The 26th edition of the IEEE International Conference on Intelligent Transportation Systems (ITSC 2023) is the annual flagship conference sponsored by the IEEE Intelligent Transportation Systems Society (ITSS). This event hosts an attractive agenda of technical contributions, keynote presentations, tutorials, special sessions, and workshops on topics related to the field of Intelligent Transportation Systems (ITS). The conference aims to gather researchers and practitioners working in this field towards sharing, discussing, and opening new paths in the theory, analysis, simulation, data-based modeling, experimentation, deployment, and case studies embracing transportation and mobility at their core. In particular, ITSC 2023 builds upon its motto to invite and encourage prospective authors to present results, findings, perspectives, and developments related to the implementation and deployment of ITS applications that consider human interaction at the core of their design.

ITSC 2023 solicits proposals for half-day and full-day special sessions covering topics that are relevant to the field of intelligent transportation systems and their applications. Interested organizers are invited to submit their special session proposals in the topic areas listed in the Call for Papers of the conference (https://2023.ieee-itsc.org/call-for-paper/call-for-papers/).

The special session proposal should include title, scope, organizers, topics of interest, list of potential contributors, intended audience, expected attendance and material needed for the special session. The proposal must be submitted electronically by following the instructions available in the conference website (https://2023.ieee-itsc.org/). The deadline is February 15th, 2023.

Disclaimer 1: any special session proposal that is incomplete and/or is not submitted by following this form will not be evaluated for its inclusion in the program of the conference.

Disclaimer 2: the minimum number of contributions in a special session is 5 (half-day proposal) and 10 (full-day proposal). Special sessions that receive less than these thresholds will not be allocated as such in the in the program of the conference.

Further enquiries can be forwarded to: contact@2023.ieee-itsc.org
Title: Emerging data science for achieving zero fatality on roadways

- **Modality:**
  - Half-day (e.g., 3 hours plus breaks)
  - Full day (e.g., 6 hours plus breaks)
  - Other (provide as many details as needed to understand the proposed schedule)

We anticipate a regular session which would typically consist of 4 to 6 papers. Depending on the size of sessions this could be one session (probably 3 papers) or an extended session (2 session that follow one another with 6 papers). So it would probably fit as a half-day session.

- **Scope (no longer than 4 pages), including the following sections:**
  - **Motivation and general scope**
    There are 1.35 million fatalities worldwide each year which translates to almost 3700 death every day. Recognizing the catastrophic aftermaths of road fatalities, the United Nations General Assembly has kept an ambitious goal of halving these number by 2030. Data Science will play an important role in achieving this goal efficiently.

    A number of researchers are using different methods to enable safety conscious decisions using large datasets in order to uncover patterns and information relevant to traffic safety. This session provides a forum to showcase and discuss different methods.

  - **Relevance to the ITS community**
    ITS community has been a strong proponent of aiming for Zero fatality roadways. The data, technology and computation revolution has changed the paradigm where significant improvement in safety required significant amount of investments. The new sources of sensing, communication and data processing have enabled us to collect huge amount of data at a fraction of the cost a decade ago.

    In this new paradigm there is also a need to develop algorithms that can ingest big, noisy and often heterogenous data sources to drive planning, operations and investment decisions for infrastructures, vehicles and drivers. This session will provide a platform to present these advances at a common place. This will result in not only advancement of individual ideas but also cross-pollination of ideas. Big
data analytics is an important topic for ITS. It is also one of the conference themes. Several of the papers will be targeted to naturalistic driving study data and several will be focused to data analytics.

Topics of interest for the special session
- Data science for improving road safety
- Big data analytics
- Naturalistic driving analysis
- Crash or near-miss analytics using crowd sourced data
- Alternative safety performance measures
- Human factors

Organizers (names, affiliations, emails, and short bio):

Shauna Hallmark, Director and Professor, Iowa State University (shallmar@iastate.edu). Hallmark has extensive experience in use of large naturalistic datasets to assess the relationship between driving behavior and crash risk.

Anuj Sharma, Pitts-Des Moines Inc. Professor of Civil Engineering, Iowa State University, has spearheaded efforts of driving long-term planning and short term operations decision using big data analytics.

Jing Dong (IEEE senior member), associate professor, Iowa State University, has applied data science in traffic operations and safety analysis.

Intended audience and expected attendance of the special session:
Researchers, transportation agencies, data scientists

Materials and equipment needed for the special session:
Nothing special is required, just a computer and projector

Contact details of the proposers (email, postal address, etc.):
Shauna Hallmark (shallmar@iastate.edu), (515) 294-5249
Anuj Sharma (anujs@istate.edu)
Jing Dong (jingdong@iastate.edu)