



Texas A&M University Student Receives 2020 HSIS Excellence in Highway Safety Data Award

*Awards program encourages students to prepare for a career in highway safety
by using high-quality data and prioritizing safety in research.*

WASHINGTON, D.C. (Aug. 6, 2020) — Texas A&M University Ph.D. candidate Xiaoyu "Sky" Guo received first place for the 2020 HSIS Excellence in Highway Safety Data Award competition. The winning paper, "Safety Criteria for Selecting a Smart Corridor: Random Forest Approach using HSIS Data from Washington State," demonstrates how the Washington State HSIS data set was used to identify 13 key safety criteria to select a smart corridor using a Random Forest (RF) machine learning algorithm. Guo and co-authors, Yongxin Peng and Chaolun Ma, were presented with the top 2020 HSIS Award during the 2020 ITE Virtual Annual Meeting and Exhibition's Power Plenary session on Thursday, August 6.

The HSIS Excellence in Highway Safety Data Award is part of the Highway Data Analysis Excellence Awards Program. It was created to introduce future highway safety professionals to HSIS safety data, the process of applying the appropriate research methods to derive recommendations, and the practice of using that data to make decisions. The competition is jointly administered by the Federal Highway Administration (FHWA) and the Institute of Transportation Engineers (ITE).

"This year's winning paper is a fantastic illustration of how the HSIS database allows young researchers to not only explore transportation safety topics of interest to them, but also to develop recommendations that are ready for practitioners and DOT officials involved in highway safety to use on the job." said Brian Cronin, FHWA's Director for Research & Development. "The goal of the program is to inspire students to use HSIS data to investigate a topic that advances highway safety, and it is the FHWA that is truly impressed by what these young researchers have accomplished in this year's winning paper. We hope they – and all of the 2020 winners – will continue exploring important transportation safety challenges in the future."

"My author team and I are honored to receive this award," said Guo. "Conducting this research not only allowed us to explore the use of HSIS database linked together with the Intelligent Transportation Systems, but the safety criteria recommended for selecting a smart corridor in this study are generalized and ready to adapt in other states."

The competition's second-place recipient is Amin Mohammadnazar, University of Tennessee, Knoxville, for the paper "Exploring the Effects of Physical Condition and Driving Performance of Large Truck Drivers on Injury Severity of Fixed-Object Crashes Involving Large Trucks." The third-place recipient is Ziyuan Pu, University of Washington, Seattle, for the paper "Leveraging Machine Learning to Explore Non-Linear Correlation between Vertical Curve Features and Crash Frequency on Highways."



This year's HSIS Excellence in Highway Safety Data winning paper will be published in the December 2020 issue of *ITE Journal*.

Lead authors of the 2020 winner papers received a commemorative plaque as well as registration for the 2020 ITE Virtual Annual Meeting and Exhibition.

More information about the HSIS Excellence in Highway Safety Data Award is available at <https://www.hsisinfo.org/award>.

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About the Highway Safety Information System

HSIS is a safety database that contains crash, roadway inventory, and traffic volume data for a select group of States and cities. The participating agencies were selected based on the quality and quantity of data available, and their ability to merge data from various files. FHWA uses the HSIS to support the FHWA safety research program and provides input for program policy decisions. For more information, visit www.hsisinfo.org.

About the Institute of Transportation Engineers

ITE is an international membership association of transportation professionals who work to improve safety and mobility for all transportation system users and help build smart and livable communities. Through its products and services, ITE promotes professional development and career advancement for its members, supports and encourages education, identifies necessary research, develops technical resources including standards and recommended practices, develops public awareness programs, and serves as a conduit for the exchange of professional information. ITE develops the next generation of transportation professionals through its K–12 STEM program and its more than 150 student chapters.

Founded in 1930, ITE is a community of transportation professionals that includes transportation engineers and planners, consultants, educators, technologists, and researchers. Through meetings, seminars, publications, and a network of more than 15,500 members working in more than 90 countries, ITE brings together a world of ideas, people, and resources. For more information, visit www.ite.org.