Assistant Research Professor School of Sustainable Engineering and the Built Environment Georgia Institute of Technology	July 2016 - Present Atlanta, GA
Arizona State University  Assistant Research Professor  School of Sustainable Engineering and the Built Environment  Georgia Institute of Technology  Postdoctoral Fellow, School of Civil and Environmental Engineering  Fellow	July 2016 – Present Atlanta, GA eb 2015 – June 2016 Tempe, AZ
Arizona State University  Assistant Research Professor  School of Sustainable Engineering and the Built Environment  Georgia Institute of Technology  Postdoctoral Fellow, School of Civil and Environmental Engineering  Arizona State University	July 2016 – Present Atlanta, GA eb 2015 – June 2016 Tempe, AZ ent 2012 – 2014
Arizona State University  Assistant Research Professor  School of Sustainable Engineering and the Built Environment  Georgia Institute of Technology  Postdoctoral Fellow, School of Civil and Environmental Engineering  Arizona State University  Research Associate, School of Sustainable Engineering and the Built Environmental	July 2016 – Present Atlanta, GA eb 2015 – June 2016 Tempe, AZ ent 2012 – 2014
Arizona State University  Assistant Research Professor  School of Sustainable Engineering and the Built Environment  Georgia Institute of Technology  Postdoctoral Fellow, School of Civil and Environmental Engineering  Arizona State University  Research Associate, School of Sustainable Engineering and the Built Environmental Engineering Assistant, School of Sustainable Engineering and the Built Environmental Engineering Enginee	July 2016 – Present Atlanta, GA eb 2015 – June 2016 Tempe, AZ ent 2012 – 2014 ent Spring 2012
Arizona State University Assistant Research Professor School of Sustainable Engineering and the Built Environment Georgia Institute of Technology Postdoctoral Fellow, School of Civil and Environmental Engineering Arizona State University Research Associate, School of Sustainable Engineering and the Built Environmental Engineering Assistant, School of Sustainable Engineering and the Built Environmental Engineering and Engineering Engin	July 2016 – Present Atlanta, GA eb 2015 – June 2016 Tempe, AZ ent 2012 – 2014 ent Spring 2012 2011 – 2012

# AREAS OF EXPERTISE

- Activity-Based Travel Behavior and Time Use Analysis
- Multimodal Transportation Planning and Policy Analysis
- Travel Demand Modeling and Forecasting

- Econometric and Statistical Methods for Transportation Data Analysis
- Transportation Safety
- Sustainable Transportation and Urban Development

### PUBLICATIONS IN REFEREED JOURNALS

- **Garikapati**, V. M., Pendyala, R. M., Morris, E. A., Mokhtarian, P. L., and McDonald, N. (2016). Activity Patterns, Time Use, And Travel of Millennials: A Generation in Transition? *Transport Reviews*, 36(5), 558-584.
- Garikapati, V. M., You, D., Pendyala, R. M., Patel, T., Kottommannil, J., and Sussman, A. (2016). Design, Development, and Implementation of a University Travel Demand Modeling Framework. In Press, *Transportation Research Record: Journal of the Transportation Research Board*.
- Konduri, K. C., You, D., **Garikapati**, V. M., and Pendyala, R. M. (2016). Population Synthesis Model for Incorporating Controls at Multiple Geographic Resolutions. In Press, *Transportation Research Record: Journal of the Transportation Research Board*.
- Shin, J., Bhat, C. R., You, D., **Garikapati**, V. M., and Pendyala, R. M. (2016). Consumer Preferences and Willingness to Pay for Advanced Vehicle Technology Options and Fuel Types. *Transportation Research: Part C*, 60, 511-524.
- Lavieri, P., Bhat, C. R., Dubey, S. K., Pendyala, R. M., and **Garikapati**, V. M. (2016). Introducing Latent Psychological Constructs in Injury Severity Modeling: A Multi-Vehicle and Multi-Occupant Approach. In Press, *Transportation Research Record: Journal of the Transportation Research Board*.
- Garikapati, V. M., You, D., Pendyala, R. M., Jeon, K., Livshits, V., and Vovsha, P. S. (2015). A Tour Characterization Framework Incorporating an Activity Stop Sequencing Model System. *Transportation Research Record: Journal of the Transportation Research Board*, 2(2494), 77-86.
- Wafa, Z., Bhat, C. R., Pendyala, R. M., and **Garikapati**, V. M. (2015). Latent-Segmentation-Based Approach to Investigating Spatial Transferability of Activity-Travel Models. *Transportation Research Record: Journal of the Transportation Research Board*, 2493, 136-144.
- **Garikapati**, V. M., You, D., Pendyala, R. M., Vovsha, P. S., Livshits, V., and Jeon, K. (2014). Multiple Discrete-Continuous Model of Activity Participation and Time Allocation for Home-Based Work Tours. *Transportation Research Record: Journal of the Transportation Research Board*, 2429, 90-98.
- Garikapati, V. M., Sidharthan, R., Pendyala, R. M., and Bhat, C. R. (2014). Characterizing Household Vehicle Fleet Composition and Count by Type in Integrated Modeling Framework. *Transportation Research Record: Journal of the Transportation Research Board*, 2429, 129-137.
- You, D., **Garikapati**, V. M., Pendyala, R. M., Bhat, C. R., Dubey, S., Jeon, K., and Livshits, V. (2014). Development of Vehicle Fleet Composition Model System for Implementation in Activity-Based Travel Model. *Transportation Research Record: Journal of the Transportation Research Board*, 2430, 145-154.
- Chester, M. V., Nahlik, M. J., Fraser, A. M., Kimball, M. A., and **Garikapati**, V. M. (2013). Integrating Life-Cycle Environmental and Economic Assessment with Transportation and Land Use Planning. *Environmental Science & Technology*, 47(21), 12020-12028.

#### **PUBLICATIONS UNDER REVIEW**

- **Garikapati**, V. M., You, D., Zhang, W., Pendyala, R. M., Guhathakurta, S., Brown, M., and Dilkina, B. (2016). Estimating Household Travel Energy Consumption in Conjunction with A Travel Demand Forecasting Model. Submitted for Presentation and Publication to *Transportation Research Record: Journal of the Transportation Research Board*.
- Lavieri, P., **Garikapati**, V. M., Bhat, C. R., and Pendyala, R. M. (2016). An Investigation of Heterogeneity in Vehicle Ownership and Usage for the Millennial Generation. Submitted for Presentation and Publication to *Transportation Research Record: Journal of the Transportation Research Board*.
- Lavieri, P., **Garikapati**, V. M., Bhat, C. R., Pendyala, R. M., Astroza, S., and Dias, F. F. (2016). Modeling Individual Preferences for Ownership and Sharing of Autonomous Vehicle Technologies. Submitted for Presentation and Publication to *Transportation Research Record: Journal of the Transportation Research Board*.
- Ye, X., **Garikapati**, V. M., You, D., and Pendyala, R. M. (2016). A Practical Method to Test the Validity of the Standard Gumbel Distribution in Logit-Based Multinomial Choice Models of Human Travel Behavior. Submitted for Presentation to *Transportation Research Record: Journal of the Transportation Research Board*.
- Astroza, S., **Garikapati**, V. M., Bhat, C. R., Pendyala, R. M., Lavieri, P., and Dias, F. F. (2016). Analysis of the Impact of Technology Use On Multi-Modality and Activity-Travel Characteristics. Submitted for Presentation and Publication to *Transportation Research Record: Journal of the Transportation Research Board*.
- Mahmoudi, M., **Garikapati**, V. M., Tong, L., Zhou, X, and Pendyala, R. M. (2016). How Many Trip Requests Could We Support? An Activity-Travel Based Vehicle Scheduling Approach. Submitted for Presentation and Publication to *Transportation Research Record: Journal of the Transportation Research Board*.
- Pendyala R. M., You, D., **Garikapati**, V. M., Konduri, K. C., and Zhou, X. (2016). Paradigms for Integrated Modeling of Activity-Travel Demand and Network Dynamics in an Era of Dynamic Mobility Management. Submitted for Presentation to *Transportation Research Record: Journal of the Transportation Research Board*.
- Dias, F. F., Lavieri, P., **Garikapati**, V. M., Astroza, S., Pendyala, R. M., and Bhat, C. R. (2016). A Behavioral Choice Model of the Use of Car-Sharing and Ride-Sourcing Services. Submitted for Presentation and Publication to *Transportation Research Record: Journal of the Transportation Research Board*.
- **Garikapati**, V. M., You, D., Pendyala, R. M., Jeon, K., Livshits, V., and Bhat, C. R. (2015). Development of a Vehicle Fleet Composition Model System: Results from an Operational Prototype. Submitted for Publication to *Transportation Letters*. Also appears in *Proceedings of the 95th Annual Meeting of the Transportation Research Board*, Washington, D.C.
- Fu, X., Bhat, C. R., Pendyala, R. M., Vadlamani, S., and **Garikapati**, V. M. (2015). Understanding the Multiple Dimensions of Residential Choice. Submitted to *Transportation Letters*. Also appears in *Proceedings of the 94th Annual Meeting of the Transportation Research Board*, Washington, D.C.
- Hoklas, M. M., Dubey, S. K., Bhat, C. R., **Garikapati**, V. M, and Pendyala, R. M. (2015). An Integrated Latent Construct Modeling Framework for Predicting Physical Activity Engagement and Health Outcomes. Submitted to *Journal of Transport & Health*.

#### PUBLICATIONS IN REFEREED CONFERENCE PROCEEDINGS

- Astroza, S., **Garikapati**, V. M., You, D., Pinjari, A. R., and Bhat, C. R. (2016). A Multivariate Multiple Discrete-Continuous Probit Model of Time Allocation to Commuting Modes and Physical Activity. In *Proceedings of the 95<sup>th</sup> Annual Meeting of the Transportation Research Board*, Washington, D.C.
- Chu, A., Bhat, C. R., Pendyala, R. M., and **Garikapati**, V. M. (2016). A Comprehensive Mixed Logit Analysis of Crash Type Conditional on a Crash Event. In *Proceedings of the 95th Annual Meeting of the Transportation Research Board*, Washington, D.C.
- You, D., **Garikapati**, V. M., Konduri; K. C., Pendyala, R. M., Vovsha, P. S., and Livshits, V. (2013). Multiple Discrete-Continuous Model of Activity Type Choice and Time Allocation for Home-Based Non-Work Tours. In *Proceedings of the 92<sup>nd</sup> Annual Meeting of the Transportation Research Board*, Washington, D.C.

### PUBLICATIONS IN NON-REFEREED CONFERENCE PROCEEDINGS

- You, D., **Garikapati**, V. M., and Pendyala, R. M. (2015). Modeling the Short- and Long-Term Behavioral Impacts of a Low Emission Zone Policy: The Application of an Integrated Model of the Urban Continuum. In *Proceedings of the 3<sup>rd</sup> International Symposium for Next Generation Infrastructure*, Washington, D.C.
- **Garikapati**, V. M., and Kurra, V. K. R. (2010). Modelling Choice of Airport and Access Mode. In *Proceedings of the 12th World Conference on Transport Research*, Lisbon, Portugal.

### RESEARCH EXPERIENCE

## **Georgia Institute of Technology**

- Development of a Statewide Travel Model for Colorado (Sponsor: Colorado Department of Transportation, Award Amount: \$68,500)
  - The objective of this project is to develop an activity-based microsimulation model for the state of Colorado. We are developing a statewide synthetic population generation process that would represent the true population characteristics.
- Mid-Region Council of Governments Travel Model Update (Sponsor: Mid-Region Council of Governments of New Mexico, Award Amount: \$110,000)
  - The objective of this project is to develop a comprehensive update to the Mid-Region Council of Governments travel demand model system. We developed and calibrated new destination and mode choice models, as well as a new submodel to account for university travel demand.

# **Arizona State University**

• Tour Characterization Framework for Implementation in the MAG Activity-Based Travel Model System (Sponsor: Maricopa Association of Governments, Award Amount: \$175,462)

This project involved the development of a modeling framework capable of simulating all of the stops in a tour, including the time allocated to and the sequence of stops on the tour. We applied advanced choice modeling methods to estimate and apply the model.

- Applications for the Environment: Real-Time Information Synthesis (AERIS) Low Emission Zone (LEZ) Policy Modeling (Sponsor: ITS Joint Program Office, Federal Highway Administration, Award Amount: \$419,980)
  - This project involved the development and application of an integrated model system of activity-travel demand and dynamic traffic assignment to effectively simulate the impacts of low emission zone policies on vehicle fleet composition, vehicular travel, and emissions.
- Foundational Knowledge to Support a Long Distance Passenger Travel Demand Modeling Framework (Sponsor: Federal Highway Administration, Award Amount: \$149,472)
  - The objective of this project was to develop and implement a framework to model long distance travel by all modes of transport in the United States. We developed national level multimodal networks and socio-economic databases to support the modeling effort.
- Development of a Vehicle Fleet Composition Model for MAG (Sponsor: Maricopa Association of Governments, Award Amount: \$77,997)
  - This project dealt with the development of a vehicle fleet composition model system for incorporation in MAG's Activity-Based Travel Model. We developed and demonstrated a comprehensive model of household vehicle type choice using advanced modeling methods.

#### Indian Institute of Technology-Bombay, Mumbai, India

- Development of a travel demand model to assess the impacts of an information technology hub in Pune, India.
- Development of a travel demand model to forecast the traffic flows on Western Freeway Sea Link, Mumbai.
- Development of a travel demand model to predict passenger boardings/alightings for a metro rail system in Navi Mumbai, India.

#### RESEARCH REPORTS

- Pendyala, R. M., Zhou, X., **Garikapati**, V. M., You, D., Liu, J., Yelchuru, B., Fitzgerel, S., and Murari, S. (2015). AERIS—Applications for the Environment: Real-Time Information Synthesis: Low Emission Zone (LEZ) Scenario Modeling Report. *Final Report*, Submitted to US Department of Transportation, Federal Highway Administration, Washington, D.C. Contract DTFH61-06-D-00006.
- Outwater, M., Bradley, M., Ferdous, N., Pendyala, R. M., **Garikapati**, V. M., Bhat, C. R., Dubey, S. K., LaMondia, J., Hess, S., and Daly, A. (2015). Foundational Knowledge to Support a Long-Distance Passenger Travel Demand Modeling Framework. *Final Report*, Submitted to US Department of Transportation, Federal Highway Administration, Washington, D.C. Contract DTFH61-10-R-00036.

- Pendyala, R. M., Volosin, S. E., You, D., and **Garikapati**, V. M. (2015). A Comprehensive Survey and Analysis of Travel Demand Characteristics of Arizona State University Faculty, Staff, and Students. *Final Report*, Submitted to Maricopa Association of Governments, Phoenix, AZ.
- Pendyala, R. M., Volosin, S. E., **Garikapati**, V. M., and You, D. (2015). Development, Calibration, and Validation of a Special Generator Model: Arizona State University Submodel for Integration with the MAG Regional Travel Model. *Final Report*, Submitted to Maricopa Association of Governments, Phoenix, AZ.
- Pendyala, R. M., **Garikapati**, V. M., and You, D. (2015). Development of a Vehicle Fleet Composition Model System. *Final Report*, Submitted to Maricopa Association of Governments, Phoenix, AZ
- Pendyala, R. M., **Garikapati**, V. M., and You, D. (2015). Development of Updated Model Components for the MRCOG Regional Travel Demand Model System: Destination Choice, Mode Choice, and University Submodel. *Final Report*, Submitted to Mid-Region Council of Governments, Albuquerque, NM.

### POSTERS/PRESENTATIONS

- **Garikapati, V. M.,** You, D., and Pendyala, R. M. (2016). A Novel Approach to Model University Student Travel Demand. Paper Presented at the 14<sup>th</sup> World Conference on Transport Research, Shanghai, China.
- You, D., **Garikapati**, V. M., and Pendyala, R. M. (2016). Modelling The Impacts of a Low Emission Zone Policy: The Application of an Integrated Model of Activity Demand and Network Dynamics. Paper Presented at the 14<sup>th</sup> World Conference on Transport Research, Shanghai, China.
- **Garikapati**, V. M., You, D., Pendyala, R. M., Patel, T., Kottommannil, J., and Sussman, A. (2016). Accounting for Unique Aspects of Travel Demand Generated by a Large University in Travel Models. Paper Presented at the 6<sup>th</sup> TRB Conference on Innovations in Travel Modeling, Denver, Colorado.
- Pendyala, R. M., **Garikapati**, V. M., and You, D. (2016). Reflecting the Interaction between Activity-Travel Engagement and Subjective Well-being in Activity-Based Travel Model Systems. Presented at the 6<sup>th</sup> TRB Conference on Innovations in Travel Modeling, Denver, Colorado.
- Pendyala, R. M., **Garikapati**, V. M., You, D., Zhou, X., and Konduri, K. C. (2016). Continuous-time Integrated Transport Model System for Simulating Impacts of Dynamic and Active Mobility Management Strategies. Presented at the 6<sup>th</sup> TRB Conference on Innovations in Travel Modeling, Denver, Colorado.
- Konduri, K. C., You, D., **Garikapati**, V. M., and Pendyala, R. M. (2016). Exploring the Implications of Alternative Household- and Person-level Constraints at Multiple Spatial Resolutions in Synthetic Population Generation. Presented at the 6<sup>th</sup> TRB Conference on Innovations in Travel Modeling, Denver, Colorado.
- **Garikapati**, V. M. (2016). Activity Patterns, Time Use, and Travel of Millennials: A Generation in Transition? Invited Talk at The National Center for Transportation Systems Productivity and Management, Georgia Institute of Technology, January 21, 2016.
- **Garikapati**, V. M., You, D., Pendyala, R. M., Jeon, K., Livshits, V., and Bhat, C. R. (2016). Development of a Vehicle Fleet Composition Model System: Results from an Operational Prototype. Paper Presented at the 95th Annual Meeting of the Transportation Research Board, Washington, D.C.

- **Garikapati**, V. M., You, D., Pendyala, R. M., Patel, T., Kottommannil, J., and Sussman, A. (2016). Design, Development, and Implementation of a University Travel Demand Modeling Framework. Paper Presented at the 95<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C.
- Garikapati, V. M., Pendyala, R. M., Morris, E. A., Mokhtarian, P. L., and McDonald, N. (2016). Activity Patterns, Time Use, and Travel of the Millennial Generation: What Is All The Hype About? Paper Presented at the 95th Annual Meeting of the Transportation Research Board, Washington, D.C.
- Astroza, S., **Garikapati**, V. M., You, D., Pinjari, A. R., Bhat, C. R., and Pendyala, R. M. (2016). A Multivariate Multiple Discrete Continuous Probit Model of Time Allocation to Commuting Modes and Physical Activity. Paper Presented at the 95<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C.
- Konduri, K. C., You, D., **Garikapati**, V. M., and Pendyala, R. M. (2016). Application of an Enhanced Population Synthesis Model That Accommodates Controls at Multiple Geographic Resolutions. Paper Presented at the 95th Annual Meeting of the Transportation Research Board, Washington, D.C.
- Chu, A., hat, C. R., Pendyala, R. M., and **Garikapati**, V. M. (2016). A Comprehensive Mixed Logit Analysis of Crash Type Conditional on a Crash Event. Paper Presented at the 95<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C.
- Lavieri, P., Bhat, C. R., Pendyala, R. M., and **Garikapati**, V. M. (2016). Introducing Latent Psychological Constructs in Injury Severity Modeling: A Multi-Vehicle and Multi-Occupant Approach. Paper Presented at the 95<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C.
- You, D., **Garikapati**, V. M., and Pendyala, R. M. (2015). Modeling the Short- and Long-Term Behavioral Impacts of a Low Emission Zone Policy: The Application of an Integrated Model of the Urban Continuum. Paper Presented at the 3<sup>rd</sup> International Symposium for Next Generation Infrastructure, Washington, D.C.
- **Garikapati**, V. M., Pendyala, R. M., Morris, E. A., Mokhtarian, P. L., and McDonald, N. (2015). A Longitudinal Exploration of Activity Engagement, Time Use, and Well-Being of Millennials. Paper Presented at the 14<sup>th</sup> International Conference on Travel Behaviour Research, Windsor, UK.
- **Garikapati**, V. M., You, D., Pendyala, R. M., and Volosin, S. E. (2015). How Do University Students Travel? The Role of Attitudes and Values. Paper Presented at the 14<sup>th</sup> International Conference on Travel Behaviour Research, Windsor, UK.
- **Garikapati**, V. M., You, D., and Pendyala, R. M. (2015). Modeling Household Vehicle Fleet Composition Using a Heuristic Forecasting Algorithm. Paper Presented at the 14<sup>th</sup> International Conference on Travel Behaviour Research, Windsor, UK.
- Konduri, K. C., Ning, Y., Pendyala, R. M., Zhou, X., You, D., and **Garikapati**, V. M. (2015). Modeling Behavioral Response to Real-Time Traveler Information: An Application of a Continuous-Time Integrated Transport Modeling Framework. Paper Presented at the 14<sup>th</sup> International Conference on Travel Behaviour Research, Windsor, UK.
- **Garikapati**, V. M., You, D., Astroza, S., Pendyala, R. M., and Bhat C. R. (2015). The Multiple Attributes of Activity Participation: How Are the Choice Dimensions Related? Paper Presented at the 3<sup>rd</sup> International Conference on Choice Modeling, Austin, TX.
- Hoklas, M. M., Dubey, S. K., Bhat, C. R., Garikapati, V. M., and You, D. (2015). An Integrated Latent Construct Modeling Framework for Predicting Physical Activity Engagement and

- Health Outcomes. Paper Presented at the 3<sup>rd</sup> International Conference on Choice Modeling, Austin, TX.
- Pendyala, R. M., **Garikapati**, V. M., and You. D. (2015). Simulation of the Impacts of a Connected Vehicle Low Emission Zone Strategy on Vehicular Travel, Energy Consumption, and Emissions. Invited Presentation at the 4<sup>th</sup> International Road Federation Caribbean Regional Congress, Montego Bay, Jamaica.
- **Garikapati**, V. M., You, D., Pendyala, R. M., Jeon, K., Livshits, V., and Vovsha, P. S. (2015). A Tour Characterization Framework Incorporating an Activity Stop Sequencing Model System. Paper Presented at the 94<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C.
- Fu, X., Bhat, C. R., Pendyala, R. M., Vadlamani, S., and **Garikapati**, V. M. (2015). Understanding the multiple dimensions of residential choice. Paper Presented at the 94th Annual Meeting of the Transportation Research Board, Washington, D.C.
- Wafa, Z., Bhat, C. R., Pendyala, R. M., and **Garikapati** V. M. (2015). Latent Segmentation Based Approach to Investigating Spatial Transferability of Activity-Travel Models. Paper Presented at the 94th Annual Meeting of the Transportation Research Board, Washington, D.C.
- **Garikapati,** V. M., and Volosin, S. E. (2014). Measuring the travel characteristics of a university population: results from ASU travel survey. Presented at the 4<sup>th</sup> Graduate Student Research Symposium (Winner of best poster award).
- **Garikapati**, V. M., Sidharthan, R., Pendyala, R. M., and Bhat, C. R. (2014). Characterizing Household Vehicle Fleet Composition and Count by Type in Integrated Modeling Framework. Paper Presented at the 93<sup>rd</sup> Annual Meeting of the Transportation Research Board, Washington, D.C.
- You, D., **Garikapati**, V. M., Pendyala, R. M., Bhat, C. R., Dubey, S. K., Jeon, K., and Livshits, V. (2014). Development of Vehicle Fleet Composition Model System for Implementation in Activity-Based Travel Model. Paper Presented at the 93<sup>rd</sup> Annual Meeting of the Transportation Research Board, Washington, D.C.
- **Garikapati**, V. M., You, D., Pendyala, R. M., Vovsha, P. S., Livshits, V., and Jeon, K. (2014). Multiple Discrete-Continuous Model of Activity Participation and Time Allocation for Home-Based Work Tours. Paper Presented at the 93<sup>rd</sup> Annual Meeting of the Transportation Research Board, Washington, D.C.
- You, D., **Garikapati**, V. M., Pendyala, R. M., Konduri, K. C., Vovsha, P. S., and Livshits, V., (2013). Joint Modeling of Activity Type and Duration of Home Based Non-Work Tours. Paper Presented at the 92<sup>nd</sup> Annual Meeting of the Transportation Research Board, Washington, D.C.

#### TEACHING EXPERIENCE

## **Georgia Institute of Technology**

CEE 8813D: Activity-Travel Behavior Modeling and Microsimulation (Fall 2015)
 Taught advanced microsimulation models for activity-based travel forecasting. Software systems covered in the course include open source platforms programmed in Python and R.

# **Arizona State University**

CEE 598: Activity-Travel Behavior Analysis (Spring 2013)

- Provided students hands-on training in the use of various statistical and econometric modeling methods including SPSS, LIMDEP, NLOGIT, and R.
- CEE 384: Numerical Methods for Engineers (Spring 2012, Fall 2012)
   Provided large undergraduate class hands-on instruction in the use of Matlab in the classroom. Assisted students with Matlab assignments.
- Delivered guest lectures on special topics in the following courses
  - CEE 598: Transportation Survey Methods and Data Analysis (Spring 2014)
  - CEE 598: Transportation Systems Planning (Fall 2013)

### **Professional Workshops Conducted**

- Knowledge Transfer Session on Multiple Discrete Choice (MDC) Processes: Modeling and Applications (International Choice Modeling Conference 2015, Austin, TX, May 11).
  - The objective of the workshop was to train attendees in the estimation and application of MDC models. Organized and instructed a hands-on training session on MDC model estimation/application using software developed in open source coding language 'R'.

### **HONORS AND AWARDS**

- **Best Poster Award** at the fourth annual graduate research symposium, School of Sustainable Engineering and the Built Environment, ASU (2014).
- **Graduate Student Service Award** for distinguished service to the graduate student community (2013).
- **Internal Affairs Committee Member of the Year** by the Graduate and Professional Students Association (2013).
- **Arizona State University Graduate Travel Grant** to attend the Annual Meeting of the Transportation Research Board (2013 and 2014).
- **Graduate Fellowship**, Arizona State University (2012).
- **Graduate Fellowship**, Ministry of Human Resource Development, India (2007-09).

#### PROFESSIONAL SERVICE

- Assembly Member, Graduate Professional Student Association, Arizona State University (2011-2013).
- **Fundraising Activities Coordinator**, Arizona State University student chapter of the Institute of Transportation Engineers (2011-2012).
- **Placement Coordinator**, IIT Bombay (2008-09).
- Secretary of the Transportation and Accommodation Committee for a national level conference, Transportation Planning Methodologies for Developing Countries (TPMDC), Indian Institute of Technology-Bombay (2008).
- Chief Coordinator, Civicons 06, a national level symposium conducted at Bapatla Engineering College, India (2006).
- **Secretary**, Civil Engineers Association, Bapatla Engineering College, India (2003-07).

#### Reviewer

- Journals
  - Transportation Research Record (and Annual Meeting of the Transportation Research Board)
  - Transportation Research Part D: Transport and Environment
  - Transport Reviews
  - Urban Rail Transit
  - IATSS Research
  - Sustainability
- Conferences
  - 11th Conference on Transportation Planning and Implementation Methodologies for Developing Countries
  - 3rd Conference of the Transportation Research Group of India

### PROFESSIONAL AFFILIATIONS

- Member, Institute of Transportation Engineers (2009-present).
- Member, Tau Beta Pi Engineering Honors Society (2014-present).
- Member, International Association for Travel Behaviour Research (2009-present).
- Member, Association of Transportation Professionals of Indian Origin (2014-present).
- Member, World Conference on Transport Research Society (2010-present).
- Friend, Transportation Research Board Standing Committees on Traveler Behavior and Values (ADB10), Transportation Demand Forecasting (ADB 40), and Transportation Planning Applications (ADB 50)

#### **SOFTWARE SKILLS**

- Programming Languages: C, SQL, Python, MATLAB, R
- Data Analysis Tools: SPSS, Stata, LIMDEP, NLOGIT, working knowledge of GAUSS
- Geographical Analysis Tools: ArcGIS, QGIS
- Transportation Related Softwares: CUBE, TransCAD, MicroStation, InRoads, AutoCAD, VISSIM, PopGen, openAMOS, DTALite
- Operating Systems: Windows, Linux