In This Issue

Society News and Announcements

Message from the Editor ................................................................. 2
2015 ITSS Board of Governors Election Results .............................. 3
Join the IEEE ITS Society ............................................................. 6
2015 IEEE ITS Award Announcement ........................................... 8
Report—DLS Event organized by the IEEE ITSS Spanish Chapter .... 11
Report — IEEE ITSC 2015 .............................................................. 14
New Website for the IEEE ITS Magazine Submissions Announcement .... 30
ITS Podcast New Episodes and Information .................................... 31

Conferences and Call for Papers

IEEE IV2016 - CFP ........................................................................... 33
IEEE ITSC2016 - CFP .................................................................... 35
IEEE Transactions on Intelligent Vehicles — CFP ......................... 36
S. Issue on “Autonomous Cooperative Driving” — CFP IEEE Intelligent Transportation Systems Magazine. .............................. 37
S. Issue on “High Performance Computing in Simulation and Optimization of Dynamic Transportation Networks” — CFP IEEE ITS Mag. .......................... 38
S. Session on Intelligent Cooperative Driving, and Autonomous Connected Vehicles (ICD & ACV 2016) — CFP. .............................. 39
UMITS2016—CFP .......................................................................... 42
19th EURO Working Group on Transportation Meeting CFP. .......... 43
Conference Calendar ...................................................................... 44
Forthcoming papers at Transactions on ITS ................................. 47
Forthcoming papers at ITS Magazine ........................................... 49
Most popular papers/episode at T-ITS, ITS Mag. and ITS Podcast .... 50
Officers and Committee Chairs ..................................................... 51

©2016 by The Institute of Electrical and Electronics Engineers, Inc. Personal use of this material is permitted. Permission from IEEE must be obtained for all other uses, including reprinting/republishing this material for advertising or promotional purposes, creating new collective works for resale or redistribution to servers or lists, or reuse of any copyrighted component of this work in other works.
# Web Archive and Electronic Newsletter Subscription

The IEEE ITS Society Newsletter is published quarterly the first Wednesday of January, April, July, and October, reaching more than 15000 subscribers. You can download any issue for free, here: http://its.ieee.org

SUBSCRIBE TO THIS MAIL LIST: https://listserv.ieee.org/cgi-bin/wa?SUBED1=itssnews&A=1

You can also UNSUBSCRIBE here: mailto:ITSSNEWS-SIGNOFF-REQUEST@listserv.ieee.org.

---

# Editorial Board

**Editor-in-Chief**

Javier Sanchez-Medina  
----------javier.sanchez.medina@ieee.org

---

**Associate Editors**

**Conferences, Workshops, and Journals**

Haluk Eren......................................heren@firat.edu.tr

---

Follow our IEEE ITS Society’s Activities:

Facebook Twitter Linked-in Youtube

---

# SEND YOUR CONTRIBUTIONS

Information for Contributors

Announcements, feature articles, book and meetings reviews, opinions, letters to the editor, professional activities, Abstracts of reports, and other material of interest to the ITS community are solicited. Please submit electronic material for consideration in any of the following formats: Microsoft Word, OpenOffice, plain ASCII, rich text format (rtf), or portable document format (pdf) to the Editor-in-Chief at javier.sanchez.medina@ieee.org. You can also use this Google form: [http://goo.gl/forms/xpgl8WLt9F](http://goo.gl/forms/xpgl8WLt9F).

---

# SOCIETY NEWS

## From the Editor

Javier Sanchez-Medina

Dear readers, we have the first issue of 2016 fully loaded with interesting information. In this issue we have a detailed final report about the recent ITSC2015 conference. If you attended maybe you can spot yourself in it!

We are looking forward with excitement to the publication of the first issue of the new Transactions on Intelligent Vehicles. We will have the first issue with overview invited papers and surveys on the latest advances in Intelligent Vehicles. We also have a number of other CFPs including IV2016 and ITSC2016, our two flagship conferences.

We are also publishing some interesting information about joining our society. Membership has a lot of benefits plus the pride of helping out the ITS Society serving our community and colleagues. Think of it!

We also have a few announcements about our publications. As you can see even Winter cannot prevent the ITS Society from being on fire these days! Please, send us your feedback!
Each year, the members of the Society elect five members to serve a three year term on the Board of Governors (BoG), the Society’s governing body. The BoG consists of the fifteen elected members (five each year for a three-year term) and the officers of the Society.

The candidates for election are nominated by the Society’s Nominations Committee. The chair of the Committee is designated in the Society’s bylaws. This year, the chair was Christoph Still-er who was president in 2012-2013. IEEE has announced the results of the election for the Board of Governors. The following five candidates have been elected to a three year term beginning January 1, 2016.

**ROBERT L. BERTINI**
California Polytechnic State University San Luis Obispo, USA

Robert L. Bertini is associate professor of Civil and Environmental Engineering at California Polytechnic State University San Luis Obispo. He chairs the Operations Section of the Transportation Research Board, and is the chair emeritus of the TRB Committee on Traffic Flow Theory and Characteristics where he oversaw the publication of nearly 200 papers (1000 submitted with more than 4000 reviews). He was Director of the ITS Joint Program Office and Deputy Administrator of RITA at the U.S. DOT, member of ITS America Board of Directors, and Professor at Portland State University where he founded the ITS Lab, Portal data archive and OTREC (university transportation center). Research interests: sustainable transportation solutions, traffic flow theory informed by empirical and experimental measurements, intelligent transportation systems (ITS), multimodal transportation ‘big data’ for improving performance measurement, planning and operations, and proactive traffic management and operations. Has participated in many IEEE ITS and IV conferences as Associate Editor/International Program Committee member (since 2001), reviewer, author (with students) and keynote speaker.

Goals for ITS Society: build on/respect our heritage/past achievements; listen to the membership and encourage further multi-disciplinary collaboration within IEEE and across the ITS/transportation community; strengthen ties between academia, industry and government, especially U.S. DOT; incorporate sustainability into ITS research; help produce premier research results that can aid in deployment; heighten the mentoring and encouragement of young researchers. Ph.D., University of California at Berkeley; M.S. San Jose State University; B.S., California Polytechnic State University San Luis Obispo (cum laude); Recipient of NSF CAREER Award.

**BART DE SCHUTTER**,
Deft University of Technonology, The Netherlands.

Bart De Schutter (IEEE member since 2008, senior member since 2010) is full professor at the Delft Center for Systems and Control (DCSC) of Delft University of Technology in Delft, The Netherlands. Bart De Schutter received the doctoral degree in 1996, from
K.U. Leuven, Belgium. His current research interests include freeway and urban traffic control, control of large-scale transportation networks, intelligent vehicles, control of hybrid systems, multi-agent systems, and optimization.

Bart De Schutter is actively contributing to the Intelligent Transportation Systems Society (ITSS) in various ways. He is associate editor of the IEEE Transactions on Intelligent Transportation Systems since 2004. He was member of the Board of Governors of the ITSS in 2008-2010 and 2013-2015, and vice-chair of the IFAC Technical Committee on Transportation Systems (2006-2008, 2010-2014). Currently, he is chair of the IFAC Technical Committee on Transportation Systems. Bart De Schutter has regularly served as IPC member for IEEE Conference on Intelligent Transportation Systems (ITSC) and for the IEEE Intelligent Vehicles Symposium (IV). He was program co-chair for ITSC 2005 and ITSC 2013, and program chair of IV 2008.

If elected to the Board of Governors, Bart De Schutter will continue to further expand the scope of the ITSS and of ITSC to other modes of transportation than road traffic as well as to multimodal transportation. In addition, he will continue to strengthen the connections between the ITSS and other professional organizations active in the field of traffic management and control, in particular the IFAC Technical Committee on Transportation Systems.

NOBUYUKI OZAKI,
Toshiba Corporation, Japan

Nobuyuki Ozaki graduated from the University of Tokyo in 1983 and has been working for Toshiba since then. He got his doctoral degree from University of Tokyo in 1996 in computer vision. He is Senior Fellow of Railway & Automotive Systems Division at Social Infrastructure Systems Company, Toshiba Corporation. He has the responsibility for promoting technical activities and future direction in terms of ITS related business. His strength lies on bridging the both sides: research oriented approach and business oriented approach, by conducting application oriented research activities.

He is also serving actively for ITS JAPAN, a NPO that functions as the window between public and private sectors. He has two main roles in this organization: chairman of the international committee holding conference for ITS World Congress every year, chairman of the project oriented committee titled gITS Committee for Shaping New Mobility & Energy Services. He served as the leader of the program committee for 2013 ITS World Congress held in Tokyo. He is also working as International program committee for ITS World Congresses. These activities help him to establish strong network with ITS Societies in Asia-Pacific region.

Dr. Ozaki is an ITSS BOG member from 2013-2015. After serving for the first time by attending BOG meetings, he intends to contribute to the society in two ways: bridge between industry and academia and encourage emerging economies in Asia-Pacific region to become active members. He is appointed as the general co-chair for the coming ITS2017 which will be held at Yokohama, Japan.

JAVIER SANCHEZ-MEDINA,
University of Las Palmas de Gran Canaria, Spain

Javier Sanchez-Medina is currently Associate Professor in the Com-
puter Science department at the University of Las Palmas de Gran Canaria, Spain. His research interests include mainly the application of Evolutionary Computation and Parallel Computing to Intelligent Transportation Systems, in particular to Traffic Simulation, Optimization and Management. He has also worked in Computer Vision applied to ITS. He has widely published his research with more than 25 international conference articles and more than 15 international journal articles.

Prof. Sanchez-Medina is a very active volunteer at the IEEE ITS Society. He has helped out organizing a Workshop at ITSC2010, co-organizing a Special Session at ITSC2011, being Publications Chair for IEEE FISTS2011, Registration Chair for IEEE ITSC2012, Workshops and Tutorials Chair for IEEE ITSC 2013, Panels Chair at IEEE VTC2013-Fall, Program co-Chair at IEEE ITSC2014, Program co-Chair at IEEE ITSC2016 and Program Chair for ITSC2018 in Istanbul. He also had the opportunity of being General Chair at IEEE ITSC2015 where with the help of many people they raised the bar of the ITSC series to a new level. Currently he also serves as EiC of the ITS Podcast and the ITS Newsletter, and Vice-president of the ITSS’s Spanish chapter.

His goals as BoG member will be to foster innovation and excellence in all our activities, in particular, those where he has been involved in the past, like the ITS Podcast and the ITS Newsletter, with the same as usual level of passion and commitment.

LIUQING YANG,
Colorado State University, USA

Liuqing Yang is a Professor at the Department of Electrical & Computer Engineering, Colorado State University. She received her B.Eng. degree in electrical power engineering from Huazhong University of Science and Technology, China, in 1994, and her M.S. and Ph.D. degrees in electrical and computer engineering from the University of Minnesota in 2002 and 2004, respectively.

Her current research interests are in areas of vehicular communications, networks, systems, standards, communications-enabled road and vehicle safety, future telematics applications, and ITS-based services. In particular, she focuses on the enhancement of transportation technologies using communications technologies. Dr. Yang is a Fellow of the Institute of Electrical and Electronics Engineers, the CPSS Department Editor for IEEE Intelligent Systems, Associate Editor for IEEE Transactions on Intelligent Transportation Systems and the Vice Chair of IEEE Intelligent Transportation Systems Society Shandong Chapter.

Dr. Yang has been actively involved in the organization of many IEEE international conferences including IEEE Conference on Intelligent Transportation Systems and IEEE Vehicular Technology Conference. She has also served on the Editorial Board for a number of journals, including IEEE Transactions on Intelligent Transportation Systems and IEEE Transactions on Vehicular Technology. She will be committed to strengthening the ITS society, such as to further increase the quality, scope, and impact of the International Conference on ITS, to promote and develop standards for vehicular networking, including vehicle-to-vehicle and vehicle-to-infrastructure communications, to prompt the technological development related to the integration of vehicular technologies with communications technologies, and to extend and establish collaborations with related organizations.
The IEEE Intelligent Transportation Systems Society (ITSS) is waiting for you.

Join Now

Explore theoretical, experimental, and operational aspects of Electrical Engineering and Information Technologies as applied to ITS, Intelligent Vehicles, and Vehicle-Infrastructure Cooperation. Access the IEEE Transactions on ITS, the leading publication in intelligent transportation, and the up-and-coming ITS Magazine. Follow the latest trends in autonomous and cooperative driving, driving assistance systems, transportation communications, and advanced transportation sensing and analysis.

http://its.ieee.org/

Comprised of professionals who share your technical interests, joining (ITSS) allows you to deepen ties to your technical community and take advantage of specialized opportunities. Join today and:

- Stay current with developments in your field;
- Connect with leading experts and colleagues;
- Attend specialized conferences, share knowledge and network with your peers
- Receive discounts on exclusive publications; and most importantly
- Grow your career

Join NOW for just US$35.00 (US$18.00 for students)

The ITS Society is one of youngest, but a rapidly growing, IEEE society. Members of ITSS receive the Society's IEEE Intelligent Transportation System Magazine quarterly in print and through IEEE Xplore.
Join the IEEE ITS Society

Other Society benefits include:

- FREE electronic access, through IEEE Xplore, to the IEEE Transactions on Intelligent Transportation Systems;
- Networking opportunities with technical experts around the world:
  - ITSS sponsors over 10 Conferences, including the premier flagship conferences: the Intelligent Transportation System Conference (ITSC) and the Intelligent Vehicles Symposium (IV);
  - ITSS has 15 Technical Committees, where you can participate together with technical experts;
  - ITSS has new chapters forming around the world, where you can participate in local activities;
- Professional Recognition through prestigious ITSS Awards:
  - IEEE ITS Outstanding Research Award;
  - IEEE ITS Outstanding Application Award;
  - IEEE ITS Institutional Lead Award;
  - IEEE ITSS Best Ph.D. Dissertation Award;
- Discounts on print subscriptions, co-sponsored journals and Society conferences and workshops.

Regards,

Brendan Morris
Vice-President
IEEE ITSS Member Activities
IEEE ITS Award Announcement

The prestigious IEEE ITS Outstanding Research Award, IEEE ITS Outstanding Application Award, and IEEE ITS Lead Award are conferred annually to honor ITS researchers, practitioners, and research/development teams who have made significant contributions to research in ITS related fields (for ITS Research Award), developed and deployed successful ITS systems or implementations (for ITS Application Award), and demonstrated leadership in promoting ITS technologies (for ITS Institutional Lead Award). These awards have been established to recognize, promote, and publicize major research contributions, application innovations with real-world impact, and ITS institutional leadership.

IEEE ITS Outstanding Research
LISA: Laboratory for Intelligent and Safe Automobiles
University of California, San Diego
Director: Professor Mohan M. Trivedi

Research Area and Emphasis:
Multidisciplinary approach to make automobiles safer and intelligent through analysis of drivers, occupants, vehicle dynamics, and vehicle surroundings

Contributions:
- Developed Looking-In Looking Out (LILO) framework for driver assistance by considering driver and occupants
- Leader in academic and professional communities
- Recognized as the “most productive, most cited, and influential” research group in 2010 T-ITS bibliographic study
- Two IEEE ITSS Best Dissertation Award winners and two ITS America Student Paper Awards
- Numerous best paper awards in ITS, computer vision, and visual surveillance conferences
IEEE ITS Institutional Lead
Ümit Özgüner, Control & Intelligent Transportation Research (CITR) Lab in ECE and the Center for Automotive Research (CAR)
The Ohio State University

Research Area and Emphasis:
Autonomous and collaborative vehicles and intelligent transportation systems.

Contributions:
- Demonstrating real autonomous vehicles and their collaborative behavior
- Sensor sharing and fusion to understand motion of multiple vehicles
- Modeling decision making processes for driver behavior as a Cyber-Physical System
- Optimal speed profile selection for individual vehicles on highways

IEEE ITS Outstanding Application
ACP-based Qingdao Parallel Urban Traffic Management and Control System

Team Lead: Fei-Yue Wang, The State Key Lab of Management and Control for Complex Systems at CASIA

Consortium: QAII, Qingdao Public Safety Bureau, CASIA, HiSense, NUDT, and Tsinghua University.

Research Area and Emphasis:
Intelligent control, social computing, parallel systems, knowledge automation

Contributions:
- Constructing specific artificial transportation system for Qingdao (ATS-Qingdao)
- Optimization and evaluation method based on parallel transportation system
- ITS clouds based on mobile agents and cloud computing
- Agent-based traffic control system
- Significantly improved Qingdao Transportation Operations, accurately disseminating real-time road traffic information, personalized traffic information service.
The prestigious IEEE ITSS Best Ph.D. Dissertation Award is given annually for the best dissertations in any ITS area that is innovative and relevant to practice. This award was established to encourage doctoral research that combines theory and practice, makes in-depth technical contributions, or is interdisciplinary in nature, having the potential to contribute to the ITSS and broaden the ITS topic areas from either the methodological or application perspectives.

**First Prize:** Mohsen Ramezani Ghalenoei, École Polytechnique Fédérale de Lausanne

Advisor: Nikolas Geroliminis
Dissertation Title: Traffic Modeling Estimation and Control for Large-Scale Congested Urban Networks

Contributions:
- Development of a hierarchical large-scale perimeter traffic control for congested urban networks
- Modeling the dynamics of heterogeneity with a parsimonious traffic flow model
- Proposal of a macroscopic traffic model of mixed network of freeways and arterials
- Development a novel method based on probe data for route travel time distribution estimation
- Development a data-driven method for traffic shockwave estimation in congested urban arterials

Current Position: Lecturer at Monash University

**Second Prize:** Meng Wang, Delft University of Technology

Advisors: Serge Hoogendoorn, Bart van Arem and Winnie Daamen
Dissertation Title: Generic Model Predictive Control Framework for Advanced Driver Assistance Systems

Contributions:
- Flexible model predictive control framework for autonomous and cooperative vehicle systems
- Full speed range, multiple objective ACC controller
- Cooperative ACC controller based on consensus in decision-making
- Systematic impact assessment of ACC and CACC on dynamic traffic flow characteristics

Current Position: Assistant Professor at TU Delft

**Third Prize:** Nanxiang Li, University of Texas, Dallas

Advisor: Carlos Busso
Dissertation Title: Modeling of Driver Behavior in Real World Scenarios Using Multiple Noninvasive Sensors

Contributions:
- Use of various in-vehicle sensor streams to understand driver behavior
- Creation of new interactive experiences for the driver and passengers

Current Position: Research Scientist at Honda Research Institute
The Spanish Chapter of the IEEE Intelligent Transportation Systems Society has organized a public event including presentations and ITS awards delivery in the framework of the Distinguished Lecturer Speakers (DLS) program of IEEE. The event took place on November 26th, at the Technical School of the University of Alcalá (Alcalá de Henares, Spain). The opening was done by Miguel Ángel Sotelo, President of the Spanish Chapter of the ITSS, who provided an overview of the ITSS, including highlights about its publications, flagship conferences, student activities, and membership benefits. After the opening, Raúl Rojas, Professor at TU Berlin, delivered a keynote talk as invited Distinguished Speaker of the ITSS.

Professor Raúl Rojas has been a full professor of Artificial Intelligence and Robotics at Freie Universität Berlin since 1997. He received his PhD and venia legendi (habilitation) at this university. He studied mathematics and physics, as well as economics, in Mexico City. After the habilitation, he was appointed visiting professor in Vienna and later professor of Artificial Intelligence at Martin-Luther-University Halle (1994-1997). Raúl Rojas’ initial research was dedicated to the design and the construction of Prolog computers for Artificial Intelligence at GMD-FIRST. Today, he works on a broad field of pattern recognition topics with special focus on neural networks and developing robots for various applications. With the FU-Fighters he won the world championship at RoboCup 2004 and 2005. From 2006 on, he and his team have been developing autonomous vehicles, which were certified for city traffic in 2011. For his research on computer vision, Raul Rojas received the Technology Transfer Award from the Technologiestiftung Berlin (Foundation for Innovation and Technology). He was appointed as corresponding member of the Mexican Academy of Sciences in 2011, and was "Professor of the Year" in Germany in 2014.

The title of Professor Rojas’ talk was The Car of the Future. In this talk he presented the control architecture of the autonomous car "MadeInGermany". The vehicle integrates sensor measurements from Lidar, radar, video cameras and a GPS navigation unit. The control architecture consists of a hierarchy of microprocessors feeding preprocessed data to the main computer. This unit computes a long range navigation plan and a short range trajectory. A cost function regulates the decision process. Recently, Prof. Rojas team has also started integrating communication in a fleet of autonomous cars. He showed exhaustive video results illustrating countless experiments (http://www.autonomos.inf.fu-berlin.de/). "MadeInGermany" has been licensed for road and street driving in Germany. It has been shown driving autonomously in Germany, the USA, and Mexico. As an outstanding merit in the field of Intelligent Vehicles, Professor Rojas has recently made the World’s record in Autonomous Navigation after the experiment that has taken his "MadeInGermany" vehicle on an autonomous run of 2.400 Km between Sonora (at the border between the US and Mexico) and Mexico DF, a remarkable milestone that grants Professor Rojas a distinguished place among ITS researchers worldwide.
Immediately after the keynote by Prof. Rojas, we started the Spanish Chapter ITSS Awards Ceremony. The Spanish Chapter of the ITSS has organized two different awards in the field of Intelligent Transportation Systems. On the one hand, three awards were given to the Best PhD Theses in the field of ITS developed in Spanish Universities and Research Centers in the past three years. The Best PhD Thesis Award received a certificate and a 600€ check. The second and third awardees received a certificate. Similarly, another three awards were given to the Best Master Theses in ITS developed in Spain also in the past three years. The Best Master Thesis Award received a certificate and a 300€ check, while the second and third awardees received a certificate. All awards were sponsored by the University of Alcalá.

The names of the awardees are provided below together with their Theses’ titles and supervisors:

<table>
<thead>
<tr>
<th>Best PhD Thesis Award – First Prize</th>
<th>David Vázquez Bermúdez. Computer Vision Center. Barcelona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title: Domain Adaptation of Virtual and Real Worlds for Pedestrian Detection</td>
<td>Supervisor: Antonio López Peña</td>
</tr>
<tr>
<td>Title: Road signs detection and recognition using digital image processing techniques and artificial intelligence</td>
<td>Supervisor: Saturnino Maldonado Bascón</td>
</tr>
<tr>
<td>Title: Data Fusion Architecture for Intelligent Vehicles</td>
<td>Supervisors: Arturo de la Escalera and José María Armingol</td>
</tr>
<tr>
<td>Best Master Thesis Award – First Prize</td>
<td>Mario Passani Montero. University of Alcalá. Alcalá de Henares</td>
</tr>
<tr>
<td>Title: Conditional Random Fields Applied to Image Understanding</td>
<td>Supervisor: Luis Miguel Bergasa</td>
</tr>
<tr>
<td>Best Master Thesis Award – Second Prize</td>
<td>Eduardo Romera Carmena. University of Alcalá. Alcalá de Henares</td>
</tr>
<tr>
<td>Title: Driver Behavior Evaluation by Using Smartphones</td>
<td></td>
</tr>
<tr>
<td>Title: Online City Maps with Pedestrian Behaviours Statistics</td>
<td>Supervisor: Antonio López Peña</td>
</tr>
</tbody>
</table>

Awards to the Best PhD Theses were handed out by Professor Rojas while awards to the Best Master Theses were delivered by Prof. Javier Sánchez-Medina, as Vice-president of the Spanish Chapter of the ITSS. David Vázquez and Mario Passani, as recipients of the First Award in both categories, PhD Thesis and Master Thesis, respectively, delivered a presentation of their respective works. The audience participated actively in the Q/A phase after each presentation, resulting in an interesting exchange of ideas among participants. The DLS event and Awards Ceremony were organized and chaired by Miguel Ángel Sotelo as President of the Spanish Chapter of the ITSS.

After the Awards Ceremony, the audience, awardees, Distinguished Lecturer and organizers enjoyed a dinner together provided by the Spanish Chapter at the Canteen of the Technical School of the University of Alcalá. The event provided the opportunity for a great gathering of members of the ITSS Spanish Chapter.

Miguel Ángel Sotelo
President. Spanish Chapter of the IEEE ITSS
David Vázquez Bermúdez, CVC. Best PhD Thesis Award.

Mario Passani Montero, University of Alcalá. Best Master Thesis Award.
Last September we had the pleasure to hold the 18th edition of the ITS Society's biggest conference, the ITSC2015. As an overall comment the conference was a round success in many senses.

**Technical Program:**

To build the program we were happy to receive 874 papers for review, plus almost 100 more for Workshops. Therefore, we were able to stress the acceptance rate up to a 52%. Therefore we believe we had a very quality biased program to offer. However, as in any reviewing process, it is possible that some good papers were left behind. That is very difficult to avoid at any peer reviewed conference, but we sincerely apology for it.

The Program Committee organised a technical program comprising 410 regular contributions and about 60 workshop papers, offering a broad insight into both the state of the art and the future of Intelligent Transportation Systems. The program was divided in 9 parallel sessions, covering a wide variety of topics dealing with aspects such as driver assistance systems, advanced vehicle safety, automated vehicles, cooperative systems, traffic flow modelling and control, air traffic management, public transportation management, and energy efficiency in ITS, just to mention some of the most popular ones.
The program also included 11 Special Sessions and a successful Industry Track that comprised 30 technical papers organized in 6 different sessions. The increasing size of the Industry Track is a proof of the growing involvement of industry in ITSC. The technical program was complemented with 11 Workshops and a two sessions Tutorial on Tuesday, September 15th, just before the beginning of the main conference. In addition, we had the privilege of welcoming six distinguished keynote speakers: Prof. Philip T. Krein from the University of Illinois at Urbana-Champaign, USA; Prof. Tsuguo Nobe from Nagoya University, Japan; Mr. Jaime Moreno from the General Traffic Directorate, Spain; Prof. Markos Papageorgiou from Technical University of Crete, Greece; Prof. Hermann Winner from the Technical University of Darmstadt, Germany; Mrs. Fiammetta Diani from the European GNSS Agency. Our six keynote speakers offered complementary views of cutting-edge topics in the field of ITS from different perspectives.

We also were able to include two demonstrations: The VERDINO autonomous vehicle, a nationally funded research (STIRPE DPI2013-46897-C2-1-R), organized by our colleagues in the neighbor island Tenerife, at University of La Laguna; and FERRUJE, a driving simulator based on open software, that was enjoyed by many participants during the whole conference, right in front of the registration desk.
Tsuguo Nobe

Hermann Winner’s Keynote

P. Krein Receiving an ITSC2015 Acknowledgement

Markos Papageorgiou’s Keynote

Philip T. Krein’s Keynote

Jaime Moreno’s Keynote

Fiammetta Diani’s Keynote

Hermann Winner’s Keynote
Registration:

We had a very populated edition of ITSC, with nothing less than 608 registrations.

This conference was not just another conference. We have dedicated a lot to the littlest. For example we have selected the registration materials very carefully. The USB drive used for the proceedings is certified to be zero carbon footprint. The material bags and lanyards you wear were produced by a non profit organization that gives employ to people really needed of being re-inserted in our society. You also have in your materials some hand crafted briefcase that was made just for us by a local artisan.
VERDINO Demonstration
With some support from the ITS Society we gave up to 25 student scholarships and 3 special case discounts, for participants coming from developing countries.

We were also lucky to count with the golden on-site registration volunteer team, who developed very professionally and helped a lot our participants in every little detail, always with a smile on their faces.

Only 11 no-shows were reported by the session chairs.

Social Activities:

Welcome reception

In the afternoon of the first day of the conference we organized a generous welcome reception were we had a good attendance of the ITSC2015 participants. They had the chance of start socializing with their colleagues in a relaxed comfortable scenario, plenty of drinks and delightful food.

Banquet

During the banquet we enjoyed a delightful evening. We enjoyed a world class menu plus a number of amenities aiming at giving registrants a taste of some of the unique cultural elements they can find in the Canary Islands.

We showed a couple of dromedary camels, and some of the participants were able to climb to them. We hired one of the best traditional musicians and dances of the Canaries, the “Roque Nublo”
Welcome Reception

Pictures at the ITSC2015 Gala Dinner (Some of them taken by Heramnn Winner)
Awards Ceremony

During the Gala Dinner a number of Awards were delivered by the ITSC2015 organization and the ITS Society. Here is the list:

<table>
<thead>
<tr>
<th>ITSC2015's AWARDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEEE ITSC2015 Best Paper</td>
</tr>
<tr>
<td>&quot;Traffic State Estimation with the Advanced Probe Vehicles using Data Assimilation&quot;</td>
</tr>
<tr>
<td>Toru Seo, Takahiko Kusakabe and Yasuo Asakura (Tokyo Institute of Technology)</td>
</tr>
<tr>
<td>IEEE ITSC2015 Second Best Paper</td>
</tr>
<tr>
<td>&quot;Inhomogeneous Model Predictive Control Horizon Discretization for an Urban Truck Energy Efficient Driving Application&quot;</td>
</tr>
<tr>
<td>by Michael Henzler (Daimler), Michael Buchholz (University of Ulm) and Klaus Dietmeyer (University of Ulm)</td>
</tr>
<tr>
<td>IEEE ITSC2015 Third Best Paper</td>
</tr>
<tr>
<td>&quot;Macroscopic Modeling of Spatiotemporal Information Flow Propagation Wave under Vehicle-to-Vehicle Communications&quot;</td>
</tr>
<tr>
<td>by Yong Hoon Kim, Srinivas Peeta and Xiaozheng He (Purdue University)</td>
</tr>
<tr>
<td>IEEE ITSC2015 Best Student Paper</td>
</tr>
<tr>
<td>&quot;Semi-Markov Process Based Localization using Radar in Dynamic Environments&quot;</td>
</tr>
<tr>
<td>by Matthias Rapp (University of Ulm), Markus Hahn (Daimler AG), Thom Markus (University of Ulm), Jürgen Dickmann (Daimler AG) and Klaus Dietmeyer (University of Ulm)</td>
</tr>
</tbody>
</table>
### IEEE ITSC2015 Awards

**IEEE ITSC2015 Second Best Student Paper**
"Speedup of DTA-Based Simulation of Large Metropolises for Quasi Real-Time ITS Applications"
by Agop Koulakezian (University of Toronto), Billy Graydon (University of Toronto), Hossam Abdelgawad (University of Toronto, Cairo University), Baher Abdulhai (University of Toronto), Yi-Chang Chiu (University of Arizona) and Alberto Leon-Garcia (University of Toronto)

**IEEE ITSC2015 Best Workshop Paper**
"Pedestrian Intention and Pose Prediction through Dynamical Models and Behaviour Classification"
by Raúl Quintero Mínguez, Ignacio Parra Alonso, David Fernandez Llorca and Miguel Ángel Sotelo (University of Alcalá)

**IEEE ITSC2015 Second Best Workshop Paper**
"A Probabilistic Framework for Microscopic Traffic Propagation"
by Tim Wheeler (Stanford University), Philipp Robbel (Robert Bosch LLC) and Mykel Kochenderfer (Stanford University)

**IEEE ITSC2015 Best Reviewer**
Dr. David Martín Gómez
Universidad Carlos III de Madrid

**IEEE ITSC2015 Best Associate Editor**
Eng. Senthil Kumar Yogamani
Valeo Vision Systems, Ireland

### ITS Society's AWARDS

**2015 IEEE ITSS Best Dissertation Award**
First Prize
"Traffic Modeling, Estimation and Control for Large-Scale Congested Urban Networks"
Mohsen Ramezani Ghalenoei

**2015 IEEE ITSS Best Dissertation Award**
Second Prize
"Generic Model Predictive Control Framework for Advanced Driver Assistance Systems"
Meng Wang

**2015 IEEE ITSS Best Dissertation Award**
Third Prize
"Modeling of Driver Behavior in Real World Scenarios Using Multiple Noninvasive Sensors"
Nanxiang Li

**2015 IEEE ITSS Lifetime Achievement Award**
Lyle G. Saxton
2015 IEEE ITSS Institutional Lead Award
LISA: Laboratory for Intelligent and Safe Automobiles
University of California, San Diego

2015 IEEE ITSS Outstanding Research Award
Ümit Özgüner
The Ohio State University

2015 IEEE ITSS Outstanding Application Award
“ACP-based Qingdao Parallel Urban Traffic Management and Control System”
Fei-Yu Wang
Intelligent Control and Systems Engineering Center at CASIA

David Martín Gómez receiving the Best Reviewer Award

Fei-Yue Wang receiving the Outstanding Application Award

Mohan Trivedi receiving the Institutional Lead Award

Mohsen Ramezani receiving the Best Dissertation Award

Lyle Saxton Lifetime Achievement Award

Tim Wheeler receiving the 2nd Best Workshop Paper Award
Coffee Breaks and Lunches

We saw a lot of profitable and happy conversations during lunches and coffee breaks. We had the chance of enjoying a cup of coffee in the sun over “Las Canteras” Beach.

Women in Transportation Dinner

In the spirit of "Women in Engineering" we want to foster science specifically from "Women in Intelligent Transportation Systems" (ITS) extending the interest in the field among female students to equalize the gender diversity in workplaces.

Prof. Cristina Olaverri-Monreal, the IEEE ITS VP for Education, organized a dinner on, September the 17th, at 7 pm, in a very nice scenario by the sea side.
Student Activities

One of the most popular activities in ITSC2015 were the Student Activities, financed by the ITS Society and organized by Eng. Raquel Pérez the day before the conference started.

Aiming at creating a relaxed and enjoyable atmosphere while enabling interactions between the attendees, the following activities were proposed:

- Kayak tour along a beach of the Las Palmas de Gran Canaria city
- Stand up paddle in a big surfboard
- Learn and practice the basics of surfing in Las Canteras beach.

Instructors for each activity were teaching, supervising and helping the attendees with tasks like handled with the boards, kayaks while providing some safety advices and some tricks to maximise the enjoyment of these water activities.

These activities, designed for students and attendees with a juvenile soul, were highly demanded. Therefore, the activities were run from 9:00 am to 8:00 pm on September 14, 2015. The at-
tendees were separated in seven groups, allowing 84 people to participate and enjoy the activities in the time slot that best suit them.

Some photos were taken during the day to have a nice memory of their adventures and experiences on the beach during the activities.

**Additional Added Values:**

**SmartApp**

During the Conference, all the registrants were able to use a custom made Smart Application for following the program, receiving push-up notifications on the events as they were happening, buses departure times, demonstrations to start, etc. Some of the services provided were:

- Local information, maps, etc.
- Push-up notifications, for they be aware of all happening each time,
- Contacts of all registrants
- Proceedings,
- Social networks of the event,
- Search feature for authors, topics, papers,
- myEWGT2017 service for configuring their personal program
- and a lot more.

You can still use the conference Smartapp. You can install it from the above links to Google Play and iTunes.

Using the SmartApp we were also able to innovate in another form, by passing participants a little survey we will comment on later in this report.
Additionally, we run a contest to engage the participation of attendants. We gave the best “ITSC2015 Twitter Reporter” prize to the participant who created more awareness of the event live in Twitter. The winner was Xiangpeng LIU, from University of Bremen.

Feedback:

Using the Conference SmartApp we organized a survey for getting the feedback of participants after the conference. To stimulate participation we raffle an i-Pad among the contributors to this Feedback survey that was given to Martin Stubenschrott, from Austrian Institute of Technology.

To end this report here we share a few statistics we were able to receive from the generous participation of up to 155 of the registrants.

The most important question in our survey was:

“Did we exceed your expectations with ITSC2015?”

We got a 89.74% that replied YES, which makes us very happy! Here we are sharing the average values for all the numerical questions asked, graded from 0 to 5, 5 meaning “perfect”.

1. - What is your overall impression about ITSC 2015? 4.25
2. - Keynote Speakers 3.77
3. - Workshops 3.99
4. - Tutorials 3.77
5. - Special Sessions 4.05
6. - Demonstrations 3.93
7. - Overall Technical Quality 3.93
8. - Student Activities 4.5
9. - Welcome Reception 4.28
10. - Conference Gala Dinner 3.98
11. - Conference management system, Ex Ordo 3.89
12. - ITSC2015 Smart App 4.34
13. - IEEE ITSC 2015 website and social media management 4.11
14. – CPS Proceedings developers 4.19
15. – Official travel agency "Viajes Insular" 3.76
16. – Food at the ITSC2015 venue 4.13

As it is natural we also received a lot of “not so good” comments which are very valuable for us and for the ITS Society for future conferences. We have already shared that information with our colleagues organizing the next conferences and we hope all the participants find further improvements regarding that suggestions. Thanks for that!
Thanking

The IEEE ITSC2015 has been a big conference, big in many senses. And against common sense, the organization of it have been done very professionally but almost entirely by volunteers. An amazing troop of professors and engineers that sacrificed some time (a lot in many cases) from their professional and personal lives to generously contribute to an ideal: To put together an optimal scientific and personal experience and a truly valuable technical contribution for the years to come.

Therefore, kudos to all of them, to our volunteers!! We received 874 submissions, a new record for ITSCs. Kudos to 1322 reviewers that have contributed with 3039 reviews, making an average of almost 3.5 reviews per paper, with no paper with less than two reviews and half of them with 4 and 5 reviews.

Thank you to our 152 associate editors that made very difficult recommendations, and specially to “Los 20 valientes” who made the final push guaranteeing the minimum quality and deadlines we set up in the beginning. They really proved they were brave (valientes).

We offered our volunteers little discounts in their registrations as a gratitude message from the organization of ITSC2015. We also innovated giving the Best Reviewer and Best Associate Editor Awards during the ITSC2015 Gala Dinner.

At this point we need to talk about our organizing committee. We have had a golden team. They all made fantastic contributions, from the promotion of the event, to the technical content building or sponsorships hunting.

We want to make a few specific thanking notes to some of them. Thank you very much to the Program Committee team, in particular, to Cristina Olaverry-Monreal, for her dedication assisting Professor Sotelo in the Program crafting and a lot more details.

Prof. Hilmi Berk Celikoglu was also essential. He worked relentlessly to make like a spin-off conference out of the Workshops and Tutorials day with an extremely interesting set of contents and a new standard on technical rigour for this, sometimes until now a bit decaf part of the conference.

Prof. Jose Maria de Fuentes and Dr. Rafael Arnay are also to be praised. They dedicated hundreds of hours, literally, to gather the funds we have spent to put everything together. Their professionalism and dedication is admirable.

These guys and Prof. Itziar Alonso configured the economic managing force of the conference. They were a dream team, and their work extends way beyond everyone is back home, to close the financial report of the event. It is hard work. Thanks very much!

We also need to mention Dr. Néstor Morales, our publications chair, who is the one to be blamed of the beautiful Proceedings and Booklet we enjoyed. H

We had the pleasure of counting Prof. Alexis Quesada Arencibia in our team. He dedicated a lot of his know how on local conference organizing to the conference, in particular to the marvelous Gala Dinner we enjoyed.
We have had a record in participation for our student activities. Kayak, Surf and Paddle were offered, all included in their registration fee. This part of the conference and many other “little” details had behind Eng. Raquel Pérez Suárez.

Many others did contribute quite a lot, making time in their crazy schedules for it. We have limited space here but, THANK YOU VERY MUCH!

And this is all of our report! We are very satisfied with the results and grateful for the confidence received from the ITS Society and the ITSC2015 participants. Thanks to all of them!

Javier J. Sanchez-Medina
Miguel Ángel Sotelo
New Website for the IEEE ITS Magazine Submissions

We have recently completed our transitioning towards a new, independent site for the ITS Magazine, separate from the T-ITS site that the ITSS community has been using so far. The new ITS Mag site is live from December 15, 2015. It can be accessed at the following address:

mc.manuscriptcentral.com/itsm

The site has been created as a replica of the T-ITS site, including all its users and parameters. Accordingly, all users can access the new site using the same user name that you have been using in the T-ITS site. Let me explain how things will work from now on:

- All legacy ITS Mag’s manuscripts (already under review) will continue to be managed via the former site (mc.manuscriptcentral.com/t-its), while new submissions from December 15 onward will have to be managed using the new site (mc.manuscriptcentral.com/itsm). It means that during the transition period we will use both sites.
- The first time you enter the new site as user, you will have to provide your keywords (keywords have not been imported from the former site) and reset your password.

Simona Bertè, who has been Editorial Assistant to both the Transactions on ITS and the ITS Magazine for so many years, has finished her service on December 2015. As Editor-in-Chief of the ITS Magazine and as a member of the ITSS, I would like to express my utmost gratitude to Simona for her efficient and dedicated work to our society during all these years. Simona, thanks for everything you have done for us and for your great contribution to the ITSS.

Likewise, I would like to thank all of you once more for your continuous support to the ITS Magazine.

Miguel Ángel Sotelo.
Editor-in-Chief. IEEE Intelligent Transportation Systems Magazine
ITS Podcast New Episodes and Information

Please, circulate this!

**ITS Podcast Episode 30:** ITSS Lifetime Achievement Awardee, Lyle Saxton

The central content of this issue is a fascinating and inspiring interview with Mr. Lyle Saxton, a veteran engineer in our field that has had a lot of responsibility posts. Our guest talked about very hot topics in the field of intelligent transportation but with the privileged perspective of an extensively experienced colleague. He just received the IEEE Intelligent Transportation Systems Society’s Lifetime Achievement Award! Don’t miss this one, it is really inspiring and educative!

**ITS Podcast Episode 31:** 2400Km of Autonomous Driving with Prof. Raul Rojas. Special Issue about the IEEE ITSS Spanish Chapter’s DLS talk

This is a special episode about two events coming from the Spanish Chapter of the ITS Society! This chapter has organized a best ITS PhD and Master thesis award. We got to interview the PhD Awardee, professor David Vazquez. His thesis title was “Domain Adaptation of Virtual and Real Worlds for Pedestrian Detection”. Are you into computer vision and you bored of labelling objects in real world scenes? Well, these smart guys in the Barcelona have a very nice idea, using a Virtual World to train that detectors.

Additionally, this chapter has organized another talk within the IEEE ITS Society Distinguished Lecture Series. The Chapter president, Prof. Miguel Angel Sotelo, from University of Alcala invited and introduced professor Raul Rojas, from the Free University of Berlin. He came to talk about Autonomous Driving and his lab’s recent challenging and exciting experiment. They sent their automated prototype for a 2400Km journey in Mexico. We also have some very interesting comments from professor Rojas.

**ITS Podcast Episode 32:** STIRPE. Autonomous Driving in Unstructured Environments, with Leopoldo Acosta

For this episode we have interviewed professor Leopoldo Acosta, from the University of La Laguna in Spain, about their intelligent vehicle, VERDINO (national research project STIRPE, DPI2013-46897-C2-1-R). That is not the usual intelligent vehicle for roads. Instead, it is a platform developed to operate in unstructured zones, like pedestrian zones. So it has to deal with humans in a closer than usual way for intelligent vehicles.
Volunteer Recruiting Campaign:
We are recruiting volunteers for the ITS Podcast. If you like our show and you think you can share some of your time with us, please let us know. Send us an email to itsspodcast@gmail.com.

ITS Podcast Promotion:
Here is a new promotion we are doing: We have a present for your, our selected and special listener. Send a message to itsspodcast@gmail.com with the following text in its subject: “I am an ITSPodcast listener, I want my Holidays gift!” We still have a few packages ready to be sent! Please include in that email body your surface address and T-shirt size.

Subscribe to the Youtube Channel of the IEEE ITS Podcast:
We are launching our new YouTube Channel here.

Please, check it out and feedback the show with your comments at the podcast website or at our social networking accounts: LinkedIn, Twitter (@ITSPodcast), Facebook, Google+, Youtube

Javier J. Sanchez-Medina
EiC IEEE ITS Podcast
2016 IEEE Intelligent Vehicles Symposium
June 19-22, 2016 | Lindholmen Science Park, Gothenburg, Sweden
Sponsored by the IEEE Intelligent Transportation Systems Society

Call for Papers

The Intelligent Vehicles Symposium (IV’16) is a premier forum sponsored by the IEEE Intelligent Transportation Systems Society (ITSS). Researchers, engineers, practitioners, and students, from industry, universities and government agencies are invited to present their latest work and to discuss research and applications for Intelligent Vehicles and Vehicle-Infrastructure Cooperation. Technical sessions, workshops, poster sessions, exhibition, and technical visits will be organised. The IV2016 is hosted by Chalmers University of Technology and SAFER Vehicle and Traffic Safety Centre.

Gothenburg is a perfect city for the symposium because it is the centre of automotive industry in Sweden, with headquarters of Volvo Trucks, Volvo Cars, and the supplier Autoliv, and where many international companies and academia have their development and research base. The brand new proving ground for active safety testing – AstaZero – is very close.

Jonas Sjöberg, General Chair of IV’16
Brendan Morris, Program Chair of IV’16
Anna Nilsson-Ehle, Director of SAFER

PROGRAM TOPICS INCLUDE BUT ARE NOT LIMITED TO:

- Advanced Driver Assistance Systems
- Automated Vehicles
- Vehicular Safety, Active and Passive
- Vehicle Environment Perception
- Driver State and Intent Recognition
- Eco-driving and Energy-Efficient Vehicles
- Impact on Traffic Flows
- Cooperative Vehicle-Infrastructure Systems
- Collision Avoidance
- Pedestrian Protection
- V2I / V2V Communication
- Proximity Detection Technology
- Assistive Mobility Systems
- Proximity Awareness Technology
- Intelligent Ground, Air and Space Vehicles
- Autonomous / Intelligent Robotic Vehicles
- Image, Radar, Lidar Signal Processing
- Information Fusion
- Vehicle Control
- Telematics
- Human Factors and HMI
- Electric and Hybrid Technologies
- Novel Interfaces and Displays
- Intelligent Vehicle Software Infrastructure

IMPORTANT DATES

January 22, 2016: Paper submission deadline (Note, this is the FINAL extension)
January 22, 2016: Special/Tutorial Sessions/Workshop Proposal deadline
March 25, 2016: Notification of Acceptance
April 22, 2016: Final Paper Submission

ORGANIZING COMMITTEE

General Chair:
Jonas Sjöberg, Chalmers, Sweden

General Host:
Anna Nilsson-Ehle, SAFER, Sweden

Program Chair:
Brendan Morris, University of Nevada, USA

Program Co-Chairs:
Europe: Sergiu Nedevschii, TU Cluj-Napoca, Romania
Asia: Chunzhao Guo, Toyota Central R&D, Japan
South America: Luiz Goes, ITA, Brazil
Industry: Dariu Gavrila, Daimler R&D, Germany

Finance Chair:
Tomas McKelvey, Chalmers, Sweden

Publicity Co-Chairs:
Javier J. Sanchez-Medina, University of Las Palmas de Gran Canaria, Spain
Petros Ioannou, University of Southern California, USA
Lisa Knutsson, SAFER, Sweden

Workshops/Tutorials Co-Chairs:
Cristina Olaverri Monreal, University of Applied Sciences Technikum, Austria
Fernando Garcia, Universidad Carlos III de Madrid, Spain
Fredrik Gustavsson, Linköping University, Sweden

Demonstrations Co-Chairs:
Paolo Falcone, Chalmers, Sweden
Mathias Lidberg, Chalmers, Sweden
Christoph Stiller,KIT, Germany
Peter Janevik, AstaZero, Sweden

Exhibition and Sponsor Chair:
Henk Wymeersch, Chalmers, Sweden

Local Arrangement/Main Administrator:
Lisa Knutsson, SAFER, Sweden

Website:
Jonas Fredriksson, Chalmers, Sweden

Student Activities Chair:
Mario Zanon, Chalmers, Sweden

Paper Awards Chair:
Miguel Angel Sotelo Vazquez, University of Alcalá, Spain

Senior Advisors:
Umit Ozgüner, The Ohio State University, USA
Miguel Angel Sotelo Vazquez, University of Alcalá, Spain

www.iv2016.org
INTELLIGENT VEHICLE SYMPOSIUM 2016 TUTORIALS AND WORKSHOPS
CALL FOR PAPERS
2016 IEEE Intelligent Vehicles Symposium, IV’16
June 19-22, 2016, Gothenburg, Sweden
http://iv2016.org/

******************************************************************************

SUBMISSION DEADLINE: January 22, 2016

AIM AND SCOPE
------------------------------------------------------------------------------------------------------------------
The IV 2016 offers the opportunity for participation in several workshops and tutorials. Both, workshops and tutorials should cover a specific topic of interest in the ITS area. Workshops aim to foster discussion on issues related to the field, emphasizing the interaction between the presenter and the audience. Each workshop will have a number of paper presentations and/or invited talks without paper submission.
The IV16 workshops welcome and encourage contributions reporting on original research, work under development and experiments of different fields.
Proposals for workshops and tutorials can be submitted mentioning the title, aim of scope, organizers and prospective papers until January 22, 2016

SUBMISSION INSTRUCTIONS AND PUBLICATION
------------------------------------------------------------------------------------------------------------------
Prospective authors are invited to submit contributions reporting on their current research and ideas that motivate discussion during the workshop.
Accepted papers will be included in the conference proceedings in a digital format and will be indexed in the IEEE Xplore Digital Library. Authors must follow the IEEE Conference format in the preparation of their manuscripts of maximum 6 pages in standard IEEE double column PDF format and submit through the conference submission system for peer-review by the International Program Committee. All accepted papers will imply that at least one of the co-authors attends the workshop to present the work. Authors will be given a certain time to orally present their papers and discussion will be actively motivated among attendees.

Titles and abstracts of invited talks that do not present a paper that has been accepted in the workshop will be published in the main conference proceedings.

IMPORTANT DATES
* Tutorial/workshop proposal deadline: January 22, 2016
* Notification of tutorial/workshop acceptance: February 9, 2016
* Notification of workshop paper acceptance: April 8, 2016
* Final Workshop paper submission: April 22, 2016

ORGANIZING COMMITTEE
------------------------------------------------------------------------------------------------------------------
* Cristina Olaverri Monreal, University of Applied Sciences Technikum Wien, Austria, olaverri@technikum-wien.at
* Fernando Garcia, University Carlos III, Madrid, Spain, fegarcia@ing.uc3m.es
* Fredrik Gustavsson, Linköping University, Sweden, fredrik@isy.liu.se
CALL FOR PAPERS

The IEEE Intelligent Transportation Systems Conference is the annual flagship conference of the IEEE Intelligent Transportation Systems Society. IEEE ITSC 2016 welcomes articles in the field of Intelligent Transportation Systems, dealing with new developments in theory, analytical and numerical simulation and modeling, experimentation, demonstration, advanced deployment and case studies, results of laboratory or field operational tests, under the general theme of "Intelligent Transportation for Smarter Societies".

Brought for the first time to South America, IEEE ITSC 2016 will be held in Rio de Janeiro, one of the major economic and cultural hubs in the continent. A cosmopolitan metropolis, known worldwide for its scenic beauty and its natural resources, the city provides a harmonious and agreeable environment for its residents and visitors, both for leisure and work. The Technical Program of IEEE ITSC 2016 will take place at the renovated Sheraton Grand Rio Hotel & Resort, the city's only five-star beachfront resort with an extensive recreational area, spa, and amenities.

Program Topics

The technical areas include but are not limited to the following topics:

- Transportation Networks
- Advanced Public Transportation Management
- Ports, Waterways, Inland navigation, and Vessel Traffic Management
- Modeling, Simulation, and Detection of Vulnerable Road Users and Animals
- Air, Road, and Rail Traffic Management
- ITS User Services
- Emergency Management
- Artificial Transportation Systems
- Transportation Electrification
- Emissions, Noise, Environment Management
- Management of Exceptional Events: Incidents and Evacuation
- Security, Privacy and Safety Systems
- Transportation Smartification
- Commercial Vehicle Operations
- Intelligent logistics
- Sensing, Detectors and Actuators
- Connected and Probe Vehicles
- Big Data and Naturalistic Datasets
- Communication in ITS
- Cooperative Techniques and Systems
- Electronic Payment Systems
- Smart Mobility
- Traffic Theory for ITS
- Modeling, Control and Simulation
- HMI and Human-machine interaction
- Advanced vehicle safety systems
- Human Factors, Travel Behavior
- Behavioral modeling in ITS
- ITS Field Tests and Implementation
- Driver and Traveler Support Systems
- Intelligent Vehicles
- Vision, and Environment Perception
- Vehicle localization and autonomous navigation
- Crowdsourcing and Social Transportation
- Education in Intelligent Transportation Systems
- New trends and utopias in ITS

Paper Submission & Publication

Complete manuscripts in PDF format must be electronically submitted for peer-review in IEEE standard-format. Detailed submission instructions can be found through conference website at: http://www.ieee-itsc2016.org

Papers accepted for the technical program of the conference will be included in the conference proceedings to be published and indexed by IEEE in its IEEE Xplore Digital Library.

Selected papers of exceptional quality will be invited for submission to special issues of the IEEE Transactions on ITS and the IEEE ITS Magazine. Authors will be asked to revise their manuscripts according to the standards of the Transactions and the Magazine.
The IEEE Transactions on Intelligent Vehicles (T-IV) publishes peer-reviewed articles that provide innovative research concepts and application results, report significant theoretical findings and application case studies, and raises awareness of pressing research and application challenges in the areas of intelligent vehicles, and in particular in automated vehicles.

The IEEE Transactions on Intelligent Vehicles will commence publication in 2016, with 4 issues annually. Prospective authors are invited to submit original contributions or survey papers for review for publication in T-IV. Topics of interest include (but are not limited to):

- Advanced Driver Assistance Systems
- Automated Vehicles
- Active and Passive Vehicle Safety
- Vehicle Environment Perception
- Driver State and Intent Recognition
- Eco-driving and Energy-efficient Vehicles
- Cooperative Vehicle Systems
- Collision Avoidance
- Pedestrian Protection
- Proximity Detection Technology
- Assistive Mobility Systems
- Proximity Awareness Technology
- Autonomous / Intelligent Robotic Vehicles
- IV related Image, Radar, Lidar Signal Processing
- Information Fusion
- Vehicle Control
- Human Factors and Human Machine Interaction
- IV technologies in Electric and Hybrid Vehicles
- Novel Interfaces and Displays
- Intelligent Vehicle Software Security

All manuscripts must be submitted through Manuscript Central at http://mc.manuscriptcentral.com/t-iv

Refer to http://its.ieee.org/2014/10/06/submitting-a-paper/ for general information about electronic submission through Manuscript Central.

Editor-in-Chief: Prof. Ümit Özgüner, The Ohio State University, Department of ECE and Center for Automotive Research (CAR), Columbus, Ohio USA. (ozguner.1@osu.edu)
Call for Papers – *IEEE ITS Magazine*

**Special Issue on “Autonomous Cooperative Driving”**

**Guest Editors:**
Dr. Martin Lauer, Karlsruher Institut für Technologie, Germany, martin.lauer@kit.edu
Dr. Chunzhao Guo, Toyota Central R&D Labs., Inc., Japan, czguo@mosk.tytlabs.co.jp
Dr. Javier Alonso, University of Alcalá, Spain, javier.alonsoruiuz@uah.es

**Aim and Scope**

Cooperation among autonomous vehicles is essential to achieve the true potential of self-driving cars for improving traffic flow, reducing the environmental impact of traffic, increasing the road safety, and, at the end, accomplishing the ultimate goal of zero traffic accidents. The commonly agreed advantages of autonomous vehicles (fewer vehicle crashes due to drivers’ errors, increased mobility of the young, the elderly, and the disabled people, more efficient traffic flow and decreased congestion, increased fuel efficiency, and the increase of public space as the vehicles won't need proximate urban parking) could all be better accomplished with cooperation between autonomous vehicles, road infrastructures and other road users.

The special issue on "Autonomous Cooperative Driving" of the IEEE Intelligent Transportation Systems Magazine jointly organized with the IEEE Intelligent Systems Magazine, aims to present new approaches on intelligent transportation systems technologies. It is focused on autonomous and connected vehicles, specifically, the ones related to the cooperation among self-driving vehicles. We expect articles describing novel approaches in the context of vehicle cooperation, such as intersection solving, platooning maneuvers, cooperative or shared perception, V2X communications, collaborative decision making, etc.

We are pleased to welcome and to encourage prospective authors to contribute with manuscripts reporting on original research in the different fields concerning autonomous cooperative driving.

Topics of interest include, but are not limited to:

- Cooperative maneuvers (platooning, overtaking, intersection solving, etc.).
- Novel techniques of traffic management based on cooperative vehicles
- Cooperative perception of the environment.
- V2V, V2I communications.
- Collaborative planning and decision making in autonomous vehicles.

**Important Dates:**

- Paper submission deadline: March 15, 2016
- Author notification: May 31, 2016
- Revised manuscript submission deadline: July 31, 2016
- Final decision notification: September 30, 2016
- Final paper submission deadline: November 30, 2016
IEEE Intelligent Transportation Systems Magazine Special Issue on 'High Performance Computing in Simulation and Optimization of Dynamic Transportation Networks'

Description: When it comes down to Real Time traffic management, we need accurate simulations that can give us a sharp image of what is going on in the streets and what is going to be in future. However, accuracy brings along heavier algorithms, a higher performance demand from the hardware to be used. Luckily, the current technological progressions on electronics and computer science possess a great potential to extend the application of computing methodologies in research and industry. Building a powerful parallel computer is not an expensive or extremely complex goal anymore. The increasing power of computers has advanced the modeling, simulation, and optimization of complex systems such as dynamic transportation networks. This gave rise not only to the incorporation of various existing theories and methods to network problems, but also to the robust simulation of interactive user-network behavior for real time solutions. Considering the need for the efficient modeling and simulation of vehicular network traffic within temporal domain with reasonable computation load, this special issue solicits novel contributions and breaking results on all aspects of high performance computing applications in network traffic simulation.

In connection with the activities of the 19th EURO Working Group on Transportation Meeting (EWGT2016), we seek submissions from participants to the special session on 'High Performance Computing in Simulation and Optimization of Dynamic Transportation Networks' at EWGT2016. Since we aim to provide a collage of high-quality papers presenting crucial aspects of dynamic network simulation and optimization including both established and state-of-the-art solutions in this field and also showcase emerging innovative ideas and technologies this special issue is open to the entire international research community in interest. Papers suitable for this issue should focus on topics including (but not limited to):
- High performance computing in modeling and optimization of dynamic network traffic;
- Network traffic state estimation and prediction;
- Emerging data technologies to support dynamic network management applications;
- Large-scale urban traffic control;
- Combined network traffic control and dynamic network management; and
- Relevant case studies and applications.

Guest Editors:
Hilmi Berk Celikoglu
Technical University of Istanbul, Turkey
celikoglu@itu.edu.tr

Javier J. Sánchez-Medina
Universidad de Las Palmas de Gran Canaria, Spain
javier.sanchez.medina@ieee.org

The intended timeline for the overall publication process of the special issue is:
Submission deadline of full papers: November 15, 2016
Feedback from first-round reviews: February 15, 2017
Revised manuscripts due: April 01, 2017
Final manuscripts due: May 15, 2017
Publication: Fall 2017

Submission via Manuscriptcentral
All papers should be submitted at the 'IEEE Transactions on Intelligent Transportation Systems and Intelligent Transportation Systems Magazine' manuscriptcentral via 'https://mc.manuscriptcentral.com/t-its'. While submitting a paper to the special issue, please choose the article type 'Magazine Special Issue - EWGT2016: Simulation and Optimization of Dynamic Network Traffic' otherwise your submission will be handled as a regular manuscript. All submissions will go through the journal’s standard peer review process. Criteria for acceptance include originality, contribution, and scientific merit. For author guidelines, please see the IEEE Tools for Authors at 'http://www.ieee.org/publications_standards/publications/authors/authors_journals.html'.

All inquiries regarding this call for papers should be directed to Guest Editors listed above or to the Editor-in-Chief, Dr. Miguel Ángel Sotelo at ‘miguel.sotelo@uah.es’.
Call for Papers and Participation

Special Session on Intelligent Cooperative Driving, and Autonomous Connected Vehicles (ICD & ACV 2016)
As part of the 2016 International Conference on Collaboration Technologies and Systems (CTS 2016)


SCOPE AND OBJECTIVES

The special session will present techniques, methodologies, algorithms, system integrations, human factors and architectures issues related to Intelligent Cooperative Driving, and Autonomous Connected Vehicles. The ICD & ACV Special Session topics include (but are not limited to) the following topics, which are detailed overleaf:

Networking and Mobile Internet for Autonomous Connected Vehicles
Self-Driven Connected Vehicles and Collaboration
Transportation and Cooperative Connected Vehicles

PAPER SUBMISSION

You are invited to submit original and unpublished research works on above/overleaf and other topics related to Intelligent Cooperative Driving, and Autonomous Connected Vehicles. Submitted papers must not have been published or simultaneously submitted elsewhere. Submission should include a cover page with authors’ names, affiliation addresses, fax numbers, phone numbers, and email addresses. Please, indicate clearly the corresponding author and include up to 6 keywords from the above list of topics and an abstract of no more than 400 words. The full manuscript should be at most 8 pages using the two-column IEEE format. Additional pages will be charged additional fee. Short papers (up to 4 pages), poster papers and posters (please refer to http://cts2016.cisedu.info/t-call-for-papers/call-for-posters) will also be accepted for submission. Please include page numbers on all preliminary submissions to make it easier for reviewers to provide helpful comments. If the submission is for a poster, poster paper or short paper, indicate that as well on the manuscript.

Authors are invited to submit a PDF copy of their manuscript to the Special Session using the following link: https://easychair.org/conferences/?conf=icdacv2016. Each paper will receive a minimum of three reviews. Papers will be selected based on their originality, relevance, technical clarity and presentation. Submission implies the willingness of at least one of the authors to register and present the paper, if accepted. Authors of accepted papers must guarantee that their papers will be registered and presented at the special session.

Accepted papers will be published in the International Conference on Collaboration Technologies and Systems conference proceedings. Instructions for final manuscript format and requirements will be posted on the CTS 2016 Conference web site. It is our intent to have the proceedings formally published in hard and soft copies and be available at the time of the conference. The proceedings is projected to be included in the IEEE Digital Library and indexed in major indexing services accordingly.

IMPORTANT DATES

<table>
<thead>
<tr>
<th>Paper Submission Deadline</th>
<th>Notification of Acceptance</th>
<th>Registration &amp; Camera-Ready</th>
<th>Conference Dates</th>
</tr>
</thead>
</table>

SPECIAL SESSION ORGANIZERS

If you have any questions about paper submission or the special session, please contact the organizers.

Dr. Cristina Olaverri Monreal  
University of Applied Sciences  
Technikum Wien  
olaverri@technikum-wien.at

Dipl.-Medieninf. Markus Zimmermann  
Institute of Ergonomics  
Technical University of Munich  
m.zimmermann@tum.de

Dr. Alexander Paz  
University of Nevada – Las Vegas  
Nevada, USA  
apaz@unlv.edu

TECHNICAL PROGRAM COMMITTEE

All submitted papers will be reviewed by the special session technical program committee members following similar criteria used in CTS 2016: Myounghoon Jeon (Michigan Technological University, USA); José Santa (Spanish Air Force Academy, Spain); Chris Schwarz (University of Iowa, USA); Enrique Cabello Pardos (Universidad Rey Juan Carlos, Madrid, Spain); Congyi Liu (Qualcomm Inc., San Diego, USA); Gerd Krizek (UAS Technikum Wien, Austria); Klaus Bengler (Technical University of Munich, Germany); Sören Hohmann (Karlsruhe Institute of Technology, Germany); Andry Rakotonirainy (Queensland University of Technology, Australia); Johann Kelsch (German Aerospace Center DLR, Braunschweig, Germany); Andrew L. Kun (University of New Hampshire, USA); Andreas Lüdtke (OFFIS Institute for Information Technology, Germany); Frank Flemisch (RWTH Aachen University, Germany); Martin Baumann (Ulm University, Germany); Thierry Bellet (IFSTTAR, France); Fabio Tango (Centro Ricerche Fiat, Italy); Fernando Garcia (University Carlos III, Madrid, Spain); Joost de Winter (Delft University of Technology, The Netherlands).
Networked and Mobile Internet for Autonomous Vehicles: Vehicular Ad Hoc Networks (VANET); In-Vehicle Networks and Communications infrastructure; V2X, V2I and V2V Systems, Communications, Applications and Services; Networking with Other Road Users; Vehicular Networks; Access Networks; Security and Privacy for Vehicular and Ad Hoc Networks; Opportunistic and Cooperative Networking; Cooperative Communications, Distributed MIMO and Relaying; Physical and MAC Layer Design for Cooperative Wireless Networks; Green, Energy-efficient and Energy-aware Networks and Communication Systems; Vehicular Mobile Web-based Applications and Services; Information Distribution Services; Location Based Services; Context Aware Applications and Services; Service Architectures and Middleware; Service Creation and Composition; Vehicular Mobile Clouds and Cloud Computing; Augmented Reality; Machine-to-Machine (M2M) Interaction; Internet of Things (IoT) Networks and Communications; Smart Sensors, Sensor Networks, and Sensor Integration for Autonomous Vehicles and Robots.

Self-Driven Connected Vehicles and Collaboration: Cooperative Vehicle-Infrastructure Systems; Navigation, Guidance and Control of Autonomous Vehicles; Intelligent, Autonomous and Autonomic Systems in ITS; Telematics Systems and Services; Driver Assistance; Active Safety (Lane Departure Warning); Lane Keeping Assistance, Collision & Blindspot Warning, Active Pedestrian Protection, Backover Protection, Collision Imminent Braking, Collision Avoidance; Vehicle Environment Perception; Driver State and Intent Recognition; Driver Stimulation Measures; Driver Behavior Monitoring; Vehicle-Highway Automation; Multiple Vehicle Systems and Networks of Autonomous Vehicles; Impact on Traffic Flow; Eco-Driving, Eco-Routing and Energy-Efficient Vehicles; Vision, Radar, Lidar Systems and Processing in Vehicles and ITS; Audio and Speech Systems and Processing in Vehicles and ITS; Data Fusion and Information Integration in Vehicles and ITS; Pattern Analysis and Computational Intelligence in Vehicles and ITS; Human Factors and Consumer Experience in Vehicles and ITS; Systematic Detection of Affective/Emotional States; Human-Machine Interface and Interaction (HMI) in Vehicles and ITS; Decision Making for Autonomous Driving; Assistive Mobility Systems; Automated, Intelligent and Autonomous Vehicles and Robots; Architectures for Intelligent Autonomous Systems (Land, Marine, Aerial and Space Vehicles); Fault Tolerant Autonomous System Architectures; Multiple Robot Systems and Networks; Cooperative Robots and Cooperative Driverless Vehicles; Applications, Case Studies and Test Evaluations of Intelligent Autonomous Vehicles; Experimental Systems, Testbeds and Field Trials.

Transportation and Cooperative Connected Vehicles: Collective Driving Mechanisms; Cloud Computing for Transportation; Connected Vehicles for Special Needs; Emergency Warning System for Vehicles; Cooperative Adaptive Cruise Control; Cooperative Forward Collision Warning; Multimodal Transportation (Journey Planner, Real Time Traveler Information, Payment and Ticketing, Outdoor and Indoor Navigation, etc.); Innovative Multimodal Mobility Services (Public Transport, Vehicle Sharing, etc.); Integration of Transportation Systems into Urban Environments; In-Vehicle Audio/Video; In-Vehicle Accessories; Human Factors in Driving Dynamics; Location Based Services and Social, Local, Mobile Applications and Social Media; Map Data and Map Features for Connected Vehicles and ITS; Adoption of Cellular Standards (5G/6G) in Connected Vehicles and ITS; Social Implications, Impact Assessment and Benefits of Connected Vehicles and ITS.
Call for Papers

IEEE Transactions on Human–Machine Systems
Special Issue on:
“Holistic approaches for Human-Vehicle Systems: combining models, interactions and control”

Ground vehicles operate in a complex human–vehicle–road environment involving numerous levels of interaction among drivers, vehicles, and the ambient within which they travel. Human drivers may be “intelligent controllers” that define the intended driving direction and/or operate (totally or partially) autonomous vehicles. To support the development of safe driver-vehicle interactions in an era of increasing automation, methods for modeling and analyzing the contribution of driver performance are critical and essential. This raises interesting challenges associated with the characterization and modeling of human behaviors, particularly with respect to cognition and neuromuscular dynamics, their implication in closed-loop driver–vehicle performance, and their induced modifications brought about by interaction with the surrounding environment. Specifically, holistic approaches are of interest, which aim at efficiently and quantitatively combine different aspects of the human-vehicle interaction in specific application domains.

This special issue focuses on these relevant driver-vehicle interaction topics, with attention paid to the range of vehicles and associated technology currently on the market and emerging in the era of increased automation.

The topics of interest include but are not limited to:

- Modeling and characterization of driver–vehicle interactions
- Human driver modeling: neuromuscular dynamics, skills and learning
- Advanced vehicle control systems with driver-in-the-loop
- Intelligent and cognitive vehicles
- Advanced driver assistance systems (ADAS)
- Modeling and characterization of human drivers’ errors
- Characterization and quantification of driver's capabilities

Important Dates:

Manuscript submission: April 15, 2016
Completion of first round of reviews: July 31, 2016
Revised manuscript submission: September 31, 2016
Notification of final decision: December 15, 2016
Final manuscript submission: January 31, 2017

Paper should be submitted through http://mc.manuscriptcentral.com/thms, with a cover letter that contains the statement: “This manuscript is being submitted to the Special Issue: Modeling, Dynamics, Perception and Control of Human–Vehicle Systems”. For detailed submission information, please refer to “Information for Authors.”

Guest Editors:
Mara Tanelli, Politecnico di Milano, Italy mara.tanelli@polimi.it
Dongpu Cao, Cranfield University, United Kingdom d.cao@cranfield.ac.uk
Rafael Toledo, Universidad Politécnica de Cartagena, Spain rafael.toledo@upct.es
Laura Stanley, Montana State University–Bozeman, United States laura.stanley@ie.montana.edu

All enquiries about the special issue should be sent to mara.tanelli@polimi.it.
The IEEE/IFIP International Workshop on Urban Mobility & Intelligent Transportation Systems (UMITS 2016) will be held in conjunction with the IEEE/IFIP Network Operations and Management Symposium (NOMS 2016) in Istanbul, Turkey, Apr 25, 2016. UIMITs provides a venue for discussing the latest scientific results and practical case studies on Intelligent Transportation Systems (ITS). The workshop is directed at both academic researchers and practicing engineers. In this edition we focus on planning and managing ITS and how to move the technology from the laboratory to the cities. The topics of interest have been carefully selected to provide a comprehensive overview of the most significant issues related to Planning & Managing ITS. Thorough comprehension of urban mobility enables the development of more realistic and sophisticated models for ITS. More sophisticated ITS models enable the development of better strategies for Planning & Managing ITS, which may allow new insights into the application of novel technologies such as Internet of Things, Clouds, Software Defined Networks, Big Data, and Social Networking.

TOPICS OF INTEREST

Authors are invited to submit papers that fall into or are related to one of the areas listed below:

- **PLANNING & MANAGING ITS**
  - Network Management
  - Communication in ITS
  - Vehicular Networks
  - Experience Reports
  - Experimental Testbeds
  - Privacy, Authentication, Reputation for ITS

- **NOVEL TECHNOLOGIES**
  - Clouds, SDN, Social Networks for ITS

- **MODELS FOR ITS**
  - Algorithms for ITS
  - Analytic Formulations
  - Optimization Models
  - Probabilistic Approaches

- **URBAN MOBILITY**
  - Traffic Prediction
  - Mobility Models

- **INTERDISCIPLINARY**
  - Green ITS, Economic, Legal and Regulative Issues

- **APPLICATIONS**
  - Traffic Prediction
  - Probabilistic Approaches
  - Optimization Models
  - Analytic Formulations

- **GREEN ITS, ECONOMIC, LEGAL, AND REGULATIVE ISSUES**
  - Economic
  - Legal
  - Regulatory

- **ALGORITHMS AND ANALYTICAL FORMULATIONS**
  - Algorithms
  - Analytical Formulations

- **SOFTWARE DEFINED NETWORKS, BIG DATA, AND SOCIAL NETWORKING**
  - Applications
  - Big Data
  - Social Networking

PAPER SUBMISSION

All submissions must present original, unpublished research or experiences. Only original papers that have not been published elsewhere can be submitted. Each regular paper must be accompanied by a 75- to 200-word abstract outlining scope and contributions. Papers are limited to 6 pages (including references).

On the other hand, a short paper (fast abstract) is 3 pages long accompanied by a 50- to 75-word abstract stating new or controversial ideas or presenting work in progress. All submissions must be written in English in IEEE 2-column style. Authors should submit their papers via JEMS:


AWARD will be presented to the best UIMITs paper.

PROCEEDINGS

Accepted papers at UIMITs’16 will be included in the conference proceedings and IEEEExplore.

TECHNICAL PROGRAM COMMITTEE

- Ahmet Sekeriğlioğlu (Universidade de Technologie de Compagne, France)
- Albert Levi (Sabanci Universit, Turkey)
- Aravind Murali (Tampere University of Technology, Finland)
- Arne Carneiro Viana (MBRA, France)
- Asif Khan Pathan, (IIIT and SEU, Bangladesh/Islamic University in Madina), KSA
- Andre L. L. Aquino (Universidade Federal de Alagoas, Brazil)
- Andreas Pitalidis, (University of Cyprus, Cyprus)
- Antônio Alfredo Ferreira Loureiro (Universidade Federal de Minas Gerais, Brazil)
- Artur Dziwni (National Laboratory for Scientific Computing/LNCC, Brazil)
- Area Abd Aziz (Universiti Teknologi Petronas, Malaysia)
- Carlos T. Gañafe (Technical University of Valencia, Spain)
- Christoph Sommer (University of Paderborn, Germany)
- Constantinos Antoniou (National Technical University of Athens, Greece)
- Daniel Ludovico Godin (Universidade Federal de São João Del-Rei, Brazil)
- Daniel Maresco (Universidade Federal de Minas Gerais, Brazil)
- Daniel Mose (University of Pittsburgh, USA)
- David Eichhoff (University of Erlangen, Germany)
- Dusan Todorovic (University of Belgrade, Serbia)
- Eduardo Carqueira (Universidade Federal do Para, Brazil)
- Eta Babakak-Jacoff (Middle East Technical University, Turkey)
- Fahmri Ben Abdesslem (SICS, Sweden)
- Fei-Yue Wang (Chinese Academy of Sciences, China)
- Guilherme Augusto Silva Pereira (Universidade Federal de Minas Gerais, Brazil)
- Gustavo Marfia (Universidade do Bologna, Italy)
- Hidaye Tuyolu (Middle East Technical University, Turkey)
- Imre Berck Colakoglu (Istanbul Technical University, Turkey)
- Hongbin Sun (Xi’an Jiaotong University, China)
- Horácio Fernandes (Universidade Federal do Amazonas, Brazil)
- Jack Haddad (Israel Institute of Technology, Israel)
- Jaime Lloret Mauri (Universidad Politècnica de Valencia, Spain)
- Javier Sanchez Medina (Universidad de las Palmas de Gran Canaria, Spain)
- Joaquim Castro Ferreira (Universidade de Aveiro, Portugal)

Jose F. M. Sanches (CEFET-MG, Brazil)
Jose Joel P. C. Rodrigues (Universidade de Beira Interior, Portugal)
Jose Barbolo-Ordinas (Universidad Politècnica de Catalunya, Spain)
Jose Eugenio Narango Hernandez (Universidad Politècnica de Madrid, Spain)
Kashf Akhtar Saleem (King Saud University, Saudi Arabia)
Leonardo Villas (UNICAMP, Brazil)
Leonardo Rocha Dutra (Universidade Federal de São João Del-Rei, Brazil)
Lian Kelher (Mount Allison University, Canada)
Loukas Dimitriou (University of Cyprus, Cyprus)
Luis Filipe Menezes Vieira (Universidade Federal de Minas Gerais, Brazil)
M. Kamal Lalebi-Bosseig (Middle East Technical University, Turkey)
Mansoilo Franco Porto (Universidade Federal de Minas Gerais, Brazil)
Marco Fiore (CRN-IBIL, Italy)
Mario A. Nascimento (University of Alberta, Canada)
Marios Leontas (Frederick University, Cyprus)
Markos Papageorgiou (Technical University of Crete, Greece)
Mehdi Benaouf (Pierre et Marie Curie University, France)
Mujib Sayfuri (Marmara University, Turkey)
Mustafa Goeker (Middle East Technical University, Turkey)
Naia Bouchelou (Université de Versailles St-Quentin-En-Yvelines, France)
Oded Cats (TU Delft, Netherlands)
Ozan Tonguz (Carnegie Mellon University, USA)
Ozgur Oktar (Koc University, Turkey)
Qurban Ali Memon (United Arab Emirates University, UAE)
Peter Steenkiste (Carnegie Mellon University, USA)
Renato Assuncao (Universidade Federal de Minas Gerais, Brazil)
Richard W. Pazzi (University of Ontario, Canada)
Rome Ilide da Silva (Universidade Federal de São João Del-Rei, Brazil)
Susana Sargento (Universidade de Aveiro, Portugal)
Tamer Ahmed (Aalborg University, Denmark)
Vassos Vassiliou (University of Cyprus, Cyprus)
Wagner Meira Jr (Universidade Federal de Minas Gerais, Brazil)
Wantanee Vinyasvatvat (Mahidol University, Thailand)
Yacine Ghallabi-Doudane (University of La Rochelle, France)
Yuan (Michael) Chen (Jiaxing University, China)
Xin Pei (Tsinghua University, China)

ORGANIZING COMMITTEE

Cristiano M. Silva (DTECH/UFSJ, cristiano@ufsj.edu.br)
Jose Marcos S. Nogueira (DCC/UFGM, jmarcos@dcc.ufmg.br)

IMPORTANT DATES

- Paper submission: January, 8, 2016
- Notification of acceptance: January, 30, 2016
- Workshop date: Apr 25, 2016

For more information: http://www.umits-noms2016.dcc.ufmg.br
19th EURO Working Group on Transportation Meeting Call for Papers
September 5-7, 2016, Taskisla Campus, Istanbul Technical University
Taksim, Istanbul, Turkey
www.ewgt2016.itu.edu.tr

Since 1992, the annual meeting of the EURO Working Group on Transportation (EWGT) has been a unique opportunity for attendants to share theoretical and applied research results in the analysis, modeling, control, and management of transportation and logistics systems. The 19th EURO Working Group on Transportation Meeting (EWGT2016) will offer keynote plenary talks; workshops; tutorials; and oral presentations from academics, industry experts, students, and representatives of government agencies to discuss recent methodological developments and application challenges in traffic, transportation, and logistics systems. In conjunction with the motivation of the EURO Working Group on Transportation, the main theme for the conference has been specified as the “Simulation and Optimization of Traffic and Transportation Systems”. As for the previous series, the topics of interest include, but are not limited to, the followings:

- Air transport operations
- Applications of vehicular networks, including ITS
- Advanced communication technologies (V2V, V2I, V2X ..) and automated transportation systems
- Dynamic network modeling and optimization
- Dynamic fleet management
- Simulation and optimization of traffic, transportation, and logistics systems
- Meta-heuristic methods in optimization
- High performance computing in traffic simulation
- Vehicle-routing
- Emergency management
- Human factors, travel behavior and choice modeling
- Decision analysis
- Transportation economics
- Modeling, control, and management of traffic and transportation systems
- Supply chain management
- Transportation systems planning and operations
- Innovative and multi-modal transport
- Impact assessments of transportation networks on safety, efficiency, and environment
- Energy efficiency and emission reduction
- Land use and transport interactions
- Sustainability in transportation planning and traffic engineering
- Big data analytics for travel data
- Planning, design, and operation of transportation networks
- Smart cities and smart mobility

In conjunction with the theme of EWGT2016, leading scientists that have confirmed keynotes are:

- Peter Wagner. Chief Engineer with the Institute of Transport Systems of the German Aerospace Centre (DLR) and Honorary Professor at the Technical University of Berlin, Germany
- Jaume Barceló. Professor Emeritus, Department of Statistics and Operations Research, Universitat Politècnica de Catalunya, UPC-Barcelona Tech, Spain
- Michel Gendreau. Professor of Operations Research at the Department of Applied Mathematics and Industrial Engineering, CIRRELT and MAGI, Ecole Polytechnique, Montréal, Canada
- Mohamed Abdel-Aty. Professor and Chair of the Civil, Environmental and Construction Engineering Department at the University of Central Florida, US

All submitted papers will be peer-reviewed. Accepted and registered full papers will appear in Transportation Research Procedia published by Elsevier.

Selected papers of the conference will be invited to be reconsidered for publication in the theme-based and conference-based special issues of high-impact journals. Authors interested in publishing at the special issues are strongly suggested to target presenting at the relevant special sessions that’ll be held during the conference. Themes of journal special issues are:

- Transportation Research Part C: Emerging Technologies theme-based special issue on “Advances in Modeling, Simulation and Optimization of Dynamic Network Traffic”
- IEEE Intelligent Transportation Systems Magazine conference-based special issue on “High Performance Computing in Simulation and Optimization of Dynamic Transportation Networks”
- Accident Analysis & Prevention conference-based special issue on “Simulation of Traffic Safety in the Era of Advances in Technologies”

The conference is organized by the Transportation Working Group of the Istanbul Technical University, under the patronage of the EU Working Group on Transportation (EWGT), the Association of European Operational Research Societies (EURO), and Istanbul Technical University (ITU).

Stay tuned to ‘http://ewgt2016.itu.edu.tr’ and follow us @EWGT2016 at Twitter to get prompt updates!

Please take into your agenda the deadline for extended abstract submission, January 20, 2016. Please visit ‘http://ewgt2016.itu.edu.tr’ to check important dates for the overall paper evaluation process.
IEEE Intelligent Transportation Systems Society’s
Sponsored Conferences

IEEE Intelligent Vehicles Symposium (IV’16)
June 19-22, 2016
Gothenburg, Sweden
http://www.iv2016.org
Submission due by: January 22, 2016

August 29-31, 2016
Auckland, New Zealand
http://www.mesa2016.org
Submission due by: March 31, 2016

International IEEE Conference on Intelligent Transportation Systems (ITSC2016)
October 02-05, 2016
Rio de Janeiro, Brazil
https://web.fe.up.pt/~ieeeitsc2016/
Submission due by: April 15, 2016

International Conference on Vehicular Electronics and Safety (IEEE ICVES 2016)
http://sites.ieee.org/itss/conference/
Submission due by: To be determined

IEEE International Conference on Service Operations and Logistics, and Informatics (IEEE SOLI 2016)
http://sites.ieee.org/itss/conference/
Submission due by: To be determined
Other Conferences

2016 SAE Battelle CyberAuto Challenge
July 25-29, 2016
Warren, Michigan, USA
http://www.sae.org/events/cyberauto/

International Symposium on Transportation and Traffic Theory - ISTTT
July 24-26, 2017
Northwestern University, Evanston, Illinois, USA
http://sites.northwestern.edu/isttt/
Submission due by: January 31, 2016

NRITS National Rural ITS Conference
October 02-05, 2016
Chattanooga, TN, USA
http://www.nationalruralitsconference.org/
Submission due by: February 5, 2016

IEEE Vehicular Technology Conference: VTC2016-Spring
May 15–18, 2016
Nanjing, China
http://www.ieeevtc.org/vtc2016spring/

IEEE Multi-Conference on Systems and Control
September 19-22, 2016
Buenos Aires, Argentina
http://www.msc2016.org/
Submission due by: April 15, 2016

October 9-14, 2016
Daejeon, Korea
http://www.iros2016.org
Submission due by: March 1, 2016

ITS World Congress 2016
October 10-14, 2016
Melbourne, Australia
http://www.itsworldcongress2016.com
Submission due by: 13 January, 2016

Seminar on Vision for Autonomous Vehicles and Probes
November 8-13, 2016
Schloss Dagstuhl, Germany
http://www.dagstuhl.de/de/programm/kalender/semhp/?semnr=15461
VISIGRAPP 2016: 10th International Joint Conference on Computer Vision, Imaging and Computer Graphic Applications
   February 27-29, 2016
   Rome, Italy
   http://www.visigrapp.org

Intertraffic Amsterdam 2016
   April 5-8, 2016
   Amsterdam, Netherlands
   http://www.intertraffic.com/amsterdam/

SAE 2016 World Congress & Exhibition
   April 12-14, 2016
   Detroit, Michigan, USA
   https://www.sae.org/congress/
   Pre-registration due by: March 23, 2016

IEEE Vehicular Technology Conference (VTC2016-Spring)
   May 15-18, 2016
   Nanjing, China
   http://www.ieeevtc.org/vtc2016spring/

International Conference on Vehicle Technology and Intelligent Systems
   April 23-24, 2016
   Rome, Italy

IEEE International Conference on Robotics and Automation (ICRA 2016)
   May 16-21, 2016
   Stockholm, Sweden
   http://www.icra2016.org

International Conference on Connected Vehicles & Expo (ICCVE 2016)
   September 12-16, 2016
   Seattle, WA, USA
   http://www.iccve.org/
   Submission due by: To be determined
JANUARY 2016 VOLUME 17 NUMBER 1 ITISFG (ISSN 1524-9050)

Editorial .......................................................... 1

SURVEY PAPERS
A Survey on Energy-Efficient Train Operation for Urban Rail Transit .......... X. Yang, X. Li, B. Ning, and T. Tang 2

REGULAR PAPERS
Stochastic Delay Analysis for Train Control Services in Next-Generation High-Speed Railway Communications System ........................................ L. Lei, J. Lu, Y. Jiang, X. Shen, Y. Li, Z. Zhong, and C. Lin 48
Integrated Predictive Control of Freeway Networks Using the Extended Link Transmission Model ................................................................. M. Hajiahmadi, G. S. van de Weg, C. M. J. Tamperé, R. Corthout, A. Hegyi, B. De Schutter, and H. Hellendoorn 65
Fast Traffic Sign Recognition via High-Contrast Region Extraction and Extended Sparse Representation ................................................................. C. Liu, F. Chang, Z. Chen, and D. Liu 79
Information-Theoretic Location Verification System With Directional Antennas for Vehicular Networks ............................................................... M. E. Pivaro Monteiro, J. L. Rebellato, and R. D. Souza 93
Geovisualization of Archived ITS Data-Case Studies ................................ K. Hamad and C. Quiroga 104
Ecological Adaptive Cruise Controller for Plug-In Hybrid Electric Vehicles Using Nonlinear Model Predictive Control .............................................. M. Vajedi and N. L. Azad 113
Bluetooth Traffic Monitoring Systems for Travel Time Estimation on Freeways ................................................................. J. J. Vinagre Díaz, A. B. Rodríguez González, and M. R. Wilby 123
Passenger Journey Destination Estimation From Automated Fare Collection System Data Using Spatial Validation ................................................................. A. A. Nunes, T. Galvão Dias, and J. Falcão e Cunha 133
Sequential FDIA for Autonomous Integrity Monitoring of Navigation Maps on Board Vehicles ................................................................. C. Zinoune, P. Bonnifait, and J. Ibañez-Guzmán 143
Cost Minimization of Charging Stations With Photovoltaics: An Approach With EV Classification ................................................................. W. Tushar, C. Yuen, S. Huang, D. B. Smith, and H. V. Poor 156
Emergency Traffic-Light Control System Design for Intersections Subject to Accidents ................................................................. L. Qi, M. Zhou, and W. Luan 170
Detecting Road Events Using Distributed Data Fusion: Experimental Evaluation for the Icy Roads Case ................................................................. J. Radak, B. Ducourthial, V. Cherfaoui, and S. Bonnet 184

(Contents Continued on Back Cover)
Probabilistic Inference for Occluded and Multiview On-road Vehicle Detection .................................................. C. Wang, Y. Fang, H. Zhao, C. Guo, S. Mita, and H. Zha 215
A Novel Approach for Improved Vehicular Positioning Using Cooperative Map Matching and Dynamic Base Station DGPS Concept .................................................. M. Rohani, D. Gingras, and D. Gruyer 230
Road Slope Aided Vehicle Position Estimation System Based on Sensor Fusion of GPS and Automotive Onboard Sensors ................................................................. K. Jo, M. Lee, and M. Sunwoo 250
A Blind-Zone Detection Method Using a Rear-Mounted Fisheye Camera With Combination of Vehicle Detection Methods ................................................. D. Dooley, B. McGinley, C. Hughes, L. Kilmartin, E. Jones, and M. Glavin 264
Audio Surveillance of Roads: A System for Detecting Anomalous Sounds ................................................................. P. Foggia, N. Petkov, A. Saggese, N. Strisciuglio, and M. Vento 279

SHORT PAPERS
Efficient Lane Detection Based on Spatiotemporal Images ........................................................ S. Jung, J. Youn, and S. Sull 289
Analysis of Taxi Drivers’ Behaviors Within a Battle Between Two Taxi Apps .................................................. B. Leng, H. Du, J. Wang, L. Li, and Z. Xiong 296
Forthcoming papers on IEEE ITS Magazine

A Kind of Novel ITS based on Space-Air-Ground Big-data
GANG XIONG, FENGHUA ZHU, XISONG DONG, HAISHENG FAN, BIN HU, QINGJIE KONG, WENWEN KANG AND TENG TENG

Vision-Based Turning Movement Monitoring: Count, Speed & Waiting Time Estimation
SHOKROLAH SHIRAZI, MOHAMMAD; MORRIS, BRENDAN

Reliable Path Planning for Bus Networks Considering Travel Time Uncertainty
LI, LI; ZHENG, YICHEN; ZHANG, YI

A New e-Bus System Using Two-Way Government Radio Networks
WU, HSIAOKUANG; LIN, SHU HUI; CHEN, CHUNG-YU; CHAN, CHINGYAO; JOU, EMERY

Spherical Coordinates based Methods of Ground Extraction and Objects Segmentation using 3D LiDAR Sensor
HU LIN YIN, XIAOHAN YANG, CHAO HE
Most popular papers on IEEE Transactions on ITS

   Hodge, V.J.; O'Keefe, S.; Weeks, M.; Moulds, A.

   Yisheng Lv; Yanjie Duan; Wenwen Kang; Zhengxi Li; Fei-Yue Wang

   Mukhtar, A.; Likun Xia; Tong Boon Tang

4. Routing in Internet of Vehicles: A Review
   Jiujun Cheng; Junlu Cheng; MengChu Zhou; Fuqiang Liu; Shangce Gao; Cong Liu

5. Looking at Vehicles on the Road: A Survey of Vision-Based Vehicle Detection, Tracking, and Behavior Analysis
   Sivaraman, S.; Trivedi, M.M.

Most popular papers on IEEE ITS Magazine

1. In the Passenger Seat: Investigating Ride Comfort Measures in Autonomous Cars
   Elbanhawi, M.; Simic, M.; Jazar, R.

2. A Tutorial on Graph-Based SLAM
   Grisetti, G.; Kümmerle, R.; Stachniss, C.; Burgard, W.

3. Multimedia Services in Cloud-Based Vehicular Networks
   Ming-Kai Jiau; Shih-Chia Huang; Jenq-Neng Hwang; Vasilakos, A.V.

4. The Impact of Cooperative Perception on Decision Making and Planning of Autonomous Vehicles
   Seong-Woo Kim; Wei Liu; Ang, M.H.; Frazzoli, E.; Rus, D.

5. Experience, Results and Lessons Learned from Automated Driving on Germany's Highways
   Aeberhard, M.; Rauch, S.; Bahram, M.; Tanzmeister, G.; Thomas, J.; Pilat, Y.; Homm, F.; Huber, W.; Kaufmann, N.

Most popular episode on IEEE ITS Podcast

ITS Podcast Episode 21: NOTICE. Traffic Incidents Reporting
Samy El-Tawab
## Officers and Committee Chairs

<table>
<thead>
<tr>
<th>Officers</th>
<th>Committee Chairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>President: Daniel Zeng, U. of Arizona, Tucson, AZ, USA</td>
<td>Brendan Morris</td>
</tr>
<tr>
<td>Past-President: Matt Barth, University of California, Riverside, CA, USA</td>
<td>Wei-Bin Zhang</td>
</tr>
<tr>
<td>VP Admin Activities: Daniel J. Dailey, U. of Washington, Seattle, WA, USA</td>
<td>Daniel J. Dailey</td>
</tr>
<tr>
<td>VP Conference Activities: Meng Lu, Deft U. of Technology, Netherlands</td>
<td>Bin Ning</td>
</tr>
<tr>
<td>VP Financial Activities: Alberto Broggi, VisLab, Parma, Italy</td>
<td>Alberto Broggi</td>
</tr>
<tr>
<td>VP Member Activities: Brendan Morris, University of Nevada, Las Vegas, NV, USA</td>
<td>Ümit Özgüner</td>
</tr>
<tr>
<td>VP Publication Activities: Wei-Bin Zhang, U. of California, Berkeley, CA, USA</td>
<td>Miguel Angel Sotelo, U. of Alcalá, Spain</td>
</tr>
<tr>
<td>VP Technical Activities: Yaobin Chen, Purdue U. Indianapolis, Indiana, USA</td>
<td>Javier Sanchez-Medina, U. Las Palmas de GC, Spain</td>
</tr>
<tr>
<td>VP Educational Activities: Cristina Olaverri-Monreal, Technikum Wien, Austria</td>
<td>Javier Sanchez-Medina, U. Las Palmas de GC, Spain</td>
</tr>
<tr>
<td>Transactions on ITS Editor: Petros Ioannou, U. Southern California, USA</td>
<td></td>
</tr>
<tr>
<td>Transactions on IV Editor: Úmit Özgüner, Ohio State University, USA</td>
<td></td>
</tr>
<tr>
<td>ITS Magazine Editor: Miguel Angel Sotelo, U. of Alcalá, Spain</td>
<td></td>
</tr>
<tr>
<td>Newsletter Editor: Javier Sanchez-Medina, U. Las Palmas de GC, Spain</td>
<td></td>
</tr>
<tr>
<td>ITS Podcast Editor: Javier Sanchez-Medina, U. Las Palmas de GC, Spain</td>
<td></td>
</tr>
</tbody>
</table>

## INTELLIGENT TRANSPORTATION SYSTEMS

http://its.ieee.org

Vol. 18, No. 1 January 2016

Editor: Prof. Javier Sanchez-Medina, javier.sanchez.medina@ieee.org