

# TRB 2023 - AT015 Committee Call for Papers

## Freight Transportation Planning and Logistics Committee (AT015)



### CFP Title: *Freight Transportation and Logistics Analysis and Modeling*

Subject Areas: *Freight Systems; Travel Analysis Methods*

The TRB Committee *Freight Transportation Planning and Logistics [AT015]* invites you to submit papers for the upcoming TRB Annual Meeting in **2023**. Papers are invited under the *broad theme of freight transportation and logistics analysis and modeling*. Of particular interest are papers investigating: the role of **emerging technologies** such as connected and autonomous vehicles (CAV), robots, drones, platooning, and electrification to enhance freight system efficiency and sustainability; strategies to enhance system resiliency and address **climate change** challenges; advances in **freight data analytics** in terms of prescriptive, predictive and prescriptive modeling technique and tool development (e.g., artificial intelligence and machine learning); new **data-sharing** paradigms; and **cybersecurity** issues in the contexts of freight Cyber-Physical Systems (CPS) and Internet-of-Things (IoT). Papers in the areas of urban or rural, mode-oriented or intermodal, public or private, and regional or global are all welcome. Sample topics include (but are not limited to) the following:

#### Non-Traditional Areas

- Emerging technologies and their potential for reducing freight energy use, carbon footprint, and climate change impacts.
- Vehicle electrification and automation and implications for freight system efficiency and sustainability.
- Innovations in metro-scale and last-mile freight deliveries using robots, drones, non-motorized modes, and crowd shipping.
- Transportation, distribution, and storage of alternative energy (battery, hydrogen, etc.).
- COVID-19 impact on freight system reliability/resilience at local, regional, national, and international levels.
- Sharing economy, crowdsourcing impacts on freight (e.g., on-demand delivery, same-day deliveries, consolidation centers).
- Role of CPS, IoT, and related cybersecurity issues in freight systems.

#### Traditional Areas

- Network modeling of freight commodity and traffic flow.
- Shipper, carrier, receiver, consumer behavioral models, and decision support tools.
- Commercial vehicle operations, policies, and programs: e.g. weigh-in-motion, drayage, off-peak hour deliveries, and long-haul truck parking.
- Facility operations: e.g., cross-dock operations, port operations, and railyard scheduling.
- Infrastructure policies pertaining to truck operations: e.g. managed lanes, alternative fuel truck infrastructure.
- Freight transportation economics, including pricing, mechanism, and policy design for better interactions between private operators and public agencies.
- Incident management and safety in freight movements (including hazardous material), e.g. train derailments, truck accidents.
- Emergency relief and humanitarian logistics.

Please **select CFP from the drop-down** or indicate [AT015] on the Submission Review form to indicate that the paper is being submitted to our committee. Please note that authors can suggest that a paper be reviewed by a certain committee, but TRB decides how it will be reviewed. Further, we have moved away from the notion that a committee reviews a paper, and more toward the idea that papers are reviewed by subject matter experts, regardless of the committee. AT015 also gives a [Best Paper Award](#) for papers that are submitted for publication in the Transportation Research Record. The selection of the best paper is based on the **significance of the scientific contribution** and **practical application**.

Send questions to Bo Zou (AT015 Review Coordinator) at [bzou@uic.edu](mailto:bzou@uic.edu) at the University of Illinois Chicago and/or Sushant Sharma (Committee Chair) at [s-sharma@tamu.edu](mailto:s-sharma@tamu.edu) at Texas A&M Transportation Institute.