

5TH ANNUAL CONFERENCE ON
**NEXT-GENERATION
TRANSPORT SYSTEMS
(NGTS 2026)**



**Theme: AI-Driven Mobility for a
Sustainable Future**

PROGRAM SCHEDULE

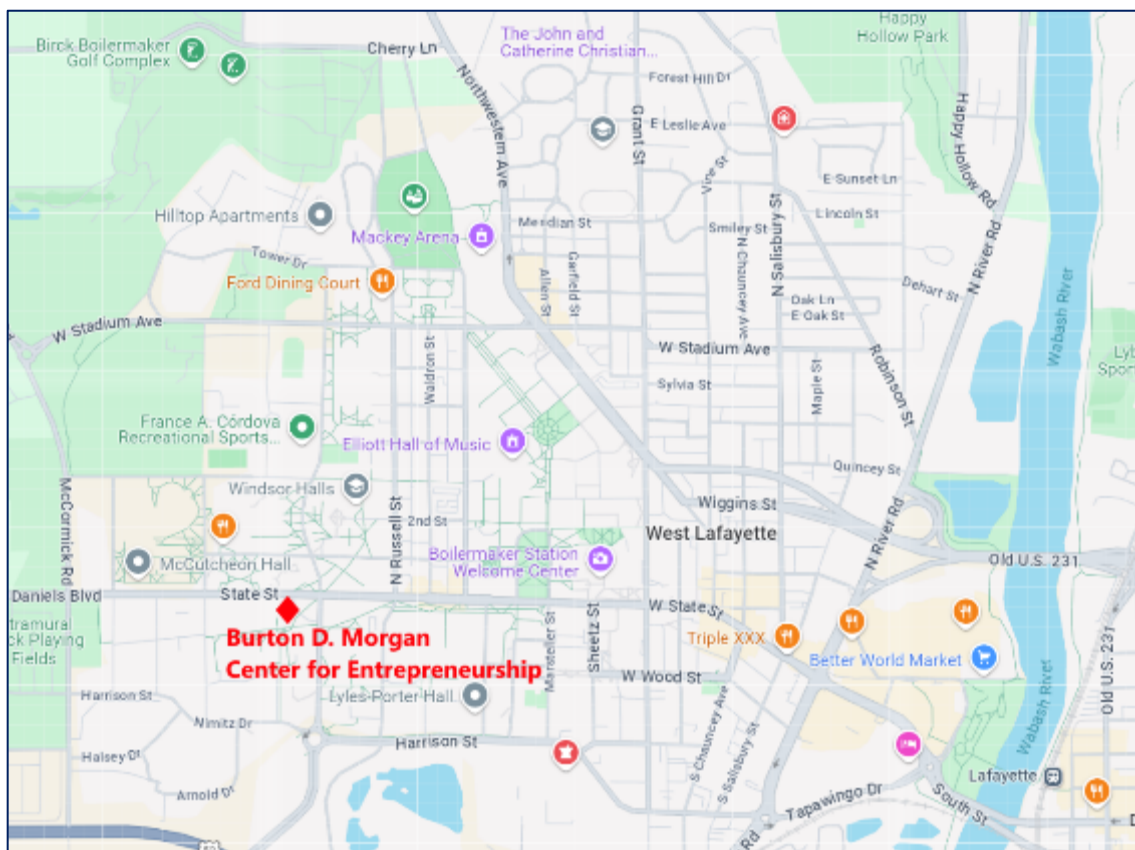
MAY 22, 2026

MRGN 121, DISCOVERY PARK, PURDUE UNIVERSITY, WEST LAFAYETTE

Location

The event will take place in a hybrid mode at Purdue University, West Lafayette Campus, and virtually via Zoom. The venue is Room MRGN 121 at the Burton D. Morgan Center for Entrepreneurship, 1201 W State St., West Lafayette, IN. Parking is available on State Street and nearby locations. Breakfast, lunch, and coffee will be served at the venue during both days.

<https://maps.app.goo.gl/cfru19Q5rKA1ySnZ6>



Zoom Link:

Obtain your Zoom Link here:

<https://purdue-edu.zoom.us/j/96601088272?pwd=ggou3xyWqXWz3a3swgLePJDkxdBaM4.1>

Schedule at a glance

Friday, May 22, 2026

- 08:00 – 08:30 Breakfast and registration
- 08:30 – 08:40 Opening Remarks
- 08:40 – 10:20 Student Presentations:
AI and Simulation in Transportation Infrastructure
- 10:20 – 10:30 Coffee Break
- 10:30 – 11:00 Keynote Lecture
- 11:00 – 12:00 Student Presentations:
Air Mobility and Infrastructure Management
- 12:00 – 12:45 Lunch
- 12:45 – 13:30 Poster Session & Networking
- 13:30 – 14:00 Keynote Lecture
- 14:00 – 15:20 Student Presentations:
AI and Statistical Applications in Safety and Mobility
- 15:20 – 15:30 Coffee Break
- 15:30 – 16:00 Keynote Lecture
- 16:00 – 17:00 Student Presentations:
Secure, Electrified and Connected Mobility
- 17:00 – 17:10 Closing Remarks and Awards

*All times are in Eastern Daylight Time (EDT), USA

Detailed Program Agenda

Friday, May 22, 2026

08:00 – 08:30 Breakfast and registration

08:30 – 08:40 Opening remarks

Mohammadhosein Pourgholamali, Doctoral student (Purdue University) and Chair of NGTS planning subcommittee

08:40 – 10:20 **Student Presentations:**

AI and Simulation in Transportation Infrastructure

Moderator: Deepak Benny

Zijian Wang, Guozhi Fu, Ghim Ping Ong;
National University of Singapore;

A deep learning-based computer vision-sensor fusion framework for wheel path trajectory and axle load monitoring

Ch. Tejaswi Ram, Krishna Prapoorna Biligiri, Sriram Sundar;
Indian Institute of Technology Tirupati;

Passive steering control strategy for heavy vehicles in an accelerated pavement testing facility with autonomous operation

Kai Zhou, Michael Lingzhi Li, Xiaobo Qu, Kai Wang;
Tsinghua University;

The power of (near)-greedy algorithms for finite-horizon bandits

Fucheng Zhang, Fang Zhang, Jiayi Liu, Qiang Meng;
National University of Singapore;

Roadside unit deployment under uncertain computing task demand: a two-stage stochastic programming approach

Peilin Zhao, Yiik Diew Wong, Feng Zhu;
Nanyang Technological University;

Platoon-centric framework for mixed traffic capacity modeling

10:20 – 10:30 Coffee Break

- 10:30 – 11:00 Keynote Address:
Dr. Fanta Camara, Research Fellow, Institute for Safe Autonomy,
University of York
Autonomous driving around people
- 11:00 – 12:00 **Student Presentations:**
Air Mobility and Infrastructure Management
Moderator: Shiwei Fu
- Eve Yu**, Jingru Yu, Xiqun Chen, Monica Menendez;
New York University Abu Dhabi;
LLM4FairRouting: a context-aware LLM-OR framework for equitable UAV delivery
- Hang Zhou**, Yuhui Zhai, Shiyu Shen, Yanfeng Ouyang, Xiaowei Shi,
Xiaopeng Li;
University of Wisconsin-Madison;
Developing fundamental diagrams for urban air mobility traffic based on physical experiments
- Yuto Nakazato**, Masao Kuwahara, Yosuke Kawasaki, Daijiro Mizutani,
Koki Satsukawa, Rie Ikushima;
Tohoku University;
Optimal intervention policy of emergency storage batteries for expressway transportation systems considering deterioration risk during lead time of replacement
- 12:00 – 12:45 Lunch

12:45 – 13:30 Poster Session + Networking

Gen Li, Brandon J. Pitts;
Purdue University;

Decision-making in safety-critical driving situations: the effects of age and environment on driver decisions and automation use preferences

Andrew Thompson, Rahal Ranasinghe, Zach Nena, Pranav Sanghi, Joseph Zhou, Armaan Sayyad, Pranay Goel, Sumant Anantha, Jiaru Zhang, Juanwu Lu, Ziran Wang, Sai Coumar;

Purdue University;

Opening the black box: a transparent diffusion-based planner for autonomous driving

Tanner Wambui Muturi, Sowmya Guda, Connor Joyce, Yaw Adu-Gyamfi;

University of Missouri;

Autonomous work zone inspection via simulation-trained VLA models

Jiancong Chen, Yansong Qu, Sikai Chen, Samuel Labi;
Purdue University;

A layered semantic–physical reinforcement learning framework for safe and energy-efficient driving of autonomous electric vehicles

Yansong Qu, Zihao Sheng, Zilin Huang, Jiancong Chen, Yuhao Luo, Tianyi Wang, Yiheng Feng, Samuel Labi, Sikai Chen;

Purdue University;

Found-RL: foundation model-enhanced reinforcement learning via asynchronous VLM feedback for autonomous driving

2026 AKS Team Presentations

Autonomous Go Kart Team, University of Colorado Boulder

Autonomous Motorsports Purdue (AMP)

Triton Racing, University of California, San Diego

Purdue IEEE Autonomous Go Kart Team

Autonomous Go Kart Team, Kennesaw State University

Intelligent Systems Club (ISC), University of Michigan Dearborn

Paradigm Engineering, Memorial University of Newfoundland, Canada

Autonomous Go Kart Team, Mesa College, San Diego

Purdue Electric Vehicle Club (EVC), Autonomous

13:30 – 14:00 Keynote Address:

Dr. Montasir Abbas, Professor, Virginia Tech

Integrated traffic operation and infrastructure monitoring with distributed optical fiber sensing

14:00 – 15:20 **Student Presentations:**

AI and Statistical Applications in Safety and Mobility

Moderator: Yilin Wang

Boyou Chen, Gerui Xu, Zifei Wang, Huizhong Guo, Ananna Ahmed, Zhaonan Sun, Zhen Hu, Kaihan Zhang, Shan Bao;
University of Michigan-Dearborn;

From narratives to probabilistic quantification: predicting and interpreting drivers' hazardous actions in crashes using large language model

Saraswathi Navaratnam-Tomayko, Alain Kornhauser;
Princeton University;

How did the chicken cross the road? By using safe pedestrian infrastructure planned with deep learning methods!

Zilin Huang, Zhengyang Wan, Zihao Sheng, Boyue Wang, Yuhao Luo, Sikai Chen;

University of Wisconsin–Madison;

Sim2Real-AD: a modular sim-to-real framework for deploying VLM-guided reinforcement learning in real-world autonomous driving

Sanaz Kazemzadehazad, Mohammad Miralinaghi, Ahmadali Hajilari, Sina Sahebi, Mohammad Shahidehpour;

Illinois Institute of Technology;

Post-COVID public transit recovery: behavioral mode shifts from pre-pandemic to post-pandemic by trip purpose in Chicago and New York

15:20 – 15:30 Coffee Break

15:30 – 16:00 Keynote Address:
Dr. Yiheng Feng, Professor, Purdue University
From ground to air: towards cooperative intelligence in transportation systems

16:00 – 17:00 **Presentations Track: Secure, Electrified and Connected Mobility**
Moderator: Zilin Huang

Kenny Chandra Wijaya, David J. Yu. Lavan T. Burra, Konstantina Gkritza;
Purdue University;
Dynamics of overstaying and cooperation in public electric vehicle charging station: governing a commons dilemma

Qiaochu Fan, Kuldeep Kavta, Shadi Sharif Azadeh, Gonçalo H. A. Correia;
TU Delft;
Understanding drivers' willingness to incorporate V2G technology into their mobility routines

Desmond Ndambi, Ndambi B Ndaya, Ako Allan Agbor;
Catholic University of America;
Cybersecurity integration in intelligent transportation systems for enhanced safety and infrastructure performance

17:00 – 17:10 Closing Remarks and Awards
Jiancong Chen, Doctoral student (Purdue University) and NGTS Conference Co-Chair

Event Sponsors

