

Kanok Boriboonsomsin, Ph.D., P.E.

College of Engineering – Center for Environmental Research and Technology
University of California, Riverside
1084 Columbia Ave, Riverside, CA 92507, USA
Phone: +1 951 781 5792, Fax: +1 951 781 5790, Email: kanok@cert.ucr.edu

EDUCATION

2004	Ph.D., Transportation Engineering University of Mississippi, Oxford, Mississippi
2001	M.Eng., Infrastructure Engineering Asian Institute of Technology, Bangkok, Thailand
1999	B.Eng., Civil Engineering Chulalongkorn University, Bangkok, Thailand

WORK EXPERIENCE

2007 – Present	Assistant Research Engineer College of Engineering-Center for Environmental Research and Technology University of California, Riverside, CA
2005 – 2007	Postdoctoral Scholar College of Engineering-Center for Environmental Research and Technology University of California, Riverside, CA
2004 – 2005	Visiting Assistant Professor Department of Civil Engineering Ohio Northern University, Ada, OH

PROFESSIONAL LICENSURES

2008 – Present	Professional Traffic Engineer, State of California
2008 – Present	Professional Civil Engineer, State of Michigan
1999 – Present	Civil Engineer, Thailand

PROFESSIONAL MEMBERSHIPS

Member	Intelligent Transportation Society of America (ITSA)
Member	Transportation Research Board (TRB) <ul style="list-style-type: none">• ADC20: Transportation and Air Quality Committee• Planning & Environment Group's Young Member Council
Member	American Society of Civil Engineers (ASCE)

Member	Institute of Transportation Engineers (ITE)
Member	International Society for Maintenance and Rehabilitation of Transportation Infrastructures (iSMARTi)
	<ul style="list-style-type: none">• SC010: Infrastructure Asset Management Committee• SC020: Environment and Sustainable Development Committee

RESEARCH INTERESTS

- Intelligent transportation systems
- Traffic simulation
- Traffic operations
- Transportation modeling
- Vehicle emissions modeling
- Vehicle activity analysis
- GIS applications in transportation
- Sustainable transportation

REFEREED JOURNAL ARTICLES

1. **Boriboonsomsin, K.**, Scora, G., and Barth, M. (2010). "Analysis of heavy-duty diesel truck activity and fuel economy based on electronic control module data." Accepted for publication in *Transportation Research Record*.
2. Wu, G., **Boriboonsomsin, K.**, Zhang, W.-B., Li, M., and Barth, M. (2010). "Energy and emission benefit comparison between stationary and in-vehicle advanced driving alert systems." Accepted for publication in *Transportation Research Record*.
3. Zhu, W., **Boriboonsomsin, K.**, and Barth, M. (2010). "Defining a freeway mobility index for roadway navigation." *Journal of Intelligent Transportation Systems*, 14(1), 37-50.
4. **Boriboonsomsin, K.**, Barth, M., and Xu, H. (2009). "Improvements to on-road mobile emissions modeling of freeways with high-occupancy vehicle facilities." *Transportation Research Record*, 2123, 109-118.
5. **Boriboonsomsin, K.** and Barth, M. (2009). "Impacts of road grade on fuel consumption and carbon dioxide emissions evidenced by use of advanced navigation systems." *Transportation Research Record*, 2139, 21-30.
6. Barth, M. and **Boriboonsomsin, K.** (2009). "Energy and emissions impacts of a freeway-based dynamic eco-driving system." *Transportation Research Part D*, 14, 400-410.
7. Li, M., **Boriboonsomsin, K.**, Wu, G., Zhang, W.-B., and Barth, M. (2009). "Traffic energy and emission reductions at signalized intersections: a study of the benefits of advanced driver information." *International Journal of Intelligent Transportation Systems Research*, 7(1), 49-58.
8. Barth, M. and **Boriboonsomsin, K.** (2008). "Real-world carbon dioxide impacts of traffic congestion." *Transportation Research Record*, 2058, 163-171.
9. **Boriboonsomsin, K.** and Barth, M. (2008). "Impacts of freeway high-occupancy vehicle lane configuration on vehicle emissions." *Transportation Research Part D*, 13(2), 112-125.

10. Reza, F., **Boriboonsomsin, K.**, and Bazlamit, S. (2007). "The development of a pavement quality index for the Ohio Department of Transportation." *International Journal of Pavements*, 6(1), 1-12.
11. **Boriboonsomsin, K.** and Barth, M. (2007). "Evaluating air quality benefits of freeway high occupancy vehicle lanes in Southern California." *Transportation Research Record*, 2011, 137-147.
12. **Boriboonsomsin, K.** and Reza, F. (2007). "Mix design and benefit evaluation of high solar reflectance concrete for pavements." *Transportation Research Record*, 2011, 11-20.
13. **Boriboonsomsin, K.** and Uddin, W. (2006). "Simplified methodology to estimate emissions from mobile sources for ambient air quality assessment." *Journal of Transportation Engineering*, 132(10), 817-828.
14. Uddin, W., **Boriboonsomsin, K.**, and Garza, S. (2005). "Transportation related environmental impacts and societal costs for life-cycle analysis of costs and benefits." *International Journal of Pavements*, 4(1-2), 92-104.

CONFERENCE PROCEEDINGS (FULL PAPER REVIEWED)

1. **Boriboonsomsin, K.**, Barth, M., Zhu, W., and Vu, A. (2010). "ECO-routing navigation system based on multi-source historical and real-time traffic information." *Proceedings of the 13rd International IEEE Conference on Intelligent Transportation Systems*, Madeira Island, Portugal, September 19-22.
2. Vu, A., **Boriboonsomsin, K.**, and Barth, M. (2010). "Vehicle parameterization and tracking from traffic videos." *Proceedings of the 13rd International IEEE Conference on Intelligent Transportation Systems*, Madeira Island, Portugal, September 19-22.
3. Boskovich, S., **Boriboonsomsin, K.**, and Barth, M. (2010). "A developmental framework towards dynamic incident rerouting using vehicle-to-vehicle communication and multi-agent systems." *Proceedings of the 13rd International IEEE Conference on Intelligent Transportation Systems*, Madeira Island, Portugal, September 19-22.
4. **Boriboonsomsin, K.**, Scora, G., and Barth, M. (2010). "Analysis of heavy-duty diesel truck activity and fuel economy based on electronic control module data." *Proceedings of the 89th Annual Meeting of the Transportation Research Board (DVD)*, Washington, DC, January 10-14.
5. Zhu, W., **Boriboonsomsin, K.**, and Barth, M. (2010). "Estimating truck traffic speed from single-loop detector data." *Proceedings of the 89th Annual Meeting of the Transportation Research Board (DVD)*, Washington, DC, January 10-14.
6. Scora, G., **Boriboonsomsin, K.**, and Barth, M. (2010). "Effects of operational variability on heavy-duty truck greenhouse gas emissions." *Proceedings of the 89th Annual Meeting of the Transportation Research Board (DVD)*, Washington, DC, January 10-14.
7. Wu, G., **Boriboonsomsin, K.**, Zhang, W.-B., Li, M., and Barth, M. (2010). "Energy and emission benefit comparison between stationary and in-vehicle advanced driving alert systems."

Proceedings of the 89th Annual Meeting of the Transportation Research Board (DVD), Washington, DC, January 10-14.

8. Mandava, S., **Boriboonsomsin, K.**, Barth, M. (2009). "Arterial velocity planning based on traffic signal information under light traffic conditions." *Proceedings of the 12th International IEEE Conference on Intelligent Transportation Systems*, St. Louis, MO, October 3-7.
9. Barth, M. and **Boriboonsomsin, K.** (2009). "Environmentally beneficial intelligent transportation systems." *Proceedings of the 12th IFAC Symposium on Control in Transportation Systems*, Redondo Beach, CA, September 2-4.
10. **Boriboonsomsin, K.**, Barth, M., and Xu, H. (2009). "Improvements to on-road mobile emissions modeling of freeways with high-occupancy vehicle facilities." *Proceedings of the 88th Annual Meeting of the Transportation Research Board (DVD)*, Washington, DC, January 11-15.
11. **Boriboonsomsin, K.** and Barth, M. (2009). "Fuel and CO₂ impacts from advanced navigation systems that account for road grade." *Proceedings of the 88th Annual Meeting of the Transportation Research Board (DVD)*, Washington, DC, January 11-15.
12. Zhu, W., **Boriboonsomsin, K.**, and Barth, M. (2008). "Mobility index-based navigation for mandatory re-routing scenarios." *Proceedings of the 11th International IEEE Conference on Intelligent Transportation Systems*, Beijing, China, October 12-15.
13. Zhu, W., **Boriboonsomsin, K.**, and Barth, M. (2008). "A new methodology for processing time-varying traffic data in multiple states." *Proceedings of the 11th International IEEE Conference on Intelligent Transportation Systems*, Beijing, China, October 12-15.
14. Barth, M. and **Boriboonsomsin, K.** (2008). "Real-world carbon dioxide impacts of traffic congestion." *Proceedings of the 87th Annual Meeting of the Transportation Research Board (DVD)*, Washington, DC, January 13-17.
15. **Boriboonsomsin, K.** and Barth, M. (2008). "Impacts of freeway high-occupancy vehicle lane configuration on vehicle emissions." *Proceedings of the 87th Annual Meeting of the Transportation Research Board (DVD)*, Washington, DC, January 13-17.
16. Servin, O., **Boriboonsomsin, K.**, and Barth, M. (2008). "A preliminary design of speed control strategies in dynamic intelligent speed adaptation system for freeways." *Proceedings of the 87th Annual Meeting of the Transportation Research Board (DVD)*, Washington, DC, January 13-17.
17. **Boriboonsomsin, K.**, Servin, O., and Barth, M. (2007). "Selection of control speeds in dynamic intelligent speed adaptation system: a preliminary analysis." *Proceedings of the 14th International Conference – Road Safety on Four Continents (CD-ROM)*, Bangkok, Thailand, November 14-16.
18. Barth, M., **Boriboonsomsin, K.**, and Vu, A. (2007). "Environmental-friendly navigation." *Proceedings of the 10th International IEEE Conference on Intelligent Transportation Systems (CD-ROM)*, Seattle, WA, September 30 – October 3.
19. Zhu, W., **Boriboonsomsin, K.**, and Barth, M. (2007). "Microscopic analysis of traffic flow quality." *Proceedings of the 10th International IEEE Conference on Intelligent Transportation Systems (CD-ROM)*, Seattle, WA, September 30 – October 3.

20. **Boriboonsomsin, K.** and Barth, M. (2007). "Evaluating air quality benefits of freeway high occupancy vehicle lanes in Southern California." *Proceedings of the 86th Annual Meeting of the Transportation Research Board (CD-ROM)*, Washington, DC, January 21-25.
21. **Boriboonsomsin, K.** and Reza, F. (2007). "Mix design and benefit evaluation of high solar reflectance concrete for pavements." *Proceedings of the 86th Annual Meeting of the Transportation Research Board (CD-ROM)*, Washington, DC, January 21-25.
22. Servin, O., **Boriboonsomsin, K.**, and Barth, M. (2006). "An energy and emission impact evaluation of intelligent speed adaptation." *Proceedings of the 9th International IEEE Conference on Intelligent Transportation Systems (CD-ROM)*, Toronto, Canada, September 17-20.
23. **Boriboonsomsin, K.** and Uddin, W. (2006). "A consideration of heat-island effect in ground-level ozone forecasting model and its application in rural areas of Northern Mississippi." *Proceedings of the 85th Annual Meeting of the Transportation Research Board (CD-ROM)*, Washington, DC, January 22-26.
24. Reza, F., **Boriboonsomsin, K.**, and Bazlamit, S. (2006). "Development of a pavement quality index for the State of Ohio." *Proceedings of the 85th Annual Meeting of the Transportation Research Board (CD-ROM)*, Washington, DC, January 22-26.
25. Reza, F., Bazlamit, S., and **Boriboonsomsin, K.** (2005). "Composite performance index for concrete pavement." *Proceedings of the 6th International Congress on Global Construction: Ultimate Concrete Opportunities*, Dundee, UK, July 5-7.
26. Uddin, W., **Boriboonsomsin, K.**, and Garza, S. (2005). "Transportation related environmental impacts and societal costs for life-cycle analysis of costs and benefits." **First Paper Award**, *Proceedings of the 2005 International Symposium on Pavement Recycling*, São Paulo, Brazil, March 14-16.
27. Uddin, W. and **Boriboonsomsin, K.** (2005). "Air quality management using vehicle emission modeling and spatial technologies." *Proceedings of the Environment 2005: International Conference on Sustainable Transportation in Developing Countries*, Abu Dhabi, UAE, January 30 – February 2.
28. **Boriboonsomsin, K.** and Uddin, W. (2005). "Tropospheric ozone modeling considering vehicle emissions and point & aviation sources, validation, and implementation in rural areas." *Proceedings of the 84th Annual Meeting of the Transportation Research Board (CD-ROM)*, Washington, DC, January 9-13.
29. Uddin, W., Garza, S., and **Boriboonsomsin, K.** (2003). "A 3D-FE simulation study of the effects of nonlinear material properties on pavement structural response analysis and design." *Proceedings of the 3rd International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, Guimarães, Portugal, July 7-10.
30. Uddin, W. and **Boriboonsomsin, K.** (2003). "A synthesis study and GIS database for bridge cathodic protection projects." *Proceedings of the 82nd Annual Meeting of the Transportation Research Board (CD-ROM)*, Washington, DC, January 12-16.
31. Garza, S. and **Boriboonsomsin, K.** (2002). "Impact of traffic volume change on air quality." **Runner-up Award**, *Southern District ITE 2002 Graduate Student Paper Competition*, March.

32. **Boriboonsomsin, K.** and Herabat, P. (2001). "Suggested performance measures for traffic sign structures." *Proceedings of the 7th National Convention on Civil Engineering*, Bangkok, Thailand, May 17-18.

CONFERENCE PAPERS (ABSTRACT REVIEWED)

1. Scora, G., **Boriboonsomsin, K.**, and Barth, M. (2009). "The importance of road grade and vehicle speed on heavy-duty truck fuel economy and emissions." Submitted to *the 19th CRC On-Road Vehicle Emissions Workshop*, San Diego, CA, March 23-25.
2. Barth, M., **Boriboonsomsin, K.**, Zhu, W., Vu, A., Gerdes, A., Lee, C., and Rosario, D. (2008). "Environmental-friendly navigation: technology description and field operational testing plan." *15th World Congress on Intelligent Transportation Systems*, New York City, NY, November 16-20.
3. Wu, G., Zhang, W.-B., Li, M., Barth, M., **Boriboonsomsin, K.**, Lee, C., Gerdes, A., and Rosario, D. (2008). "Traffic emission reduction at signalized intersections: a simulation study of benefits of advanced driver information." *15th World Congress on Intelligent Transportation Systems*, New York City, NY, November 16-20.
4. Zhu, W., **Boriboonsomsin, K.**, and Barth, M. (2008). "Mobility index-based navigation for mandatory re-routing scenarios." *2nd Annual California University Transportation Centers – PATH Conference*, Los Angeles, CA, November 6-7.
5. **Boriboonsomsin, K.** and Barth, M. (2007). "A simple screening tool for evaluating walkability/bikability of travel routes to schools." *4th Asian Regional Conference on Safe Communities*, Bangkok, Thailand, November 22-24.
6. Barth, M., **Boriboonsomsin, K.** and Vu, A. (2007). "Environmentally-friendly navigation." *1st Annual California University Transportation Centers – PATH Conference*, Berkeley, CA, October 29-31.
7. **Boriboonsomsin, K.**, Barth, M., and Scora, G. (2007). "Estimating the emissions inventory of high-occupancy vehicle facilities." *17th CRC On-Road Vehicle Emissions Workshop*, San Diego, CA, March 26-28.
8. **Boriboonsomsin, K.** (2006). "Integrated transportation/emissions modeling: a microscopic approach." *Citilabs International User Conference*, Palm Springs, CA, November 5.
9. **Boriboonsomsin, K.** and Uddin, W. (2005). "Ground-level ozone forecasting model considering precursor emissions and heat-island effect." *NOAA/EPA Golden Jubilee Symposium on Air Quality Modeling and Its Application*, Durham, NC, September 20-21.
10. **Boriboonsomsin, K.** and Uddin, W. (2005). "Pavement surface type and vector map extraction using modern spaceborne remote sensing and spatial technologies." *Pavement Performance Data Analysis Forum*, Washington, DC, January 8.

11. **Boriboonsomsin, K.** and Uddin, W. (2004). "A Methodology for trend analysis of land development and commercial/residential growth in rural cities in Mississippi." *6th Annual Memphis Areas Engineering and Sciences Conference*, Memphis, TN, May 12.

BOOK CHAPTERS

1. Songchitruksa, P., **Boriboonsomsin, K.**, and Barth, M. (2009). "Impact of rising fuel prices on prevailing traffic speed on freeway in Houston, Texas." *Transportation Land Use, Planning, and Air Quality*, ISBN 978-0-7844-1059-2, American Society of Civil Engineers, S. Pulugurtha,(Eds.), 31-40, 2009.
2. **Boriboonsomsin, K.** and Barth, M. (2007). "A microscopic approach to modeling air quality impacts of HOV lane conversion" *Transportation Land Use, Planning, and Air Quality*, ISBN 978-0-7844-0960-2, American Society of Civil Engineers, S. Pulugurtha, R. O'Loughlin, S. Hallmark (Eds.), 338-344, 2008.

OTHER PUBLICATIONS

1. Barth, M. and **Boriboonsomsin, K.** (2010). "Intelligent transportation systems as a way to reduce greenhouse gas emissions." *UCTC Policy Brief*.
2. Barth, M. and **Boriboonsomsin, K.** (2009). "Traffic congestion and greenhouse gases." *Access Magazine*, 35, 2-9.

RESEARCH REPORTS

1. Li, M., **Boriboonsomsin, K.**, Kohut, N., Wu, G., Song, M. K., Vu, A., Misener, J., Zhang, W.-B., Barth, M., Hedrick, J. K., and Borrelli, F. (2010). "Audi 'Clean Air, A Viable Planet' Research Initiative." Final report to Volkswagen Group of America, May, 77 pp.
2. Allison, J. E., Johnson, M. Barth, M., McLaughlin, J., **Boriboonsomsin, K.**, and Medina, X. (2010). "The hope of New Urbanism: Energy conservation and sustainability through urban design." Final report to The John Randolph and Dora Haynes Foundation, July.
3. **Boriboonsomsin, K.**, Zhu, W., Scora, G., and Barth, M. (2009). "Improving greenhouse gas emissions inventory estimation of heavy-duty trucks." Final report to the Federal Highway Administration, November, 70 pp.
4. Barth, M., **Boriboonsomsin, K.**, and Scora, G. (2009). "Evaluation and validation of CO2 estimates of EMFAC and OFFROAD through vehicle activity analysis." Final report to the California Air Resources Board, November, 120 pp.
5. **Boriboonsomsin, K.** and Barth, M. (2009). "Implementation and evaluation of adaptive transit signal priority along El Camino Real – energy and emission evaluation." Technical report to the California Partners for Advanced Transit and Highways, May, 10 pp.

6. **Boriboonsomsin, K.** and Barth, M. (2009). "Development of TRANSIMS synthetic population data for Riverside County." Final report to the Transportation and Land Management Agency, County of Riverside, March, 70 pp.
7. **Boriboonsomsin, K.** and Barth, M. (2009). "Development of advanced ECO-driving strategies: Phase II research." Final report to Nissan Technical Center North America, Inc., March, 61 pp.
8. Barth, M., **Boriboonsomsin, K.**, and Scora, G. (2008). "Evaluation and validation of CO2 estimates of EMFAC and OFFROAD through vehicle activity analysis: Phase I - literature and data review & Phase II - industry and other agencies survey." Technical report to the California Air Resources Board, January, 69 pp.
9. **Boriboonsomsin, K.** and Barth, M. (2008). "Paints and Architectural Coatings Environmental Study (PACES) – Task 3: Coating application activity analysis." Phase I final report to the National Paint & Coatings Association, September, 40 pp.
10. Barth, M., **Boriboonsomsin, K.**, Vu, A., and Scora, G. (2008). "Development of advanced ECO-driving strategies Phase I." Final report to Nissan Technical Center North America, Inc., March, 38 pp.
11. Barth, M., Zhu, W., **Boriboonsomsin, K.**, and Ordonez, L. (2007). "Analysis of GPS-based data for light-duty vehicles." *Contract No. 04-327 UCR*, Final report to the California Air Resources Board, January, 211 pp.
12. **Boriboonsomsin, K.** and Barth, M. (2006). "Modeling the effectiveness of HOV lanes at improving air quality." *Contract No. RTA 65A0196*, Final report to the California Department of Transportation, December, 122 pp.
13. **Boriboonsomsin, K.** and Barth, M. (2006). "Evaluating air quality benefits of proposed network improvements on Interstate 10 in the Coachella Valley." Final report to the Environmental Research Institute, University of California, Riverside, July, 26 pp.
14. Reza, F. and **Boriboonsomsin, K.** (2006). "High albedo and environment-friendly concrete for smart growth and sustainable development." Final report to the U.S. Environmental Protection Agency, *Report No. SU832477*, April, 42 pp.
15. Reza, F., **Boriboonsomsin, K.**, and Bazlamit, S. (2005). "Development of a composite pavement performance index." Final report to the Ohio Department of Transportation, *Report No. ST/SS/05-001*, September, 92 pp.
16. Uddin, W., **Boriboonsomsin, K.**, and Garza, S. (2004). "NCRST-E air quality project: air quality modeling, analysis, and implementation in northern Mississippi." *Report No. UM-CAIT/2004-01*, Final report to U.S. DOT Research and Special Program Administration, June, 169 pp.
17. Uddin, W. and **Boriboonsomsin, K.** (2002). "A synthesis study and GIS database for bridge cathodic protection projects." *Report No. UM-CAIT/2002-01*, Final report to Innovative Business Solutions inc., July, 36 pp.

SCHOLARLY SERVICES

Reviewer for:	<p>IEEE Transactions on Intelligent Transportation Systems, 2010 (2 manuscripts)</p> <p>Transportation Research Part B: Methodological, 2010 (1 manuscript)</p> <p>Environmental Science & Technology, 2010 (1 manuscript)</p> <p>13th International IEEE Conference on Intelligent Transportation Systems, 2010 (3 papers)</p> <p>2nd International Conference on Transport Infrastructures, 2010 (2 papers)</p> <p>Environmental Science & Technology, 2009 (1 manuscript)</p> <p>89th Annual Meeting of the Transportation Research Board, 2009 (5 papers)</p> <p>12th International IEEE Conference on Intelligent Transportation Systems, 2009 (3 papers)</p> <p>Oregon Transportation Research & Education Consortium, 2009 (1 proposal)</p> <p>The Open Transportation Journal, 2009 (1 manuscript)</p> <p>6th International Conference on Maintenance and Rehabilitation of Pavements and Technological Control, 2009 (5 papers)</p> <p>88th Annual Meeting of the Transportation Research Board, 2008 (6 papers)</p> <p>11th International IEEE Conference on Intelligent Transportation Systems, 2008 (3 papers)</p> <p>Transportation Research Part A: Policy and Practice, 2008 (1 manuscript)</p> <p>International Journal of Sustainable Transportation, 2008 (1 paper)</p> <p>87th Annual Meeting of the Transportation Research Board, 2007 (7 papers)</p> <p>Transportation Research Part A: Policy and Practice, 2007 (1 manuscript)</p> <p>Oregon Transportation Research & Education Consortium, 2007 (1 proposal)</p> <p>Transportation, Land Use, Planning, and Air Quality Conf., 2007 (1 paper)</p> <p>86th Annual Meeting of the Transportation Research Board, 2006 (5 papers)</p> <p>IEEE Intelligent Vehicle Symposium, 2006 (1 paper)</p> <p>6th Eastern Asia Society for Transportation Studies Conf., 2005 (2 papers)</p>
2008 – Present	Editorial Board Member, The Open Transportation Journal
June 2010	Proposal review panel member for National Science Foundation
June 2010	Thesis committee member for Sindhura Mandava Master of Science (Electrical Engineering) University of California, Riverside
August 2009	Peer reviewer for the U.S. Environmental Protection Agency on the report “Draft MOVES2009 highway vehicle population and activity data”
March 2009	Dissertation committee member for Weihua Zhu Ph.D. (Electrical Engineering) University of California, Riverside
June 2008	Thesis committee member for Henry Chen Master of Science (Electrical Engineering) University of California, Riverside
March 2008	Thesis committee member for Oscar Servin

	Master of Science (Electrical Engineering) University of California, Riverside
December 2006	Thesis committee member for Angelo Ledesma Master of Science (Electrical Engineering) University of California, Riverside
2004 – 2005	Advisor for Ohio Northern University team Ohio Student Asphalt Mixture Design Competition
December 2004	Instructor of Engineering Pathways Project for middle school students Ohio Northern University
2003 – 2004	Graduate student senator of Department of Civil Engineering University of Mississippi
March 2004	Judge in 16 th Annual Region VII Science and Engineering Fair University of Mississippi
March 2003	Judge in 15 th Annual Region VII Science and Engineering Fair University of Mississippi
March 2002	Judge in 14 th Annual Region VII Science and Engineering Fair University of Mississippi

HONORS, AWARDS, AND SCHOLARSHIPS

February 2007	Pyke Johnson Award Nominee Transportation and Air Quality Committee, Transportation Research Board
May 2006	Honorable mention, National P3 Design Competition for Sustainability U.S. Environmental Protection Agency
March 2005	First paper award, 2005 International Symposium on Pavement Recycling Conference Organizing Committee
May 2004	The National Dean's List
April 2004	Chi Epsilon National Civil Engineering Honor Society
Spring 2004	Dissertation fellowship University of Mississippi
Summer 2003	Summer research fellowship University of Mississippi
July 2003	Graduate student scholarship Air & Waste Management Association, Mississippi Chapter

March 2003	Phi Kappa Phi Honor Society
March 2002	Runner-up award, 2002 Graduate Student Paper Competition Institute of Transportation Engineers, Southern District
September 1999	Academic scholarship Asian Institute of Technology

TEACHING EXPERIENCE

2008 – Present	Invited Lecturer Department of Electrical Engineering, University of California, Riverside EE246: Intelligent Transportation Systems
Aug 2004 – Apr 2005	Visiting Assistant Professor Department of Civil Engineering, Ohio Northern University CE351: Transportation Systems and Highway Engineering CE352: Traffic Engineering CE353: Pavement Engineering CE415: CE Senior Design Project CE471: Urban and Transportation Planning CE203: Surveying
Aug 2004 – Apr 2005	Instructor Department of Civil Engineering, University of Mississippi ENGR207: Engineering Graphics
Jan 2002 – May 2004	Graduate Teaching Assistant Department of Civil Engineering, University of Mississippi CE481: Transportation Engineering CE315: Civil Engineering Materials CE417: Construction Engineering and Management ENGR207: Engineering Graphics CE455: Senior Design I CE456: Senior Design II