Special Session Proposal

- **Title:**
  Social Transportation: Towards Smart Mobility in Cyber-Physical-Social Spaces

- **Modality:**
  Half-day

- **Scope (no longer than 4 pages), including the following sections:**

  Recent developments in information technologies, e.g. sensing, computing and mobile Internet, have enabled substantial progress in the domain of social transportation. In distinction to works in the sociology of transportation which typically use off-line and historical data, social transportation emphasizes real-time computing and embedded applications for transportation problems with on-line and interactive big data. For example, traffic analysis and forecasting using social signals from mobile phones, wearable devices, and social media are typical examples of social transportation research. However, the development of approaches and tools to leverage rich social media and crowdsourcing data to enable intelligent transportation presents a unique set of research and engineering challenges. Social transportation is the study of how these changing research and engineering challenges lead to new explorations in intelligent transportation systems. Social transportation is the science and technology of data-driven, real-time, context-aware transportation enabled within a crowdsourcing context. Social transportation extends intelligent transportation to the cyber-physical-social system context and aims to empower traffic and transportation systems with insights and decisions derived from real-time social and physical data. Compared to traditional sensor-based transportation systems, social transportation emphasizes real-time computing and embedded applications in transportation systems with online and interactive big data at higher speed and lower cost.

The goal of this session is to provide a forum to exchange ideas, discuss solutions, and share experiences from industry, academia, and the public sector. We invite original papers covering various aspects of social transportation, including design, models, algorithms, field applications, and new paradigms.

The list of topics includes but not limited to:
- Transportation knowledge automation
ChatGPT-Powered Smart Mobility
Human mobility pattern based on social media
Impacts of social media on travel behavior and mobility
Social networks of travel behaviors
Transport governance based on online participation
Public governance for transport platform
Real experiences with designing, building, deploying and evaluating social transportation systems
Real-world applications describing cases of social transportation, and useful knowledge for solving traffic problems or improving the transportation performance
Data mining, machine learning and data analytics for social transportation systems
Crowdsourcing and corresponding issues concerning trust, security, and privacy
Social network mining and analysis for mobility
Location-based services, decision-based services, task-based services and knowledge-based services
Social data fusion

Organizers (names, affiliations, emails, and short bio):
Yuanyuan Chen (Institute of Automation, Chinese Academy of Sciences, China, yuanyuan.chen@ia.ac.cn)
Xiao Wang (Anhui University, China, xiao.wang@ahu.edu.cn)
Jiaqi Ma (University of California, Los Angeles, United States, jiaqima@ucla.edu)
Pu Wang (Central South University, China, wangpu@csu.edu.cn)

Intended audience and expected attendance of the special session:
Researchers in the field of ITS

Materials and equipment needed for the special session:
NA

Contact details of the proposers (email, postal address, etc):
Hua Zhang
Institute of Automation, Chinese Academy of Sciences
95 Zhongguancun East Road, Haidian
Beijing 100190 China
Tel (office): +86–10–82544791
E-mail: zhanghuan2020@ia.ac.cn