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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 17000 subscribers. You can download any issue for free, here: http://its.ieee.org

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

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Information for Contributors
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SOCIETY NEWS

From the Editor
Shunsuke Kamijo

Dear readers, we have the first issue of 2017 fully loaded with interesting information.

We have a number of CFPs for IV, ICVES, ITSC and other ITS related conferences coming in 2017. We are publishing transactions on ITSC and IV. Transactions on IV started almost one year ago and the number of publishing papers are getting increased. There is an announcement about the Special Issue on 'High Performance Computing in Simulation and Optimization of Dynamic Transportation Networks' in ITS Magazine. BoG election result will appear in April issue due to the schedule.

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. Please send us your feedback!

It is my pleasure and honour to be here as a new editor of the Newsletter for the first time, succeeding the great work of Professor Javier Sanchez-Medina, the former editor.
MOVING FAST

The road less traveled, made famous by American poet Robert Frost’s 1916 poem “The Road Not Taken,” has become much busier for the majority of global citizens.

According to the United Nations, more than 50 percent of the world’s population lives in urban areas. Today, the most urbanized regions include Northern America (82 per cent living in urban areas in 2014), Latin America and the Caribbean (80 per cent), and Europe (73 per cent). And that number is expected to grow.

Keeping people safe as they travel is an imperative — one that has been the mission of IEEE’s Intelligent Transportation Systems Society for nearly 20 years.

From the early days of loop detectors for traffic light signal management to civilian use of GPS, to tomorrow’s connected cars and advanced automation, the ITS industry not only enhances the quality of life, it increases passenger safety and reduces pollution.

JOIN NOW

Become a member of the IEEE ITS Society and join colleagues from around the world, spanning not just continents and countries but multiple disciplines in the ITS field.

ITS Society Membership includes access to ideas, events and colleagues that are moving transportation in a whole new direction.

The global intelligent transportation system (ITS) market is expected to reach US $66.5 billion by 2024. The usage of ITS to reduce road accidents and increase safety is a major driving force for the ITS market.”

source: www.businesswire.com

RATES

IEEE members receive special prices for Society memberships. If you are not an IEEE member, you may wish to join as an Affiliate.

<table>
<thead>
<tr>
<th>Membership Type</th>
<th>Price</th>
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<tbody>
<tr>
<td>IEEE Professional Member</td>
<td>US $35.00</td>
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<tr>
<td>IEEE Student Member</td>
<td>US $18.00</td>
</tr>
<tr>
<td>Society Affiliate</td>
<td>US $109.50</td>
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</table>

sites.ieee.org/itss

more details on reverse
Publications
- IEEE Transactions on Intelligent Transportation Systems (electronic)
- IEEE Intelligent Transportation Systems Magazine (electronic and print)
- IEEE Transactions on Intelligent Vehicles (discounted)
- IEEE RFID Virtual Journal (electronic)
- ITS Newsletter (electronic)
- ITS Podcast

Conferences
The Intelligent Transportation Systems Society hosts several annual conferences offering opportunities to hear first-hand from colleagues around the world who are advancing the field.
- IEEE Intelligent Transportation Systems Conference (ITSC): annual flagship conference covering all things ITS.
- IEEE Intelligent Vehicles (IV) Symposium: premier forum for intelligent and cooperative vehicle research and applications.
- In addition, a number of more tightly-focused conferences take place each year including:
  - International Conference on Vehicular Electronics and Safety
  - Service Operations and Logistics, and Informatics (SOLI)
  - International Conference on Intelligence and Security Informatics (ISI)
  - International Conference on Megatronic and Embedded Systems and Applications (MESA)
  - Forum on Integrated and Sustainable Transportation Systems (FISTS)

Awards
The ITS Society recognizes the accomplishments of members in all aspects of the field from leadership, research, development and implementation.
- IEEE ITS Institutional Lead Award
- IEEE ITS Outstanding Application Award
- IEEE ITS Outstanding Research Award
- IEEE Lifetime Achievement Award
- IEEE ITSS Best Dissertation Award

Educational Offerings
The Society offers a growing range of courses to develop relevant skills for research and industry.
- A Primer on Security and Privacy in Vehicular Ad-Hoc Networks
- Frontiers in ITS: Transportation 5.0
- Introduction to Vehicular Robotic Modeling with V-REP
- Autonomous Vehicles, Platooning and Driver Personalization

Chapters
Leverage local colleagues to enhance your professional network and continue industry connections outside of annual conferences while attending lectures by experts in the field.

Trending Topics
Stay up to date on emerging ideas including:
- Autonomous and cooperative driving
- Transportation communication
- Transportation management
- Smart Cities Initiative
- Driving assistance programs
- Advanced transportation sensing and analysis

The North America ITS industry is anticipated to reach US $26.29 billion by 2024. Increased government focus on passenger safety and implementation of traffic management projects and initiatives are propelling the demand for intelligent transportation system.”
source: www.businesswire.com

sites.ieee.org/itss
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.

<table>
<thead>
<tr>
<th>IEEE ITS Outstanding Research</th>
<th>Matthew Barth, Center for Environmental Research and Technology (CE-CERT)</th>
</tr>
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<tbody>
<tr>
<td>University of California, Riverside</td>
<td></td>
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<tr>
<td>Research Area and Emphasis:</td>
<td>Pioneering research in environmentally-focused Intelligent Transportation Systems, with the goal of reducing both criteria pollutant and greenhouse gas emissions, as well as reducing transportation-based fuel consumption.</td>
</tr>
</tbody>
</table>
| Contributions: | - Development of microscale transportation/emissions modeling methods and tools  
- Design of specific ITS applications and techniques that are aimed at reducing emissions and fuel consumption  
- Eco-Routing Navigation Systems, which aim to determine the minimum fuel consumption/emissions route between vehicle trip origins and destinations  
- Dynamic Eco-Driving Systems, which provide real-time advice to drivers so that they can adjust their driving actions to save fuel and reduce emissions |

<table>
<thead>
<tr>
<th>IEEE ITS Outstanding Application</th>
<th>KITTI Benchmark and Bertha Autonomous Vehicle</th>
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<tbody>
<tr>
<td>Team Lead: Christoph Stiller, Karlsruhe Institute of Technology</td>
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<tr>
<td>Research Area and Emphasis:</td>
<td>Cooperative Automated Vehicles</td>
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</table>
| Contributions: | - Created standard benchmark dataset for vehicular vision assessment  
- Facilitated vision innovation in vehicular environment and consistent comparison between algorithms  
- Systematic development of novel environmental perception  
- Fully autonomous drive from Mannheim to Pforzheim using low-cost vision sensors for navigation |
2016 IEEE ITSS Best Ph.D. Dissertation Award

The prestigious IEEE ITSS Best Ph.D. Dissertation Award is presented 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.

<table>
<thead>
<tr>
<th><strong>FIRST PRIZE</strong></th>
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<tr>
<td><strong>José Ramón D. Frejo</strong>, University of Seville</td>
<td>Advisor: Eduardo Fernandez Camacho</td>
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<tr>
<td><strong>Dissertation Title</strong>: Model Predictive Control for Freeway Traffic Networks</td>
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<tr>
<td>Contributions:</td>
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<tr>
<td>• Model predictive control techniques applicable to real, large traffic networks</td>
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<tr>
<td>• Proposed and evaluated distributed- and hybrid-MPC algorithms</td>
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<tr>
<td>• Macroscopic model for reversible lanes and online controllers for operation</td>
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<tr>
<td>Current Position: Interim Instructor at University of Seville</td>
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<tr>
<th><strong>SECOND PRIZE</strong></th>
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<tr>
<td><strong>Matthias Schreier</strong>, University: Technische Universität Darmstadt</td>
<td>Advisors: Jürgen Adamy</td>
<td></td>
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<tr>
<td><strong>Dissertation Title</strong>: Generic Model Predictive Control Framework for Advanced Driver Assistance Systems</td>
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<tr>
<td>Contributions:</td>
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<tr>
<td>• Novel approach to grid mapping and tracking in dynamic environments</td>
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<tr>
<td>• Novel driving environment representation by Parametric Free Space Maps</td>
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<tr>
<td>• Novel method for long-term trajectory prediction and criticality assessment</td>
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<td>• Co-development of the driver assistance system PRORETA 3 for integrated driving safety and maneuver-based, partially automated driving in cooperation with the Continental AG</td>
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<td>Current Position: Continental AG</td>
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<th><strong>SECOND PRIZE</strong></th>
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<td><strong>Mohammad Shokrolah Shirazi</strong>, University of Nevada, Las Vegas</td>
<td>Advisor: Brendan Morris</td>
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<tr>
<td><strong>Dissertation Title</strong>: Vision-based Intersection Monitoring: Behavior Analysis and Safety Issues</td>
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<tr>
<td>Contributions:</td>
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<tr>
<td>• Proposed vision-based method for real-time intersection data collection</td>
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<tr>
<td>• Developed intersection tracking system for pedestrian behavior and vehicular queue analysis.</td>
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<tr>
<td>• Developed safety quantification technique for intersections using tracking</td>
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<tr>
<td>Current Position: Visiting Assistant Professor at Cleveland State University</td>
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2016 ITSS Lifetime Achievement Award

The ITSS Lifetime Achievement Award recognizes the exemplary contributions to Intelligent Transportation over a career. The award honors technical contributions and significance to the ITS field of our predecessors.

The 2016 Lifetime Achievement Award recipient is Ernst D. Dickmanns. Dr. Dickmanns was nominated by Hans-Joachim Wünsche of the University of Munich to celebrate his “pioneering work in the field of autonomous vehicles”.

Ernst Dickmanns started his career as an Aerospace engineering with the German Aero-space research and Test Organization before becoming a Professor of Control Engineering at the University of Bendeswehr, Munich. He has been a true pioneer for autonomous vehicles. Some highlights include developing Hardware-in-the-Loop simulation for real-time machine vision for ground vehicles. He expanded beyond simulation to show that, even with limited computing power, real-time computer vision could be used to control a physical system. This led to the “VaMoRs” instrumented commercial van tested on unopened stretch of autobahn in 1986-87 and demonstrating 20km autonomous driving @ 96kph with only a single black and white camera. He developed the theory behind the “4-D approach to real-time vision” to combine 3D space and time which helped push the European project Prometheus toward vision.

Ultimately, the work of Dickmanns has demonstrated amazing feats of engineering and control and inspired much of the self-driving research that is in the news today.
2016 IEEE Transportation Technologies Award

The ITS Society was also in the news with the award of the prestigious IEEE Transportation Technologies Award to Petros Ioannou; the Editor-in-Chief of the IEEE Transactions on ITS. The award was presented on November 3, 2016 at the 2016 Intelligent Transportation Systems Conference Gala Dinner in Rio De Janeiro, Brazil by IEEE President Barry Schoop. The IEEE Transportation Technologies Award is designated for advances in technologies within the fields of interest to the IEEE as applied in transportation systems. The award is sponsored by a number of IEEE societies (IEEE Industry Applications Society, IEEE Industrial Electronics Society, IEEE Intelligent Transportation Systems Society, IEEE Microwave Theory and Techniques Society, IEEE Power Electronics Society, IEEE Power & Energy Society, IEEE Vehicular Technology Society) which makes us proud to have Dr. Ioannou as an active member in the ITS Society.

The pioneering innovations of Petros Ioannou have been instrumental in making adaptive cruise control (ACC) a practical reality and spurring its commercial adoption by the automotive industry. Using forward-looking sensors such as radar, ACC systems automatically adjust a vehicle’s speed to maintain a safe driving distance based on vehicles ahead of it. Unique to Ioannou’s work was implementing a time-headway approach to vehicle spacing instead of the popular belief of using vehicle-to-vehicle communications. By avoiding the complications of vehicle-to-vehicle communications, manufacturers such as Ford were able to bring ACC technology to market quickly. Ioannou’s ACC systems also provide smoother acceleration and speed response, which have demonstrated positive effects on traffic flow, fuel economy, and the environment.

An IEEE Fellow, Ioannou is a professor with the University of Southern California, Director of the Center for Advanced Transportation Technologies, and Associate Director of Research of the University Transportation Center METRANs, Los Angeles, CA, USA.
ITS Podcast New Episodes and Information

Please, circulate this!

**ITS Podcast Episode 38: Vision-Based Turning Movement Monitoring: Count, Speed & Waiting Time Estimation**

We start the new year of 2017 with a very special interview with Professor Brandon Morris from University of Nevada, LasVegas and Dr. Shirazi from Cleveland State university who have together published an article titled “Vision-Based Turning Movement Monitoring: Count, Speed & Waiting Time Estimation” at the IEEE Intelligent Transportation Systems Magazine. The interview is conducted by one of the very dedicated volunteers Dr. Ansar Yasar, a professor at Hasselt University.

We also have a review done by Dr Haluk Eren from Firat University on a book titled: Mobile Electric Vehicles Online Charging and Discharging (Wireless Networks), By Miao Wang, Ran Zhang, and Xuemin (Sherman) Shen, Springer Press, 2016,

Adding to all those mentioned above is our regular news mini-section which will be related to the topic of the interview.
Podcast link: http://itsp.cicei.com/?p=967

**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.
The IEEE Intelligent Vehicle Symposium (IV) is one of the major annual conferences of the IEEE Intelligent Transportation Systems Society. IV 2017 will be held in Redondo Beach, California, USA at the Crown Plaza Hotel right across the street from the Redondo Beach Marina and Pier with the blue Pacific Ocean a block away. In this beautiful setting, IV 2017 welcomes articles in the field of Intelligent Vehicles dealing with new developments in theory and applications, vehicle technologies and demonstrations. It also welcomes proposals for workshops and tutorial sessions to be offered the day before the symposium starts namely June 11, 2017. The traditional format of IV which makes it unique involves a single oral paper presentation session with subsequent parallel poster sessions where each poster paper is orally presented in a brief single slide in order to attract attention and motivate informal discussions. All accepted papers will be included in the proceedings. The technical areas include but are not limited to the following:

- Connected and probe Vehicles
- Automated Vehicles with and without pilot/driver
- Partial Vehicle Automation
- Vehicle-to-Vehicle and Vehicle-to-Infrastructure communications
- Driver monitoring
- Driver Human factors and Personalization
- Electric Vehicles
- Hybrid Vehicles
- Vehicle dynamics and control
- Lane change and merging
- Commercial Vehicles
- Vehicle Emissions and environmental impacts
- Sensing, detection, and actuation
- Advanced vehicle safety systems
- Driver and traveler support systems
- Vision and environment perception
- Vehicle localization and autonomous navigation
- Cognition and Control
- Legal Issues

In the tradition of successful IEEE ITS Conferences, only the highest quality papers will be accepted through an on-line peer review process. The final version of the accepted papers will be included in the Conference proceedings only after at least one author officially registers and presents the paper at the Conference.

**Important Dates**

- Full-paper submission deadline: January 16, 2017
- **NOTE: No extensions will be granted.**
- Workshop/Tutorial deadline: **December 22, 2016 No extension will be granted**
- Notification of acceptance: February 28, 2017
- Final paper submission deadline: March 31, 2017

**Special Issue of IEEE Transactions on Intelligent Vehicles**

High quality papers will be recommended for consideration in the new *IEEE Transactions on Intelligent Vehicles*. Authors will be asked to revise their papers according to the standards of the Transactions, which will be subjected to the Transactions’ review process.
Call for Papers

IMPOTANT DATES

Regular / special session paper
Full-paper submission: March 15, 2017
Notification of acceptance: June 1, 2017
Camera-ready submission: July 1, 2017

Workshop
Proposal submission: April 15, 2017
Paper submission: June 30, 2017

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CONTACT US

WEB: http://www.itsc2017.org
Mail: itsc2017@ieee.org

SCOPE

The Intelligent Transportation Systems Conference is the annual flagship conference of the IEEE Intelligent Transportation Systems Society. This conference 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. ITSC 2017 especially invites and encourages prospective authors to share their work, findings, perspectives and developments, to mark 20 years of IEEE Intelligent Transportation Systems Conference.

TOPICS

Original contributions are solicited in all areas pertinent to Intelligent Transportation Systems. Topics include, but are not limited to:

- Autonomous Driving
- Connected Car
- Big Data and Data Driven Innovation
- Probe Information Systems
- Cooperative Techniques and Systems
- Pedestrian Recognition
- Vehicle Localization
- Transportation Networks
- Intelligent Logistics
- Intermodal Freight
- 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
- Emissions, Noise, Environment
- Management of Exceptional Events: Incidents and Evacuation
- Commercial Vehicle Operations
- Sensing, Detectors and Actuators
- Communications in ITS
- Intelligent Vehicles
- Vision, and Environment Perception
- Electric Vehicles
- Electronic Payment Systems
- Modeling, Control and Simulation
- Traffic Theory for ITS
- Human Factors, Travel Behavior
- ITS Field Tests and Implementation
- Driver and Traveler Support Systems
- Pedestrian Navigation

PAPER SUBMISSION

Prospective authors are required to submit their manuscripts electrically through EDAS (https://www.edas.info/). Submitted papers shall not exceed six pages as a pdf file in IEEE two column format. All presented papers will be published by the IEEE and included in IEEEXplore. See more detailed information at the conference website to prepare your paper.

Technical Sponsored by:
IEEE ITS Society, IEEE ITS Society Tokyo chapter,
IEEE ITS Society Nagoya chapter

In Cooperation with: IEICE Technical Committee on ITS
The 2017 IEEE International Conference on Vehicular Electronics and Safety (ICVES’17) is an annual forum sponsored by the IEEE Intelligent Transport Systems (ITS) Society. It brings together researchers and practitioners to discuss research and applications. ICVES’17 solicits papers dealing with any aspects of vehicle electronics and vehicle safety.

Organizing Committee:

General Chair Cristina Olaverri-Monreal, UAS Technikum Wien, Austria
Program Chair Javier J. Sanchez-Medina, ULPGC, Spain
Senior Advisory Committee Matthew Barth, Mohan Trivedi, Christoph Stiller
Registrations Chair Fernando Garcia, University Carlos III, Madrid, Spain
Publications Chair David Martin Gomez, University Carlos III, Madrid, Spain

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

- Intelligent Vehicles
- Dynamic Programming
- Global Positioning Systems
- Trajectory Planning
- Vehicle Dynamics
- Active and Passive Safety Systems
- Telematics
- Vehicular Power Networks
- X-By Wire Technology
- System-On-a-Chip
- Vehicular Sensor
- Vehicle Bus Systems
- On-Vehicle Sensor Networks
- Electro Magnetic Compatibility
- Inter-Vehicular Communication
- Vehicle Testing
- Navigation and Localization Systems
- Vehicular Measurement Technology
- Vehicular Signal Processing
- Micro-electromechanical Systems
- Computer Vision
- Vehicle/Engine Control
- Driver Assistance and Warning Systems
- Adaptive Cruise Control Systems
- Pattern Recognition for Vehicles
- Energy Consumption
- Embedded Operation Systems

Paper Submission Complete manuscripts in PDF format must be electronically submitted for peer-review in IEEE standard format. Detailed submission instructions can be found through the conference website. 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.

Important Dates:
- Full paper submission date: February 15, 2017
- Notification of acceptance: April 15, 2017
- Camera ready paper submission date: May 1, 2017

Please visit the conference website at http://www.ieee-icves2017.org and follow us in Twitter: @ieee_icves2017

Further info and questions at ieee.icves2017@gmail.com
The 2017 IEEE International Conference on Service Operations and Logistics, and Informatics will be held on September 18-20, 2017, in Bari, Italy. This conference will provide a remarkable opportunity for the academic and industrial communities in the areas of Service Operations, Logistics, and Informatics, to address new challenges and share solutions, and discuss future research directions. The specific objectives of the modern Logistics and Transportation Challenges are ‘smart, green and integrated services’ to achieve planning, scheduling and transport systems that are resource-efficient, climate- and environmentally-friendly, safe and seamless for the benefit of citizens, economy and society. Moreover, the increasing complexity of logistic systems, modelled as systems of systems, and the rapid advancements of Information and Communication Technologies require the development of innovative models, control and optimization approaches and lead to the definition of novel problems with respect to the related literature.

Technical topics of the conference include but are not limited to:

- Performance evaluation of new hardware and software technologies to support smart logistics systems.
- Planning, scheduling and coordination problems arising from the implementation of new hardware, software or data architectures.
- Impact of novel automation, information and data architectures on the design of logistics systems and supply chains.
- Innovate interfacing of hardware, software and data resources to support smart logistics.
- Intelligent transportation and distribution systems: theory and application.
- Management information systems in logistics.
- System-level approaches to cooperative logistics.
- Automatic and intelligent control applications in logistics systems at the factory, warehouse, transportation or supply chain levels.
- Normative, legal, security and privacy issues in logistics and their impact on logistics system design and control.
- Intra-factory logistics and material handling for manufacturing and production systems.
- Supply chains.
- Warehouses, distribution centres, and transport terminals.
- Freight transportation systems (seaports, railroads, trucking systems, package express).
- Smart logistics for smart cities.
- Automated and Internet-based Workflow Management Systems.

The conference theme is **Optimization and Control Approaches in Transportation and Logistic Systems.**

**PAPER SUBMISSION**

Complete manuscripts must be electronically submitted through the conference website [http://dei.poliba.it/soli2017](http://dei.poliba.it/soli2017). Submitted manuscripts should be within six (6) pages in IEEE two-column format, including figures, tables, and references. Please use the templates at [Manuscript Templates for IEEE Conference Proceedings](http://www.ieee.org) from the conference website to prepare your paper.
FAST-zero ’17

4th International Symposium on
Future Active Safety Technology
Toward zero traffic accidents

Introduction
FAST-zero’17 will be held in Nara, a historical place and ancient capital of Japan after the successful 3rd symposium in Gothenburg, Sweden. Following the tradition of FAST-zero symposia, we will bring together researchers and engineers from industry and academia to present the current state-of-the art and progress in research and development of active safety technologies.

Innovation in the field of active safety is the key driving force towards the ultimate goal of realizing zero traffic accidents. Researchers around the world have been investigating methods for active safety to reduce and possibly eliminate the number of traffic accidents as well as road fatalities. Especially, automated and connected vehicles have the potential to enhance safety through new sensors, dynamic map, artificial intelligence and other technologies that have experienced a great improvement in the last years. The organizers are looking forward to your contribution and to seeing you at FAST-zero’17.

Organized by
FAST-zero’17 Organizing Committee of the Society of the Automotive Engineers of Japan, Inc. (JSAE)

In Association with
- International Federation of Automotive Engineering Societies (FISITA)
- International Association of Traffic and Safety Sciences (IATSS)
- International Federation of Automatic Control, Technical Committee on Automotive Control (IFAC)
- IEEE-Intelligent Transportation Systems Society (ITSS)
- ITS-Japan
- Japan Society of Mechanical Engineers (JSME)
- Nara Prefecture
- Society of Instrument and Control Engineers (SICE)

Call for Papers
Authors intending to present a paper at the FAST-zero ’17 symposium are invited to submit an extended abstract in English, with a length of approximately 1000 words. The extended abstract should clearly reflect the contents of the paper, and should not exceed 2 pages of A4 size (including figures). The extended abstract must be accompanied by the following information:
1. Title of paper
2. Name of author(s)
3. Affiliation(s)
4. Symposium Topics (up to 3 - see list of topics)
5. Abstract (approx. 1000 words, including figures)
6. Corresponding Author
   Name, Affiliation, Complete mailing address, E-mail address, Telephone number / Fax number

For authors who wish to publish their research works in international journals, we recommend the authors submit the revised manuscripts to “International Journal of Automotive Engineering (IJAEE)” published by JSAE. The peer review process will proceed after the symposium.

Important Dates
Deadline for abstracts: November 25, 2016
Notification of acceptance: February 28, 2017
Deadline for full papers: May 19, 2017
Deadline for author registration: May 19, 2017
Symposium Topics

FAST-zero’17 topics will cover the wide range of active safety technology topics including but not limited to:

- On-Board Sensing Active Safety System
- Autonomous Driving Technology & Driver Assistance Systems
- Vehicle Dynamics Control
- Vehicular Sensors and Environment Perception
- Communication-Based Active Safety System
- Connected Vehicles & Cooperative Driver Assistance System
- ITS and ICT for Safety Applications
- Driver Characteristics and Human Factor
- Driver Monitoring
- Driver Behavior Modeling
- Driver Assessment and Training
- Cooperation between Driver and Assistance Systems
- Human Machine Interface
- Active Safety Testing Method and Assessment
- Safety Impact Assessment of Active Safety Devices
- Driving Simulator
- Modeling and Simulation
- Field Operational Test
- Other Related Topics on Active Safety

Official Language for Papers & Presentations

The official language of the symposium for both paper and presentation is English. Oral presentation will be made in parallel sessions during the symposium. Presentation will be limited to 25 minutes, including a 10-minute question-and-answer session. All contributed papers will be published in the FAST-zero’17 proceedings.

Paper Submission

Prospective authors are requested to submit an extended abstract in English, describing the problem definition, method and results expected or obtained. This should include figures and tables and is limited to two pages (A4) and approximately 1,000 words. PDF format is preferable. Authors should pre-register on the symposium website in order to submit an extended summary. The submitted summaries will be reviewed by the international scientific committee. Successful authors will be required to submit a full paper, limited to six pages.

Paper Submission website: http://www.fast-zero17.info/

Awards and Journal Publication

Best papers will be awarded, nominated by a panel of the FAST-zero international scientific committee.

Outstanding papers selected by the committee will be recommended for publication in IJAE of JSAE.

Registration

All delegates, including those presenting papers, are expected to register for the symposium. Registration includes a USB memory of the symposium proceedings, book of abstracts, attendance at all plenary and technical sessions, refreshments, reception and FAST-zero party.

Symposium Venue

The symposium will be held at Nara Kasugano International Forum, in Nara Park. The Forum can be reached by bus about 10 minutes from Kintetsu-Nara or JR-Nara station.

Address: Kasugano-cho, Nara-city, Nara 630-8212, Japan

Correspondence

All inquiries and proposals concerning the symposium should be addressed to FAST-zero’17 Secretariat:

E-mail: fast-zero17@jbtcom.co.jp
COMMUNICATION PROTOCOLS

Vehicular Networks

Vehicle Environment Perception

Traffic Theory, Modeling, and Simulation

Big Data Analytics for Intelligent Transportation

Intelligent Infrastructure and Guidance Systems

Security and Safety

V2V, V2I, V2X

Vehicular Cloud Computing

Traffic Theory, Modeling, and Simulation

Big Data and Vehicle Analytics

Autonomous Vehicles and Automated Driving

Green, Sustainable Transportation

Systems Modeling and Simulation

Vehicular Networks

Mobility and the Internet of Vehicles

Driver Behavior Analysis
Call for Papers
IEEE Transactions on Intelligent Vehicles

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 2017, 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)
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: December 30, 2016 February 28, 2017
Publication: Winter 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/itsm". 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. Ljubo Vlacic at 'l.vlacic@griffith.edu.au'.
IEEE Intelligent Transportation Systems Society's Sponsored Conferences

IEEE Intelligent Vehicles Symposium (IV’17)
Jun 11-14, 2017
Redondo Beach, CA, USA
http://iv2017.org/
Submission due by: Jan 16, 2017; No extension will be granted.

August 6-9
Cleveland, Ohio
https://www.asme.org/events/idetccie
Submission due by: Feb 10, 2017

International IEEE Conference on Intelligent Transportation Systems (ITSC2017)
October 16-19, 2017
Yokohama, Japan
http://www.itsc2017.org/
Submission due by: March 15, 2017

International Conference on Vehicular Electronics and Safety (IEEE ICVES 2017)
June 27-29, 2017
Vienna, Austria
http://www.ieee-icves2017.org/
Submission due by: February 15, 2017

IEEE International Conference on Service Operations and Logistics, and Informatics (IEEE SOLI 2017)
September 18-20, 2017
Bari, Italy
http://dei.poliba.it/soli2017/
Submission due by: January 15, 2017

IEEE Forum on Integrated and Sustainable Transportation Systems (FISTS 2016)
Beijing, China
http://www.ieefists.org/
Submission due for the next event: To be determined

The 3rd International Conference on Universal Village (UV 2016)
Nagoya, Japan
http://www.universal-village.org/
Submission due for the next event: To be determined

The 6th IEEE International Conference on Advanced Logistics and Transport (IEEE ICALT’2017)
July 24-27, 2017
Bali, Indonesia
http://icalt.org/2017/
Submission due by: January 31, 2017

The 2016 IEEE International Conference on Intelligent Rail Transportation (IEEE ICIRT 2016)
Birmingham, UK
http://www.ieee-icirt.com/
Submission due for the next event: To be determined

Other Conferences

2017 SAE Battelle CyberAuto Challenge
August 06-11, 2017
Warren, Michigan, USA
http://www.sae.org/events/cyberauto/

The 22nd International Symposium on Transportation and Traffic Theory (ISTTT22)
July 24-26, 2017
Northwestern University, Evanston, Illinois, USA
http://sites.northwestern.edu/isttt/

NRITS National Rural ITS Conference
Chattanooga, TN, USA
http://www.nationalruralitsconference.org/
Submission due for the next event: To be determined
IEEE 85th Vehicular Technology Conference: VTC2017-Spring
   June 4-7, 2017
   Sydney, Australia
   http://ieeevt.org/vtc2017spring/

IEEE Multi-Conference on Systems and Control (MSC 2016)
   Buenos Aires, Argentina
   http://www.msc2016.org/
   Submission due for the next event: To be determined

IEEE/RSJ International Conference on Intelligent Robots and Systems
   (IROS 2017)
   September 24-28, 2017
   Vancouver, BC, Canada
   http://www.iros2017.org
   Submission due by: March 01, 2017

ITS World Congress 2017
   October 29-November 2, 2017
   Montreal, Canada
   http://itsworldcongress2017.org/

Seminars and Dagstuhl Perspectives Workshops 2017
   Schloss Dagstuhl, Germany
   https://www.dagstuhl.de/en/program/calendar/?dag_type=12&dag_year=2017

VISIGRAPP 2017: 12th International Joint Conference on Computer Vision,
   Imaging and Computer Graphics Theory and Applications
   February 27 - March 01, 2017
   Porto, Portugal
   http://www.visigrapp.org

The 5th International Conference on Connected Vehicles & Expo (ICCVE
   2016)
   Seattle, WA, USA
   http://www.iccve.org/
   Submission due for the next event: To be determined

Intertraffic Amsterdam 2018
   April 5-8, 2016
   Amsterdam, Netherlands
   http://www.intertraffic.com/amsterdam/

SAE 2017 World Congress & Exhibition
   April 04-06, 2017
   Detroit, Michigan, USA
3rd International Conference on Vehicle Technology and Intelligent Transport Systems
April 22-24, 2017
Porto, Portugal
http://www.vehits.org

IEEE International Conference on Robotics and Automation (ICRA 2017)
May 29-June 03, 2017
Singapore
http://icra2017.org

19th International Conference on Image Analysis and Processing (ICIAP 2017)
September 11-15, 2017
Catania, Italy
http://www.iciap2017.com/
Submission due by: March 31, 2017
Forthcoming papers on IEEE Transactions on ITS

Improved Rule Installation for Real-time Query Service in Software-Defined Internet of Vehicles  
ZHOU, MENGCHU; WANG, XIN; WANG, CHENG; ZHANG, JUNQI; JIANG, CHANGJUN  
http://dx.doi.org/10.1109/TITS.2016.2543600

Code-Aided Channel Tracking and Decoding over Sparse Fast-Fading Multipath Channels with Application to Train Backbone Networks  
ZHOU, MENGCHU; KHALILI, SHAHROUZ; FENG, JIANGHUA; SIMEONE, OSVALDO; TANG, JUN; WEN, ZHENG; HAIMOVICH, ALEXANDER  
http://dx.doi.org/10.1109/TITS.2016.2549544

Robust Stereo Data Cost With a Learning Strategy  
JEON, JAE; NGUYEN, VINH; NGUYEN, HAU  
http://dx.doi.org/10.1109/TITS.2016.2563661

Measuring route diversity for urban rail transit networks: A case study of the Beijing metro network  
CHEN, ANTHONY; YANG, XIN; NING, BIN; TANG, TAO  
http://dx.doi.org/10.1109/TITS.2016.2566801

A Unified Framework for Concurrent Pedestrian and Cyclist Detection  
LI, XIAOFEI; LI, LINGXI; FLOHR, FABIAN; WANG, JIANQIANG; XIONG, HUI; BERNHARD, MORYS; PAN, SHUYUE; GAVRILA, DARIU; LI, KEQIANG  
http://dx.doi.org/10.1109/TITS.2016.2567418

An optimal estimation approach for the calibration of connected vehicles in a mixed traffic environment  
UKKUSURI, SATISH; ZHU, FENG  
http://dx.doi.org/10.1109/TITS.2016.2568759

Rapid Localization and Extraction of Street Light Poles in Mobile LiDAR Point Clouds: A Supervoxel-based Approach  
WEN, CHENGLU; WU, FAN; GUO, YULAN; WANG, JINGJING; YU, YONGTAO; WANG, CHENG; LI, JONATHAN  
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Model Predictive Control for Freeway Networks Based on Multi-Class Traffic Flow and Emission Models  
LIU, SHUAI; HELLENDORRN, HANS; DE SCHUTTER, BART  
http://dx.doi.org/10.1109/TITS.2016.2573306

Visual Monitoring of Driver and Passenger Control Panel Interactions  
PERRETT, TOBY; MIRMEHDI, MAJID; DIAS, EDUARDO  
http://dx.doi.org/10.1109/TITS.2016.2567540
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Increased Traffic Flow through Node-Based Bottleneck Prediction and V2X Communication
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http://dx.doi.org/10.1109/TITS.2016.2573292

Vision-Based Positioning for Internet-of-Vehicles
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Space-aware modeling of two-phase electric charging stations
COSTA, LUIS; PINTO, FABIO; MENASCHÉ, DANIEL; AMORIM, MARCELO
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http://dx.doi.org/10.1109/TITS.2016.2582513

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http://dx.doi.org/10.1109/TITS.2016.2580058

**Towards Detection of Bus Driver Fatigue Based on Robust Visual Analysis of Eye State**  
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http://dx.doi.org/10.1109/TITS.2016.2586104
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Detector of Electrical Discontinuity of Rails in Double-Track Railway Lines: Electronic System and Measurement Methodology
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http://dx.doi.org/10.1109/TITS.2016.2585342

Accurate Detection and Recognition of Dirty Vehicle Plate Numbers for High Speed Applications
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http://dx.doi.org/10.1109/TITS.2016.2586520

Automated and Cooperative Vehicle Merging at Highway On-Ramps
MALIKOPOULOS, ANDREAS; RIOS-TORRES, JACKELINE
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http://dx.doi.org/10.1109/TITS.2016.2590579

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YOUSSEF, MOUSTAFA; MOHAMED, REHAM; ALY, HEBA  
http://dx.doi.org/10.1109/TITS.2016.2591958

**A Probabilistic Prediction Model for the Safety Assessment of HDVS Under Complex Driving Environments**

HE, YI; YAN, XINPING; CHUE, DUANFENG; LU, XIAO-YUN; WU, CHAOZHONG  
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TSENG, VINCENT SHIN-MU; LU, ERIC HSUEH-CHAN; CHEN, HUAN-SHENG  
http://dx.doi.org/10.1109/TITS.2016.2593707

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http://dx.doi.org/10.1109/TITS.2016.2594479

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WANG, YINHAI; KE, RUIMIN; LI, ZHIBIN; KIM, SUNG; ASH, JOHN; CUI, ZHIYONG  
http://dx.doi.org/10.1109/TITS.2016.2595526

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KIM, EUNTAI; BAEK, JEONGHYUN; KIM, JISU  
http://dx.doi.org/10.1109/TITS.2016.2594816

**Graphical Human-Machine Interactive Approach for Integrated Bus Transit Scheduling: Lessons Gained from a Large Bus Company**

CEDER, AVISHAI; LIU, TAO; MA, JIHUI; GUAN, WEI; ZHOU, LIJIE  
http://dx.doi.org/10.1109/TITS.2016.2604392
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