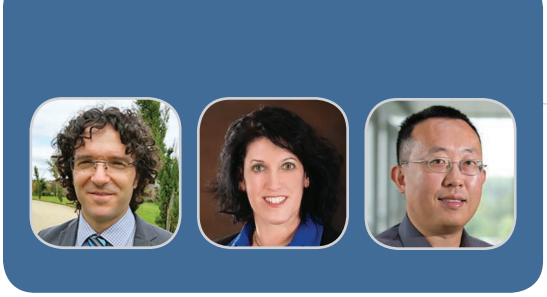

Javier J. Sánchez-Medina,
Prof. Cristina Olaverri-Monreal,
Prof. Renran Tian

IEEE Intelligent Transportation Systems Society's Column

IEEE ITSS's Vice-President for Technical Activities Letter

Dear readers,

In this fifth issue of this column on the Technical Activities of the IEEE Intelligent Transportation System Society (ITSS) we have a few news to share with our community. As usual we are running an internal election to appoint the best performing TC of 2019, to give them an acknowledgment plaque during ITSC2019 Gala Dinner in Auckland, New Zealand. Last year's acknowledgment was given to the TC on Human Factors and ITS, for their great dedication and contributions. Please, read more about them below in this column!

Another very exciting news we are conveying is that we have prepared a web platform for sharing our community's knowledge on Data Science applied to ITS. We call this project "One Stop ITS Data Archive." By the title you can imagine what it will be about. Most of contents of that service will be freely open to the general public, but a part of it will be just visible to the IEEE ITSS members. This is a call for volunteers in the ITS community. We will definitely need editors to participate in this project, to create contents, share code snippets, participate in its fora, etc.

I know this may be interesting for many Data Scientists in the area of ITS. If you want to be part of this, please, contact me at your earliest convenience.

Finally, we have recently renewed and refurbished the Technical Activities structure http://ta.itss-ieee.org/. There are some contents that need to be updated yet, but current Technical Committee structure is right now as follows:

- Artificial Transportation Systems and Simulation
- Cooperative and Connected Vehicles
- Human Factors in ITS
- Planning and Control of Transportation and Logistic Networks
- Naturalistic Driving Data Analytics
- Railroad Systems and Applications
- Self Driving Automobiles
- Smart Mobility and Transportation 5.0
- Traffic and Travel Management

Besides that we have a Special Interest Group on "Intelligence and Security Information for Transportation Systems."

In the next section we share the procedures to create and chair a Technical Committee or Special Interest Group. We are totally open to the community participation!

Thanks for your attention, hoping for us to meet at some of our conferences and events, stay safe!

Javier J. Sánchez-Medina
IEEE ITSS Vice-president for Technical Activities

ITSS Technical Activities Spotlight: Getting to Know the Technical Committee on: Human Factors in Intelligent Transportation Systems (IEEE-ITSS TAC HFITS)

Intelligent Vehicles (IV) technologies have experienced a great improvement in the last couple of decades. Analyzing the impact of such technologies on traffic awareness for the driver and driver's behavior towards improving driving performance and reducing road accidents demands proper tools and approaches.

While the feasibility of incorporating new technology-driven functionality to vehicles has played a central role in the automotive design, not always safety issues related to interaction with the new in-vehicle systems have been taken into consideration. Additionally, other aspects are equally important and need to be accounted for, such as the impact technologies that support specific driving functions play on the primary task

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We have prepared a web platform for sharing our community's knowledge on Data Science applied to ITS.

of driving the vehicle, as well as their impact on overall performance of transportation systems. Besides current industrial achievements that feature today's vehicles with a number of important driving assistance systems, the perspective of autonomous driving vehicles populating urban settings pose issues that are even more challenging. A system that guarantees efficiency of use, comfort and user satisfaction can contribute to a more conscious driving behavior that would directly result from the adoption of IV technologies.

Connected vehicles will be able to compensate for a driver's weaknesses, sensing the surroundings and displaying information tailored to their preferences. In view of the increased awareness capabilities provided by the cooperative messages that rely on vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) (V2X, collectively) unique HMI systems need to be implemented as communication-based Human Machine Interfaces entail challenges that differ from non-connected systems. Particularly in the case of conveying information to the driver in the form of dynamic warnings based on V2X communication technologies representing different levels of danger, it is crucial to investigate driver distraction levels, as well as the modality and dimension of the visual warnings and their appropriate in-vehicle location.

The IEEE-ITSS committee on Human Factors in Intelligent Transportation Systems was established in 2014. It aims to foster activities on issues related to human factors in the design and evaluation of intelligent vehicles technologies, in a wide spectrum of applications and in different dimensions. It is also expected to build upon a proper environment to disseminate knowledge and motivate interactions among the technical and scientific communities, practitioners and students, allowing state-of-the-art concepts and advances to be further developed and enhanced.

Technical areas of focus include: Intelligent user interfaces, Autonomous driving, Human-machine interaction, Human-in-the-loop simulation, Cognitive aspects of driving, Human behavior and capability, Ergonomics of traveler information systems, Behavior Modeling, Simulation and Analysis, Tools and approaches to analyze human factors, Data analytics and visualization in human factor analysis, Anthropometric layout of vehicular technical systems, Methodologies to optimize overall system performance, Mixed Reality, Cross-Cultural Design, Augmented Cognition and Modeling, User Experience and Usability, Computer Aided Ergonomics Analysis, Effects of in-vehicle systems on driver performance, Tools and methodologies for usability assessment, Input/Output modalities in system ergonomic design, Learning, Anticipation, Adaption balance, Methodologies for driver training.

The IEEE-ITSS TC on Human Factors in ITS is chaired by Prof. Dr. Cristina Olaverri-Monreal (Johannes Kepler University, Linz, Austria) and co-chaired by Prof. Dr. Renran Tian (Purdue University, Indiana, USA).

The TAC on HF in ITS received the award to the best committee in 2018 for the contribution to the field. A book compiling a selection of the publication topics in the workshop on Human Factors in Intelligent Vehicles will be published in 2019. Additional activities include:

Consolidate the Special Sessions within IEEE ITS Conferences, consolidate the successful series of the Workshop on Human Factors in Intelligent Vehicles, within IEEE IV Conferences, activities related to ITSS Publications, promote students' activities at IEEE ITS Society's Conferences, related to topics of interest to the HFITS Technical Activities Committee, motivate membership for IEEE ITS Society and promote activities to foster networking between HFITS-TC's members.

Please check the following website for details of the HFITS Technical Committee, https://ta.itss-ieee.org/human-factors-in-its/.

Prof. Cristina Olaverri-Monreal (chair)
Prof. Renran Tian (co-chair)

Technical Committees and Special Interest Groups Creation Procedures: Call for Volunteers

In the IEEE Intelligent Transportation Systems Society (ITSS) we organize some very interesting conferences every year. One of the biggest is the IEEE International Conference on Intelligent Transportation Systems, which 21th edition will be held on Hawaii, on Maui island next year. In this conference we are trying a slightly different approach regarding the technical program development. We are involving the ITSS Technical Committees and Special Interest Groups much more than before in the reviewing and program organization tasks. For example, they have a much more preeminent role in the reviewing process through the incorporation of their TC members as *associate editors,* and intermediate layer where they will handle a few papers each asking for review and making acceptance/rejection recommendations. We want to have a fine grain technical quality control by that.

If that is interesting to you, please, get in touch with any of the ITSS Technical Committees (http://ta.itss

-ieee.org/) and let the chair know your availability to join in.

New Technical Committee/Special Interest Group Creation Procedure

The creation (and removal) procedure is described as follows. When there is an uncovered topic within the scope of the ITS society, if a volunteer (ITSS member) proposes organizing a Technical Committee, he or she is requested to submit a proposal, including the scope and the activity plan. If the proposal is approved, then, a Special Interest Group (SIG) is created about it and the proponent designated SIG Chair.

Every year Technical Committees (TCs) are requested to develop at least a minimum of two technical activities yearly, that typically are Workshops, Special Sessions, Competitions, Hackathons, etc. They have to submit a yearly report indicating what is organizing each TC. It is mandatory for TCs and recommended for SIGs. If a SIG proves consistently they can withstand a high level of activity for a period of time, they can be upgraded to TC.

Each Technical Committee has also to participate every year in the ITSS Technical Committee Board meeting, normally organized during every year's IEEE ITSC conference.

When there is a high interest strategic topic but no associated proposal, a chair election is run, open to all ITSS members.

Whenever a TC cannot withstand with a minimum activity level, it is downgraded to SIG, or eliminated, depending on the interest of its volunteers and the relevance or obsolescence of the topic.

If you work in Intelligent Transportation Systems and you see there is a technical gap we have in the space covered by our technical committees structure, and you are an ITSS member and you would like to lead that new Technical Committee, you are kindly invited to submit your proposal for the creation of that new TC.

Call for New TC Proposals

Another call we need to launch is about the creation of new Technical Committees. If you work in Intelligent Transportation Systems and you see there is a technical gap we have in the space covered by our technical committees structure, and you are an ITSS member and you would like to lead that new Technical Committee, you are kindly invited to submit your proposal for the creation of that new TC. Each proposal should include:

1) Title of the Technical Committee.
2) Description of the scope and topics that are pretended to be covered with this new TC.
3) Work plan for, at least, a year ahead, with a minimum of two activities per year.
4) A list of at least 8 potential committee members.
5) Your commitment to attending our yearly ITSS Technical Activities Board (TAB) meeting, which are typically organized around the ITSS ITSC conference series. You could send a representative from your committee list.
6) A brief Bio highlighting your accomplishments regarding the Technical Committee topics.

Please, send all of that in a single document to: javier.sanchez.medina@ieee.org.

You could also suggest a new technical committee to be created without running to chair it. All constructive suggestions are welcome! Thank you!

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GUEST EDITORIAL *(continued from page 109)*

validation, and (ii) training the train drivers in realistic conditions.

The fourth paper by Haddad et al. is titled "*Transportation Service Redundancy from a Spatio-temporal Perspective*." This paper attempted to provide a new approach for taxi supply-demand mismatch modeling using the concept of service redundancy. In this paper, the citywide taxi service redundancy is modelled as an explicit spatio-temporal phenomenon. The authors also proposed a collaborative scheme for spatio-temporal taxi service redundancy calculation, collection, and control at three different levels: micro level (service redundancy at the immediate surroundings of individual taxis), meso level (redundancy at taxi operators' level), and macro level (service redundancy at a city level). The performance of the proposed model is explored through fictive simulation experiments.

The guest editors would like to take this opportunity to thank all the authors for the efforts they put in the preparation of their manuscripts and for their valuable contributions. We wish to express our deepest gratitude to the referees, who provided very useful and constructive feedback to the authors. Our sincere thanks go to the Editor-in-Chief for his kind help and support.

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