

NAVEEN ELURU

CURRENT EMPLOYMENT

Assistant Professor
Department of Civil Engineering and Applied Mechanics
McGill University
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ACADEMIC QUALIFICATIONS

- **Doctor of Philosophy** in Civil Engineering (Transportation), **University of Texas at Austin, TX**
Sep 2010
Thesis: Developing Advanced Econometric Frameworks for modeling Multidimensional Choices: An Application to Integrated Modeling of Activity, Transportation and Land-Use Choice Behavior
 - **Master of Science** in Civil Engineering (Transportation), **University of Texas at Austin, TX**
Dec 2005
Thesis: A Joint Econometric Analysis of Seat Belt Use and Crash-Related Injury Severity
 - **Bachelor of Technology** in Civil Engineering, **Indian Institute of Technology (IIT)**, Madras, India
May 2004
Thesis: Study of Sensitivity of a Trip Table Synthesis Model to a Parameter
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PROFESSIONAL EXPERIENCE

- **Assistant Professor**, Department of Civil Engineering and Applied Mechanics, McGill University
Oct 2010 - Present
 - **Graduate Research Assistant**, Department of Civil, Architectural and Environmental Engineering, University of Texas at Austin, TX
Aug 2004 - May 2010
 - **Graduate Student Consultant**, Division of Statistics and Scientific Computing (SSC), University of Texas at Austin, TX
Sep 2008 - Dec 2008
 - **Undergraduate Student Intern**, Karnataka State Police Housing Corporation, Bangalore India
May 2003 - Jul 2003
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RESEARCH INTERESTS

- **Transportation Planning:** Activity-based models, micro-simulation frameworks, policy evaluation of transportation congestion pricing measures on traffic congestion
- **Integrated Socio-Demographic and Land-Use Modeling:** Population updating microsimulation systems, self-selection in residential location choice, long-term residential mobility and explicit incorporation of built environment
- **Sustainable Urban Design:** Studying influence of urban form on bicycle use, and understanding bicycle route choice behavior, examining physical activity participation determinants and non-traditional work participation behavior
- **Activity Time-Use:** Studying activity participation, time-use and activity-travel pattern attributes
- **Transportation Safety:** Traffic crash analysis of driver injury severity accounting for seat-belt use endogeneity and examination of pedestrian and bicyclist injury severity
- **Integrating Travel Demand and Supply Models:** Integrating Activity-Based frameworks and Dynamic Traffic Assignment modules for travel forecasting and evacuation planning
- **Advanced Econometric Modeling:** Discrete choice models accounting for self-selection, generalized ordered logit models, stated preference studies, multiple discrete-continuous frameworks, copula models, and composite likelihood approaches

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COURSEWORK

- **Transportation:** Transportation Engineering, Transportation Planning-Methodology and Techniques, Infrastructure Planning, Management and Transportation System Analysis, Transportation Network Analysis I & II, Transportation Logistics, Advanced Theory of Traffic Flow,
- **Economics and Econometric Modeling:** Economics I, Economics of Industrial Organization, Discrete Choice Theory and Modeling, Modeling Tools with Engineering Applications, Econometrics I Econometrics II, Bayesian Statistics, Structural Equation Modeling
- **Operation Research and Optimization:** Fundamentals of Operations Research, Advanced Operations Research, Computer Simulation, Stochastic Models, Systems Simulation, Non-linear Programming, Stochastic Optimization, Applied Stochastic Processes, Network Optimization
- **Other:** Statistical Consulting, Linear Algebra and Numerical Analysis, Linear Programming, Mathematical Statistics, Computer Methods in Civil Engineering, Genetics, German Studies I

TEACHING INTERESTS

- **Undergraduate Courses:** Introduction to Transportation, Probability and Statistics, Operations Research Methods in Transportation, Traffic Engineering, and Transportation Infrastructure and Built Environment
- **Graduate Courses:** Transportation Planning, Discrete Choice modeling, Econometric Applications in Transportation, Transportation Network Analysis, Activity-based Models: Development and Implementation, and Statistics and Operations Research Methods for Transportation

ACADEMIC AND RESEARCH EXPERIENCE

Assistant Professor, McGill University, October 2010 - Present

Research Projects as PI

- McGill Social Sciences and Human Resources Council Internal grant "Modeling the influence of transportation infrastructure on social capital" (3500\$) Mar 2011 - Dec 2011
 - Develop a coherent measure that will allow us to evaluate social activity involvement of individuals in the urban region and evaluate the measure employing a micro-simulation framework
 - Using the micro-simulation tool undertake policy scenario analysis to investigate the changes in these measures as a result of new transportation infrastructure projects.

Research Projects as Co-PI

- McGill Office of Sustainability Funds Transport Survey Project (24,000\$) Dec 2010-Present
 - Part of the team investigating McGill community travel behavior patterns. The primary focus of the research effort is on identifying the commuting patterns of McGill students and employees accounting for differences in winter and fall patterns.

Graduate Research Assistant, University of Texas, August 2004 -May 2010

- Student Team Lead for Southern California Association of Governments "Activity Based Travel Demand Model Development" Apr 2009 - May 2010
 - Student leader of the UT team working on developing an activity-based travel demand model for Los Angeles region. Specifically, we are currently deploying CEMDAP (Comprehensive Econometric Micro-simulator for Daily Activity-travel Pattern) for the LA region. As a part of this effort, we are generating travel demand patterns for year 2003, 2008, 2020 and 2035. Towards this end, we are also enhancing the existing version of CEMDAP to better suit the needs of LA region.
- Project Manager for Ohio Department of Transportation project "Sensitivity of Four-Step versus Activity-Based Models to Transportation System Changes" Sep 2008 - May 2010
 - Student leader of the team working on analyzing sensitivity of activity-based and trip-based travel demand models to transport policies and infrastructure investment decisions in the Columbus, Ohio region

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- As part of the study, will conduct before and after studies and compare the accuracy of predicted changes in travel patterns from the activity-based and trip-based models
- Examining the feasibility of developing an Activity-Based framework for Turin Italy
Sep 2008 - Aug 2009
 - Part of the team that examined data requirements for application of an activity based model for metropolitan region Turin, Italy. Specifically, we explored the potential application of CEMDAP as a planning tool
- North Central Texas Council of Governments project titled "Performance Assessment of Activity-Based and Trip-Based Travel Demand Models"
Sep 2007 – Aug 2009
 - Part of the team that worked to quantify the computation-costs and accuracy-benefits of the activity-based approach vis-à-vis the trip-based approach to travel demand forecasting
- Texas Department of Transportation project titled "Operational and Safety Impacts for Bicyclists using Roadways with On-Street Parking"
Sep 2006 – Aug 2007
 - As part of the project, examined bicyclists' preferences of various route attributes that influence bicycle route choice. In charge of developing a web-based Stated Preference survey to evaluate trade-offs of the attributes that potentially influence bicycle route choice
 - Analyzed data collected from the survey to propose policy recommendations to enhance the bicycling experience in Texas
- Texas Department of Transportation project titled "Second Generation Activity-Based Travel Modeling System for Metropolitan Areas in Texas Accommodating Demographic, Land Use, and Traffic Microsimulation Components"
Sep 2004 – Aug 2008
 - Part of a team of graduate students that worked towards the development of Activity-Based modeling software – CEMDAP. Team lead in the development of CEMDAP software using Visual .Net.
 - Also, led the effort to develop a demographic population updating software. Worked on making software enhancements to the existing versions of the software. Assisted Texas Department of Transportation staff with software deployment and installation of CEMDAP executable files
- Report titled "Guidelines for the Humane Transportation of Research Animals" Jan 2005 – Aug 2005
 - Developed a TransCad/Visual C based "Facility Location Model" to develop an optimal plan to locate new research facility locations and proposed potential routes for the transportation of research animals from these facilities
- Research Proposal Experience Jan 2005 – May 2010
 - Involved in assisting my advisor with writing research proposals for Texas Department of Transportation, Southwest Region University Transportation Center (SWUTC), Federal Highway Administration (FHWA) and other agencies.

Undergraduate research experience, Indian Institute of Technology Madras, India, August 2000 - May 2004

- Thesis titled "Study of Sensitivity of a Trip Table Synthesis Model to a Parameter" under the guidance of Dr. R. Sivanandan
Aug 2003- May 2004
 - Examined the sensitivity of Origin Destination trip tables, produced by the linear programming model, as a function of the error weight parameter

TEACHING AND MENTORING EXPERIENCE

Teaching Experience with Division of Statistics and Scientific Computing (SSC), UT Austin Sep 2008 - Dec 2008

- Instructor for the graduate course "SPSS software"
Jan 2009 - Mar 2009
 - Handled the entire course including developing the outline, teaching the syllabus and assigning homework. Further, helped students with data issues corresponding to their research
- Teaching Assistant for an undergraduate course
Sep 2008 - Dec 2008

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- Helped students with the fundamentals in statistics and organized regular review sessions in the course "Introduction to Statistics and Scientific Computing". Also, I helped students with tutorial sessions in MATLAB

Student Consultant for Division of Statistics and Scientific Computing (SSC), UT Austin Sep 2008 - Dec 2008

- Student consultant for Division of Statistics and Scientific Computing (SSC) Sep 2008 - Dec 2008
 - As a graduate fellow in the Division of Statistics and Scientific Computing, offered assistance with data compilation, analysis and presentation of results to faculty members in the Department of Government and Department of Human Ecology
 - Also as a SSC fellow, I conducted weekly consulting sessions for UT students, staff and faculty from various departments, helping answer statistical problems (conceptual and software related) pertaining to their research

Mentoring undergraduate students, University of Texas at Austin August 2005 - Dec 2006

- Mentored undergraduate students for one semester Aug 2005 - Dec 2006
 - As a part GLUE (Graduates Linked with Undergraduates in Engineering) mentoring program, successfully mentored two undergraduate students, introducing them to research and encouraging them to work on research tasks for one semester

Lecturing in graduate courses, University of Texas at Austin August 2005 - Present

- Lecturing experience Aug 2005 - May 2010
 - Presented variety of subject areas including activity-based models, transportation safety, transportation networks, and integrated transportation land-use models in graduate classes

Mentoring graduate students, University of Texas at Austin August 2008 - Present

- Mentored graduate students Aug 2008 - May 2010
 - As the senior PhD student in my research group I have mentored graduate students working with my advisor, helping them with their Master's and Dissertation research.

PROFESSIONAL MEMBERSHIPS

Transportation Research Board Committee Memberships, Sep 2008 - Present

- Young committee member for the Transportation Research Board committee on "Statistical Methods" Mar 2010 - Present
 - Involved in enhancing the information flow among the academic community, the private sector and public sectors via the compilation of resources for transportation professionals
 - Developed the committee website and update it regularly
- Young committee member for the Transportation Research Board committee on "Transportation Education and Training" Sep 2008 - Present
 - Involved in enhancing the information flow among the academic community, the private sector and public sectors via the compilation of resources for transportation professionals
 - Developed the committee website and update it regularly
 - Coordinate activities with other TRB committees as the TRB Communication Coordinator

Reviewer for Transportation Journals and International Conferences, Sep 2005 - Present

- Reviewed a number of scholarly articles for various transportation and related journals and international conferences
 - **Journals refereed:** Transportation Research Part B: Methodological, Transportation Letters, Energy Economics, Transportation Research Board (*Committees served:* Travel Demand Forecasting, Committee on Traveler Behavior and Values, Transportation Education and Training, Statistical Methodology and Statistical Computer Software in Transportation, Transit Marketing and Fare Policy)
 - **Conferences refereed:** World Conference on Transport Research (WCTR) XII 2010, International Association for Travel Behavior Research (*IATBR*) 2009

PUBLICATIONS

Papers Published / Accepted for Publication

1. Paleti, R., **N. Eluru**, C.R. Bhat, R.M. Pendyala, T.J. Adler, and K.G. Goulias "The Design of a Comprehensive Microsimulator of Household Vehicle Fleet Composition, Utilization, and Evolution," accepted for publication in *Transportation Research Record* (Accepted February 2011)
2. Castro, M., **N. Eluru**, C.R. Bhat, and R.M. Pendyala, "A Joint Model of Participation in Non-Work Activities and Time-of-Day Choice Set Formation for Workers," accepted for publication in *Transportation Research Record* (Accepted February 2011)
3. Sener, I.N., **N. Eluru**, and C.R. Bhat, "On Jointly Analyzing the Physical Activity Participation Levels of Individuals in a Family Unit," forthcoming *Journal of Choice Modeling*, Vol 3, No. 3, pp1-38, 2010
4. **Eluru, N.**, A.R. Pinjari, R.M. Pendyala, and C.R. Bhat, "An Econometric Multi-Dimensional Choice Model of Activity-Travel Behavior," *Transportation Letters: The International Journal of Transportation Research*, Vol 2, No. 4, pp 217-230, 2010
5. **Eluru, N.**, C.R. Bhat, R.M. Pendyala, and K.C. Konduri, "A Joint Flexible Econometric Model System of Household Residential Location and Vehicle Fleet Composition/Usage Choices," *Transportation*, 2010 TRB Special Issue, Vol. 37, No. 4, pp. 603-626, 2010
6. Paleti, R., **N. Eluru**, and C.R. Bhat, "Examining the Influence of Aggressive Behavior and Young Drivers on Driver Injury Severity in Traffic Crashes," *Accident Analysis & Prevention*, Vol. 42, No. 6, pp. 1839-1854, 2010
7. Bhat, C.R., I.N. Sener, and **N. Eluru**, "A Flexible Spatially Dependent Discrete Choice Model: Formulation and Application to Teenagers' Weekday Recreational Activity Participation," *Transportation Research Part B*, Vol. 44, No. 8-9, pp. 903-921, 2010
8. Ferdous, N., **N. Eluru**, C.R. Bhat, and I. Meloni, "A Multivariate Ordered Response Model System for Adults' Weekday Activity Episode Generation by Activity Purpose and Social Context," *Transportation Research Part B*, Vol. 44, No. 8-9, pp. 922-943, 2010
9. **Eluru, N.**, R. Paleti, R.M. Pendyala, and C.R. Bhat, "Modeling Multiple Vehicle Occupant Injury Severity: A Copula-Based Multivariate Approach," *Transportation Research Record*, Vol. 2165, pp. 1-11, 2010
10. Spissu, E., **N. Eluru**, I.N. Sener, C.R. Bhat, and I. Meloni, "A Cross-Clustered Model of Home-Based Work Participation Frequency During Traditionally Off-Work Hours," *Transportation Research Record*, Vol. 2157, pp. 138-146, 2010
11. Bhat C.R., S. Sen, and **N. Eluru**, "The Impact of Demographics, Built Environment Attributes, Vehicle Characteristics, and Gasoline Prices on Household Vehicle Holdings and Use", *Transportation Research Part B*, Vol. 43, No. 1, pp. 1-18, 2009
12. Bhat, C.R., and **N. Eluru**, "A Copula-Based Approach to Accommodate Residential Self-Selection Effects in Travel Behavior Modeling", *Transportation Research Part B*, Vol. 43, No. 7, pp. 749-765, 2009
13. **Eluru, N.**, I.N. Sener, C.R. Bhat, R.M. Pendyala, and K.W. Axhausen, "Understanding Residential Mobility: A Joint Model of the Reason for Residential Relocation and Stay Duration", *Transportation Research Record*, Vol. 2133, pp. 64-74, 2009
14. Lin, D-Y., **N. Eluru**, S.T. Waller, and C.R. Bhat, "Evacuation Planning Using the Integrated System of Activity-Based Modeling and Dynamic Traffic Assignment", *Transportation Research Record*, Vol. 2132, pp. 69-77, 2009
15. Sener, I.N., **N. Eluru**, and C.R. Bhat, "An Analysis of Bicyclists and Bicycling Characteristics: Who, Why, and How Much are they Bicycling?", *Transportation Research Record*, Vol. 2134, pp. 63-72, 2009
16. Sener, I.N., **N. Eluru**, and C.R. Bhat, "An Analysis of Bicycle Route Choice Preferences Using a Web-Based Survey to Examine Bicycle Facilities", *Transportation*, Vol. 36, No. 5, pp. 511-539, 2009
17. **Eluru, N.**, C.R. Bhat, and D.A. Hensher, "A Mixed Generalized Ordered Response Model for Examining Pedestrian and Bicyclist Injury Severity Level in Traffic Crashes", *Accident Analysis & Prevention*, Vol. 40, No.3, pp. 1033-1054, 2008

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18. **Eluru, N.**, A.R. Pinjari, J.Y. Guo, I.N. Sener, S. Srinivasan, R.B. Copperman, and C.R. Bhat, "Population Updating System Structures and Models Embedded Within the Comprehensive Econometric Microsimulator for Urban Systems (CEMUS)", *Transportation Research Record*, Vol. 2076, pp. 171-182, 2008
19. Lin, D-Y., **N. Eluru**, S.T. Waller, and C.R. Bhat, "Integration of Activity-Based Modeling and Dynamic Traffic Assignment", *Transportation Research Record*, Vol. 2076, pp. 52-61, 2008
20. Pinjari, A.R., **N. Eluru**, C.R. Bhat, R.M. Pendyala, and E. Spissu, "A Joint Model of Residential Location and Bicycle Ownership: Accounting for Self-selection And Unobserved Heterogeneity", *Transportation Research Record*, Vol. 2082, pp. 17-26, 2008
21. **Eluru, N.**, and C.R. Bhat, "A Joint Econometric Analysis of Seat Belt Use and Crash-Related Injury Severity", *Accident Analysis & Prevention*, Vol. 39, No. 5, pp. 1037-1049, 2007
22. Waddell, P., C.R. Bhat, **N. Eluru**, L. Wang, R.M. Pendyala, "Modeling the Interdependence in Household Residence and Workplace Choices", *Transportation Research Record*, Vol. 2003, pp. 84-92, 2007

Book Chapters Accepted

23. Bhat, C.R., and **N. Eluru**, "Recent Advances in Discrete and Discrete-Continuous Modeling Systems," *Feasibility Decisions in Transportation Engineering and Economics*, edited by A. Cappelli and S. Nocera, McGraw-Hill, forthcoming.
24. Bhat, C.R., and **N. Eluru**, "The Multiple Discrete-Continuous Extreme Value (MDCEV) Model: Formulation and Applications," *Choice Modelling: The State-of-the-Art and the State-of-Practice, Proceedings from the inaugural International Choice Modelling Conference*, Chapter 4, pp. 71-100, edited by S. Hess and A. Daly, Emerald Group Publishing, 2010
25. Bhat, C.R., **N. Eluru**, and R.B. Copperman, "Flexible Model Structures for Discrete Choice Analysis", forthcoming, *Handbook of Transport Modeling*, 2nd edition, edited by D.A. Hensher and K. J. Button, Elsevier Science, 2008

Papers Under Review

26. Meloni, I., E. Spissu, A. Portoghese, N. Eluru, and C.R. Bhat, "The Effect of Personal Cap-and-Trade Mileage Policies on Individual Activity-Travel Patterns: The Activity Locator Project,"
27. Portoghese, A., E. Spissu, C.R. Bhat, N. Eluru, and I. Meloni, "A Copula-Based Joint Model of Commute Mode Choice and Number of Non-Work Stops during the Commute,"

Working Papers

28. Goulias K., Bhat C.R., Chen Y., and N. Eluru, "Greenhouse Gas Emission Scenarios of Land Use Change Using a Large Scale Continuous-Time Activity-Based Microsimulation Model System in Southern California: Design, Implementation, Preliminary Findings, and Future Plans"

REFEREED CONFERENCE PROCEEDINGS

1. **Eluru, N.**, A.R. Pinjari, R.M. Pendyala, and C.R. Bhat, "An Econometric Multi-Dimensional Choice Model of Activity-Travel Behavior," Transportation Research Board (TRB) Annual Meeting, Washington D.C., 2011
2. Paleti, R., **N. Eluru**, C.R. Bhat, R.M. Pendyala, T.J. Adler, and K.G. Goulias "The Design of a Comprehensive Microsimulator of Household Vehicle Fleet Composition, Utilization, and Evolution," Transportation Research Board (TRB) Annual Meeting, Washington D.C., 2011
3. Castro, M., **N. Eluru**, C.R. Bhat, and R.M. Pendyala, "A Joint Model of Participation in Non-Work Activities and Time-of-Day Choice Set Formation for Workers," Transportation Research Board (TRB) Annual Meeting, Washington D.C., 2011
4. Portoghese, A., E. Spissu, C.R. Bhat, **N. Eluru**, and I. Meloni, "A Copula-Based Joint Model of Commute Mode Choice and Number of Non-Work Stops during the Commute," Transportation Research Board (TRB) Annual Meeting, Washington D.C., 2011

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5. **Eluru, N.**, C.R. Bhat, R.M. Pendyala, and K.C. Konduri, "A Joint Flexible Econometric Model System of Household Residential Location and Vehicle Fleet Composition/Usage Choices," Transportation Research Board (TRB) Annual Meeting, Washington D.C., 2010
6. **Eluru, N.**, R. Paleti, R.M. Pendyala, and C.R. Bhat, "Modeling Multiple Vehicle Occupant Injury Severity: A Copula-Based Multivariate Approach," Transportation Research Board (TRB) Annual Meeting, Washington D.C., 2010
7. Ferdous, N., **N. Eluru**, C.R. Bhat, and I. Meloni, "A Multivariate Ordered Response Model System for Adults' Weekday Activity Episode Generation by Activity Purpose and Social Context" Transportation Research Board (TRB) Annual Meeting, Washington D.C., 2010
8. Sener, I.N., **N. Eluru**, and C.R. Bhat, "On Jointly Analyzing the Physical Activity Participation Levels of Individuals in a Family Unit," Transportation Research Board (TRB) Annual Meeting, Washington D.C., 2010
9. Sener, I.N., **N. Eluru**, and C.R. Bhat, "An Analysis of Bicycle Route Choice Preferences in Texas, U.S.," Transportation Research Board (TRB) Annual Meeting, Washington D.C., 2010
10. Spissu, E., **N. Eluru**, I.N. Sener, C.R. Bhat, and I. Meloni, "A Cross-Clustered Model of Home-Based Work Participation Frequency During Traditionally Off-Work Hours," Transportation Research Board (TRB) Annual Meeting, Washington D.C., 2010
11. Bhat, C.R., I.N. Sener, and **N. Eluru**, "A Flexible Spatially Dependent Discrete Choice Model: Formulation and Application to Teenagers' Weekday Recreational Activity Participation," Presented at the International Choice Modeling Conference, Leeds 2009
12. **Eluru, N.**, I.N. Sener, C.R. Bhat, R.M. Pendyala, and K.W. Axhausen, "Understanding Residential Mobility: A Joint Model of the Reason for Residential Relocation and Stay Duration," Transportation Research Board (TRB) Annual Meeting, Washington D.C., 2009
13. Bhat, C.R., and **N. Eluru**, "A Copula-Based Approach to Accommodate Residential Self-Selection Effects in Travel Behavior Modeling," Transportation Research Board (TRB) Annual Meeting, Washington D.C., 2009
14. Sener, I.N., **N. Eluru**, and C.R. Bhat, "An Analysis of Bicyclists and Bicycling Characteristics: Who, Why, and How Much are they Bicycling?," Transportation Research Board (TRB) Annual Meeting, Washington D.C., 2009
15. Lin, D-Y., **N. Eluru**, S.T. Waller, and C.R. Bhat, "Evacuation Planning Using the Integrated System of Activity-Based Modeling and Dynamic Traffic Assignment," Transportation Research Board (TRB) Annual Meeting, Washington D.C., 2009
16. **Eluru, N.**, C.R. Bhat, and D.A. Hensher, "A Mixed Generalized Ordered Response Model for Examining Pedestrian and Bicyclist Injury Severity Level in Traffic Crashes" Transportation Research Board (TRB) Annual Meeting, Washington D.C., 2008
17. **Eluru, N.**, A.R. Pinjari, J.Y. Guo, I.N. Sener, S. Srinivasan, R.B. Copperman, and C.R. Bhat, "Population Updating System Structures and Models Embedded Within the Comprehensive Econometric Microsimulator for Urban Systems (CEMUS)" Transportation Research Board (TRB) Annual Meeting, Washington D.C., 2008
18. Lin, D-Y., **N. Eluru**, S.T. Waller, and C.R. Bhat, "Integration of Activity-Based Modeling and Dynamic Traffic Assignment" Transportation Research Board (TRB) Annual Meeting, Washington D.C., 2008
19. Pinjari, A.R., **N. Eluru**, S. Srinivasan, J.Y. Guo, R.B. Copperman, I.N. Sener, and C.R. Bhat, "CEMDAP: Modeling and Microsimulation Frameworks, Software Development, and Verification," Transportation Research Board (TRB) Annual Meeting, Washington D.C., 2008
20. Pinjari, A.R., **N. Eluru**, C.R. Bhat, R.M. Pendyala, and E. Spissu, "A Joint Model Of Residential Location And Bicycle Ownership: Accounting For Self-selection And Unobserved Heterogeneity" Transportation Research Board (TRB) Annual Meeting, Washington D.C., 2008
21. Waddell, P., C.R. Bhat, **N. Eluru**, L. Wang, and R.M. Pendyala, "Modeling the Interdependence in Household Residence and Workplace Choices," Transportation Research Board (TRB) Annual Meeting, Washington, DC, 2007

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22. Bhat, C.R., J.Y. Guo, S. Srinivasan, A. Pinjari, **N. Eluru**, I. Sener, R. Copperman, and P. Ghosh, "Comprehensive Econometric Micro-simulator for Daily Activity-Travel Patterns (CEMDAP): New Developments and Application Results," White paper, Innovations in Travel Modeling Conference, Transportation Research Board, Austin, TX, 2006
23. **Eluru, N.**, and C.R. Bhat, "A Joint Econometric Analysis of Seat Belt Use and Crash-Related Injury Severity," Transportation Research Board (TRB) Annual Meeting, Washington, DC, 2006

SELECTED OTHER ORAL PRESENTATIONS

1. **Eluru, N.**, "Flexible Econometric Model Structures: Effective Tools For Travel Behavior Analysis" Invited presentation, Seminar organized by Transportation Research at McGill (TRAM), 2011
2. **Eluru, N.**, "Emerging Model Structures and Estimation Methods for Accommodating Flexible Dependency Structures - Copula And Composite Likelihood Approaches" Invited presentation Department of Civil Engineering and Applied Mechanics, McGill University, 2010
3. **Eluru, N.**, "Recent Advances in Travel Behavior Modeling: A Copula Based Methodology to Model Multidimensional Choices" Invited presentation Department of Civil Engineering, University of Minnesota (Twin Cities), 2010
4. Paleti, R., **N. Eluru**, C.R. Bhat, R.M. Pendyala, T.J. Adler, and K.G. Goulias "The Design of a Comprehensive Microsimulator of Household Vehicle Fleet Composition, Utilization, and Evolution," 57th Annual North American Meetings of the Regional Science Association International, 2010
5. **Eluru, N.**, A.R. Pinjari, R.M. Pendyala, and C.R. Bhat, "A Unified Model System of Activity Type Choice, Activity Duration, Activity Timing, Mode Choice, and Destination Choice," The 3rd conference on Innovations in Travel Modeling, 2010
6. Goulias, K., Y. Chen, C.R. Bhat, **N. Eluru**, H. Hu, R. Pendyala, and K.C. Konduri, "Activity Based Microsimulation Model System in Southern California: Design, Implementation, Preliminary Findings, and Future Plans," The 3rd conference on Innovations in Travel Modeling, 2010
7. **Eluru, N.**, "Flexible Econometric Model Structures: Effective Tools For Travel Behavior Analysis" Invited presentation Department of Civil Engineering, University of Toronto, 2009
8. **Eluru, N.**, "Emerging Model Structures and Estimation Methods for Accommodating Flexible Dependency Structures - Copula And Composite Likelihood Approaches" Invited presentation College of Engineering and Mathematical Sciences, University of Vermont, 2009
9. LaMondia, J., **Eluru, N.**, and C.R. Bhat, "Household participation in combinations of long distance leisure activities" 12th International Conference on Travel Behavior Research (IATBR) 2009
10. Portoghese, A., E. Spissu, N. Eluru, C.R. Bhat, and I. Meloni, "A copula-based joint multinomial discrete-ordered model of commuting mode choice and number of non-work stops during the commute" IATBR 2009
11. Meloni, I., E. Spissu, A. Portoghese, **N. Eluru**, and C.R. Bhat, "The effect of personal cap-and-trade mileage policies on individual activity-travel patterns" IATBR 2009
12. Sener, I.N., **N. Eluru**, and C.R. Bhat, "On Jointly Analyzing the Physical Activity Participation Levels of Individuals in a Family Unit," IATBR 2009
13. Ferdous, N., **N. Eluru**, C.R. Bhat, and I. Meloni, "A Multivariate Ordered Response Model System for Adults' Weekday Activity Episode Generation by Activity Purpose and Social Context," IATBR 2009
14. **Eluru, N.**, C.R. Bhat, R.M. Pendyala, and K.C. Konduri, "A Joint Flexible Econometric Model System of Household Residential Location and Vehicle Fleet Composition/Usage Choices," 56th Annual North American Meetings of the Regional Science Association International, 2009
15. **Eluru, N.**, A.R. Pinjari, R.M. Pendyala, and C.R. Bhat, "A Unified Model System of Activity Type Choice, Activity Duration, Activity Timing, Mode Choice, and Destination Choice," 56th Annual North American Meetings of the Regional Science Association International, 2009

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16. Spissu, E., **N. Eluru**, I.N. Sener, C.R. Bhat, and I. Meloni, "Spatial and social interdependencies in work participation during traditionally off-work hours," Presented at the International Choice Modeling Conference, Leeds 2009
17. **Eluru, N.**, "Developing Advanced Econometric Models to study the influence of Transportation and Land-use interactions on Activity-Travel Pattern Attributes" Doctoral Student Research presentation, Transportation Research Board (TRB) Annual Meeting, Washington D.C., 2009
18. Bhat, C.R., I.N. Sener, and **N. Eluru**, "Incorporating Time and Space in Large-Scale Activity-Based Systems: Emerging Methods and Techniques" Invited presentation Transportation Research Board (TRB) Annual Meeting, Washington D.C., 2009
19. Meloni I., A. Portoghese, E. Spissu, **N. Eluru**, A.R. Pinjari and C.R. Bhat, "On promoting the active transportation to school trips: an activity-based application" XV National Conference: Italian Society of Transportation, 2008
20. **Eluru, N.**, Sener, I.N., C.R. Bhat, R.M. Pendyala, and K.W. Axhausen, "Joint Modeling of Mobility Choices" Presented at the 54th North American Regional Science Conference, Savannah, GA, 2007
21. Spissu, E., **N. Eluru**, R.M. Pendyala, C.R. Bhat, and K. Konduri, "A Comparative Analysis of Weekday Time Use and Activity Patterns Between Italy and the United States," Presented at the International Association for Time-Use Research, Washington D.C. 2007
22. Mirzaei, A., B. Chen, K. Cervenka, **N. Eluru**, C. R. Bhat, "A Comprehensive Econometric Micro-simulator for Daily Activity-travel Patterns (CEMDAP): Design, Sensitivity Testing, and Evaluation as a Policy Analysis Tool" Presented at the 11th TRB National Transportation Planning Applications Conference, Daytona Beach, FL. 2007
23. **Eluru, N.**, I.N. Sener, I. Hallett, C.R. Bhat, Machemehl R., "The Effects of On-Street Parking on Cyclist Route Choice and the Operational Behavior of Cyclists and Motorists", Presentations for the Project Monitoring Committee, Texas Department of Transportation, 2006- 2007
24. Waddell, P., C.R. Bhat, **N. Eluru**, L. Wang and R. Pendyala, "Modeling the Interdependence in Household Residence and Workplace Choices," 2006 International Association for Travel Behavior Research Conference, Kyoto, Japan, August 2006
25. **Eluru, N.**, A.R. Pinjari, R. Copperman, I.N. Sener, J.Y. Guo, S. Srinivasan, and C.R. Bhat. "Moving toward a disaggregate spatial configuration in activity-travel microsimulation models: An empirical assessment using CEMDAP", presented at the 53rd Annual North American Meetings of the Regional Science Association International, Toronto, 2006
26. Bhat, C.R., J.Y. Guo, S. Srinivasan, A.R. Pinjari, **N. Eluru**, R. Copperman, and I.N. Sener. "CEMDAP: A second generation activity-based travel modeling system for metropolitan areas, " North Central Texas Council of Governments (NCTCOG), Arlington, TX, 2006
27. Bhat, C.R., J.Y. Guo, S. Srinivasan, A.R. Pinjari, **N. Eluru**, I.N. Sener, R. Copperman, and P. Ghosh. "Comprehensive Econometric Micro-simulator for Daily Activity-Travel Patterns: New developments and application results," Innovations in Travel Modeling Conference, Austin, TX, 2006
28. Bhat, C.R., J.Y. Guo, S. Srinivasan, A. Pinjari, R. Copperman, **N. Eluru**, S. Thaker, I. Sener, and A. Yarlagadda, "CEMDAP-II: A Second Generation Activity-Based Travel Modeling System for Metropolitan Areas in Texas," *North Central Texas Council of Governments (NCTCOG)*, Arlington, TX, 2005
29. Bhat, C.R., J.Y. Guo, S. Srinivasan, A. Pinjari, R. Copperman, and **N. Eluru**, "An Update of CEMDAP for Activity-Travel Pattern Generation," *NCTCOG*, Arlington, TX, 2005.

TECHNICAL REPORTS

1. Sener, I.N., **N. Eluru**, and C.R. Bhat, "On Jointly Analyzing the Physical Activity Participation Levels of Individuals in a Family Unit," Technical Report, prepared for the Southwest Region University Transportation Center, 2010

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2. **Eluru, N.**, R. Paleti, and C.R. Bhat, "Examining the Influence of Tolls on Commute Departure and Route Choice Behavior in the Chicago Region," Technical Report, prepared for the Southwest Region University Transportation Center, 2010
3. **Eluru, N.**, A. Abdul, C.R. Bhat, J.B. Bowman, M. Bradley, R. Pendyala, and D. Schmitt, "Sensitivity of Four-step versus Activity-Based Models to Transportation System Changes" Technical memorandums 1-4 submitted to Ohio Department of Transportation, 2008-2009
4. **Eluru, N.**, A.R. Pinjari, J.Y. Guo, I.N. Sener, S. Srinivasan, R.B. Copperman, and C.R. Bhat, "Population Updating System Structures and Models Embedded Within the Comprehensive Econometric Microsimulator for Urban Systems (CEMUS)", Technical Report, prepared for the Southwest Region University Transportation Center, 2007
5. Torrance, K., I.N. Sener, R. Machemehl, C.R. Bhat, I. Hallett, **N. Eluru**, I. Hlavacek, and A. Karl, "The Effects of On-Street Parking on Cyclist Route Choice and the Operational Behavior of Cyclists and Motorists)", Report 5755-1, prepared for the Texas Department of Transportation, 2007
6. Bhat, C.R., J. Guo, S. Srinivasan, A. Pinjari, **N. Eluru**, R. Copperman, and I.N. Sener, "The Comprehensive Econometric Microsimulator for Daily Activity-travel Patterns (CEMDAP)," Report 4080-S, prepared for the Texas Department of Transportation, October 2006
7. Bhat, C.R., A. Pinjari, **N. Eluru**, R. Copperman, I.N. Sener, J.Y. Guo, and S. Srinivasan, "CEMDAP User's Manual," Product 4080-P9, prepared for the Texas Department of Transportation, September 2006, Revised October 2007
8. Pinjari, A.R., **N. Eluru**, R. Copperman, I.N. Sener, J. Guo, S. Srinivasan, and C.R. Bhat. "Activity-based travel-demand analysis for metropolitan areas in Texas: CEMDAP modeling and software enhancements and validation", prepared for the Texas Department of Transportation, 2006
9. Committee on Guidelines for the Humane Transportation of Research Animals, "Guidelines for the Humane Transportation of Research Animals," Institute for Laboratory Animal Research, National Research Council, National Academies Press, Washington, D.C., 2006.
10. Guo, J.Y., S. Srinivasan, **N. Eluru**, A.R. Pinjari, R. Copperman, and C.R. Bhat. "Activity-based travel-demand analysis for metropolitan areas in Texas: CEMSELTS model estimations and prediction procedures, 4874 zone system CEMDAP model estimations and procedures, and the SPG software details", prepared for the Texas Department of Transportation, 2005
11. Bhat, C.R., J.Y. Guo, S. Srinivasan, A. Sivakumar, A.R. Pinjari, and **N. Eluru**, "Activity-based travel-demand analysis for metropolitan areas in Texas: Representation and analysis frameworks for population updating and land-use forecasting", prepared for the Texas Department of Transportation, 2004

SKILLS

- Programming experience includes Visual C/Visual C++, Visual .Net, SQL, Java
- Proficient in data analysis tools: SPSS, SAS, LIMDEP, STATA
- Extensive experience in the use of modeling software: GAUSS and MATLAB
- Other software used: ARENA, R, GAMS, PostgreSQL, LINDO, HTML
- Proficient in MS Office packages: Word, Excel, PowerPoint, Access and FrontPage

AWARDS AND HONORS

- Recipient of an **Honorable Mention** Dissertation award from **INFORMS** Transportation Science and Logistics (TSL) Dissertation Committee 2010
- Recipient of Department of Civil Engineering **Kolodzey Travel Grant** (Univ. of Texas, Austin) 2010
- Recipient of North American Regional Science Council (NARSC) **Graduate Student Paper Finalist Award** 2009
- Recipient of the Office of Graduate Studies (Univ. of Texas, Austin) **Professional Development Award** 2009

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- Awarded the **Robert Herman Outstanding Doctoral Student** of the Year by South-West Region University Transportation Center (SWUTC) 2008-2009
- Recipient of the **International Roads Federation (IRF) Executive Leadership Fellowship Grant** 2009
- Recipient of the **Mary Kate Collins Memorial** Endowed Presidential Fellowship (Univ. of Texas, Austin) 2008-2009
- Accepted into the **Graduate Fellows Program** of the Department of Statistics and Scientific Computation (Univ. of Texas, Austin) 2008
- Recipient of the **Talbot S. Huff, Sr. Highway Engineering Graduate Fellowship** from the Department of Civil and Environmental Engineering (Univ. of Texas, Austin) 2007
- Awarded the **International Association for Time-Use Research** travel grant 2007
- Recipient of the **Boeing Scholarship** from the Department of Civil and Environmental Engineering (Univ. of Texas, Austin) 2006
- Recipient of the **Robert Herman Endowed Scholarship** from the Department of Civil and Environmental Engineering (Univ. of Texas, Austin) 2006
- Recipient of the **National Talent Search Examination** merit certificate 1998

PROFESSIONAL AFFILIATIONS AND ACHIVEMENTS

- **Journals refereed:** Transportation Research Part B: Methodological, Transportation Letters, Energy Economics, Urban Studies, Transportation Research Board (*Committees served:* Travel Demand Forecasting, Committee on Traveler Behavior and Values, Transportation Education and Training, Statistical Methodology and Statistical Computer Software in Transportation, Transit Marketing and Fare Policy) 2005 - Present
- **Conferences refereed:** World Conference on Transport Research (WCTR) XII 2010, International Association for Travel Behavior Research (*IATBR*) 2009 2008 - Present
- Young committee member of **Transportation Research Board (TRB) Committee on "Transportation Education and Training"** 2008 - Present
- Finisher AT&T Austin **Marathon** 2008
- Vice-President, University of Texas at Austin, **ITS America** 2005 - 2006
- Student **Volunteer** for the "INNOVATIONS IN TRAVEL MODELING" conference 2006
- Member, University of Texas at Austin, **ITE** and **ITS Chapters** 2004 - Present
- Finance Secretary, Board of Organizers: **SAARANG**, Indian Institute of Technology, Madras 2004
- Board of Organizers of **Civil Engineering Festival**, Indian Institute of Technology, Madras 2004