Anuj Sharma, PhD

Pitts Des Moines Inc. Professor of Civil Engineering
Co-Director, REACTOR Laboratory
Institute for Transportation
Iowa State University
2711 South Loop Dr. Suite 4700
Ames, IA 50010

(515) 294-3624
anujs@iastate.edu

IOWA STATE UNIVERSITY
Institute for Transportation

EDUCATION

- PhD, Civil Engineering, Purdue University, Lafayette, IN, 2008
- MS, Civil Engineering, Texas A&M University, College Station, TX, 2004
- BE, Civil Engineering, Regional Engineering College, Rourkela, India, 2001

PROFESSIONAL EXPERIENCE

- Pitts Des Moines Inc. Professor of Civil Engineering, Iowa State University, 2019–present
- Associate Professor, Civil Construction and Environmental Engineering, Iowa State University, Ames, IA, August 2014–2019
- Assistant Professor, Department of Civil Engineering, University of Nebraska-Lincoln, Lincoln, NE, August 2008–July 2014
- Programmer Analyst, Cognizant Technology Solutions, India, 2001–2002

SELECTED RESEARCH PROJECTS

- *Topic 3, Iowa State University - FHWA EAR BAA 2016 InterchangeSE: a Federated Multi-Modal Simulation Environment for Studying Interactions between Different Modes of Travel*, current, PI
- *Assessing the Impact of Game Day Schedule and Opponents on Travel Patterns and Route Choice using Big Data Analytics*, current, PI
- *2016 Work Zone and Guardrail Safety Training Grants*, current, Co-PI
- *PFI:BIC – TIMELI: Traffic Incident Management Enabled by Large Data Innovations*, September 1, 2016–August 31, 2019, PI
- Research Projects for the Iowa DOT Office of Transportation Operations, July 15, 2013–June 30, 2017, Co-PI
- *Performance Based Operations Assessment of Adaptive Traffic Signal Control*, October 1, 2016–December 31, 2017, PI

SELECTED PUBLICATIONS

- Sharma, A., E. Smaglik, S. Kothuri, O. Smith, P. Koonce, and T. Huang. Leading Pedestrian Interval Implementation as a Marginal Costs and Benefits Problem. recommended for publication in *Transportation Research Record: Journal of the Transportation Research Board*, In-press.
- Adu-Gyamfi, Y., A. Sharma, S. Knickerbocker, N. Hawkins. Framework for Evaluating Reliability of Wide-Area Probe Data. Recommended for publication in *Transportation Research Record: Journal*

of the Transportation Research Board, In-press.

- Adu-Gyamfi, Y., S. Asare, and A. Sharma. Automated Vehicle Recognition with Deep Convolutional Neural Networks. Recommended for publication in *Transportation Research Record: Journal of the Transportation Research Board*, In-press.
- Zhao, M., C. Liu, A. Sharma. 2017. Multivariate Poisson-Lognormal Model for Analysis of Crashes on Urban Signalized Intersections. *Journal of Transportation Safety & Security*.
- Wang, S., A. Sharma, S. Knickerbocker. 2017. Analyzing and Improving the Performance of Dynamic Message Sign Reporting Work Zone Related Congestion. *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2617, pp. 71–77.
- Shefang, W., and A. Sharma. 2017. Assessing the Impact of Speed Limit Reduction near Signalized High-Speed Intersections Equipped with Advance Warning Flashers: A Case Study in Nebraska. *Journal of Transportation Engineering*, Vol. 143, No. 6.
- Verghese, V., L. Chenhui, S. Subramanian, L. Vanajakshi, A. Sharma. 2017. Development and Implementation of a Model Based Road Traffic Control Scheme. *Journal of Computing in Civil Engineering.* Vol. 31, No. 3.
- Liu, C., A. Sharma, E. Smaglik, and S. Kothuri. 2016. TraSER: A Traffic Signal Event-Based Recorder. *SoftwareX*, Vol. 5, pp. 156–162.
- Sobie, C., E. Smaglik, A. Sharma, A. Kading, S. Kothuri, and P. Koonce. 2016. Managing User Delay with a Focus on Pedestrian Operations. *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2558, pp. 20–29.
- Savolainen, P., A. Sharma, and T. J. Gates. 2016. Driver Decision-Making in the Dilemma Zone – Examining the Influences of Clearance Intervals, Enforcement Cameras and the Provision of Advance Warning through a Random Effects Probit Model. *Accident Analysis and Prevention*, Vol. 96, pp. 351–360.

PROFESSIONAL AFFILIATIONS, HONORS, AND SERVICE

- SASNet Fellow, Urban Big Data Center Glasgow, July 2016
- Outstanding Reviewer, *Journal of Transportation Engineering*, American Society of Civil Engineers, 2014
- Central States Conference ASLA 2014 Merit Award (Category-Research) for "Economic Framework for Feature Selection in Healing Garden: Evaluation at Women's Hospital – Category IV," HDR – Omaha, NE and UNL – Lincoln, NE, 2014
- Great Plains Chapter ASLA 2013 Merit Award (Category-Research) for "Economic Framework for Feature Selection in Healing Garden: Evaluation at Women's Hospital – Category IV," HDR – Omaha, NE and UNL – Lincoln, NE, 2013
- Pikarsky Award for Outstanding Ph.D. Dissertation in Science and Technology. Awarded by Council of University Transportation Centers, 2008
- Exceptional Paper Award for "Recasting Dilemma Zone Design as a Marginal Costs-Benefits Problem," Traffic Signal System Committee at TRB 86th Annual Meeting, 2007
- Co-Chair, Paper Review Board, TRB Traffic Signal Systems Committee, January 2017
- Chair, Education Subcommittee, TRB Traffic Signal Systems Committee, January 2016