

# INTELLIGENT TRANSPORTATION SYSTEMS



http://its.ieee.org

## **IEEE ITS SOCIETY**

# **NEWSLETTER**

Vol. 18, No. 3 July 2016

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

## In This Issue

## **Society News and Announcements**

Message from the Editor	. 2
Message from the IEEE ITS President	. 3
Join the IEEE ITS Society	
2016 IEEE ITS Award Call for Nominations	. 7
2016 IEEE ITSS Best Ph.D. Dissertation Award Call for Application	
IEEE ITSS Educational Activities Website launching!	
ITS Podcast New Episodes and Information	
Job Announcement.	
Conferences and Call for Papers	
IEEE ITSC2016 Workshops - CFP	12
IEEE Transactions on Intelligent Vehicles — CFP	12
S. I. on "Autonomous Cooperative Driving" — CFP IEEE ITS Mag	
S. I. on "High Performance Computing in Simulation and Optimization	
of Dynamic Transportation Networks" — CFP IEEE ITS Mag	
, , , , , , , , , , , , , , , , , , ,	
1st EAI Int. Conf. on Security & Privacy in Vehicular Networks — CFP	16
Workshop on ITS and Smart Mobility—Call for Ext. Abstracts	
Special Session on Intelligent Cooperative Driving, and Autonomous	
Connected Vehicles (ICD & ACV 2016) — CFP.	20
Conference Calendar	25
Forthcoming papers at Transactions on ITS	
Forthcoming papers at ITS Magazine	
Most popular papers/episode at T-ITS, ITS Mag. and ITS Podcast	
Officers and Committee Chairs	

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### **Associate Editors**

Conferences, Workshops, and Journals
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## **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 <a href="mailto:javier.sanchez.medina@ieee.org">javier.sanchez.medina@ieee.org</a>. You can also use this Google form: <a href="mailto:http://goo.gl/forms/xpgl8WLt9F">http://goo.gl/forms/xpgl8WLt9F</a>

## **SOCIETY NEWS**

# From the Editor Javier Sanchez-Medina

Dear readers.

There is a lot happening in our society and our field these days. Amazing news everyday about intelligent vehicles and much more! We are living an exciting moment for Intelligent Transportation, that is for sure!

Here you have a new issue of the ITSS Newsletter with plenty of interesting stuff for our community! We have a few interesting announcements including a job call. Also, among a number of appealing CFPs let's highlight that there is still a few days for you to submit a workshop paper to our IEEE ITSC2016 flagship conference in Rio, Brazil. It will be a first time in South America for this event., so it is your last call for making history with us!

Please, remember we are all ears to your suggestions! We are eager to know what are we doing well and what potential contents would be useful for our community! You can use our <u>Google</u> Form for that or just send me a personal message to my address above! Happy Summer!



# **IEEE ITS Society President Message**



# ITS and BIG DATA Daniel Zeng

Dear IEEE ITS Society members:

First, I would like to make a couple of announcements of relevance to the general membership.

After consulting with ITS Society Executive Committee and Board of Governors (BOG) colleagues, I have appointed Professor Azim Eskandarian from Virginia Tech as the interim Vice President for Administrative Activities. Azim served on the BOG a couple of years back and has made a lot of contributions to our society through conference organization, technical activities, and community engagements.

We have been actively promoting our new Transactions on Intelligent Vehicles (http://sites.ieee.org/itss/publications/). Please consider to submit your work to this exciting new outlet!

As you know well, the ITS Society organizes an array of technical conferences, many of them viewed as the premier events in their respective fields (http://sites.ieee.org/itss/conference/). For our main events, IEEE Intelligent Transportation Systems Conference (ITSC), and IEEE Intelligent Vehicles Symposium (IV), we typically have a 3-year planning period. For other ITS -sponsored conferences (ICVES, ISI, MESA, SOLI, FISTS, VNC, and ICCVE), we typically plan them out 2 years in advance. If you are interested in hosting and organizing some future ITS conference events, please contact Dr. Meng Lu, our VP for Conference Activities at wklm@xs4all.nl. In particular, we welcome proposals to host the IEEE ITSC 2019.

The ITS Society confers annually several IEEE awards, including the IEEE ITS Institutional Lead Award, the IEEE ITS Outstanding Research Award, the IEEE ITS Outstanding Application Award, and the IEEE ITSS Best Dissertation Award (http://sites.ieee.org/itss/itss-awards/). There awards will be announced at the ITSC in the Fall. The nominations are due in July. Please contact Professor Brendan Morris, our VP for Membership Activities at brendan.morris@unlv.edu in case you have questions about these awards. The call for nominations will be announced through our Newsletters and the society website.

The rest of this message is concerned with ITS and Big Data. There is no doubt that vehicles and transportation systems generate a lot of data that can be labeled as big data. With application of pervasive computing and an increasing array of distributed sensors, ITS big data is expected to continue to experience fast growth in the years to come. Many of the much-discussed smart+ initiatives, smart cars, smart roads, smart public transportation systems, smart cities, among others, are built on the premise of intelligent processing of ITS big data. We, the ITS researchers and practitioners, of course, are in an increasing need of accessing and managing ITS big data.

At the same time, data challenges abound. Many datasets are privately owned; it is not uncommon for researchers to invest significant, duplicated efforts to generate often inconsistent experimental datasets, making reproducible research hard and hindering the technical advances. Often, even when the authors or the owners of the datasets are willing to share, there is no sustainable mechanism to enable data sharing and benefit the community.

Recognizing these challenges, the IEEE has initiated the IEEE DataPort project. The main goal of this project is to enable data owners to make datasets accessible to a broad set of researchers and practitioners, and provide tools to enable data sharing and analysis. You can find the detailed project information at http://bigdata.ieee.org/ieee-dataport.

The ITS Society is a partner of this IEEE initiative, focusing on enabling sharing of ITS datasets including those that can be characterized as ITS big data. Spearheaded by Professor Javier Sanchez Medina and myself, the IEEE ITS data repository project is currently in the planning phase and would welcome input and advice from you. As the first step, we are planning a one-stop ITS dataset repository, accessible through the Web, where our society collects and makes accessible some of the popular and impactful ITS datasets, including various kinds of meta and curation information. We are also planning social networking tools for the users to share their knowledge and application ideas, centered around these datasets. This effort is meant to be a community-driven project. The ITS community will decide jointly what datasets could go into this repository, how to better facilitate reproducible research, what kinds of sharing tools will be needed, among others. Soon, Javier and I will conduct an online survey about the repository and the specific datasets. Your participation will be deeply appreciated! After the survey is completed, I will provide another update on this ITS Big Data initiative.

I look forward to meeting many of you in June at IV in the beautiful city of Gothenburg, Sweden!

Sincerely,

Daniel Zeng President, IEEE ITS Society

# Join the IEEE ITS Society



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 <u>Conferences</u>, including the premier flagship conferences: the Intelligent Transportation System Conference (<u>ITSC</u>) and the Intelligent Vehicles Symposium (IV);
  - ITSS has 15 <u>Technical Committees</u>, where you can participate together with technical experts;
  - ITSS has new <u>chapters</u> forming around the world, where you can participate in local activities:
- Professional Recognition through prestigious ITSS Awards:
  - IEEE ITS Outstanding Research Award;
  - <u>IEEE ITS Outstanding Application Award</u>;
  - 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 Outstanding Research Award IEEE ITS Outstanding Application Award IEEE ITS Institutional Lead Award

# Call for Nominations

## The prestigious

- IEEE ITS Outstanding Research Award,
- IEEE ITS Outstanding Application Award, and
- IEEE ITS Institutional 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.

### **Nomination Materials**

Each nomination must consist of the following materials:

- (1) A 5-page summary statement providing sufficient detail for evaluation of the innovations and impact of the work.
- (2) At least 3 letters of recommendation from the recognized peer researchers, customers or users of the developed application, and organizations attesting to the work's significance and impact.

### **Evaluation**

A dedicated selection committee will evaluate all qualified nominations for these IEEE ITS Awards. Awards will be announced in November 2016 at the ITSC 2016 conference in Rio de Janeiro, Brazil, where the recipients will give featured presentations of their work.

## **Submission Deadline**

Please email nominations before **July 18, 2016** to ITSS Vice President for Membership at brendan.morris@unlv.edu.

Brendan Morris VP for Membership

## **IEEE ITSS Best Ph.D. Dissertation Award**

# Call for Applications

**IEEE ITSS Best Dissertation Award** is given annually for the best dissertation in any ITS area that is innovative and relevant to practice. This award is 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.

## **Application Materials**

Each application must consist of the following materials:

- 1. A doctoral dissertation written by the applicant in any language, no more than 18 months prior to the submission deadline.
- 2. A summary of the dissertation in English of up to 3 pages in length written by the Ph.D. candidate, highlighting the significance of the problem, the technical approach taken, application context and potential, and the scope of the dissertation.
- 3. Sample published paper(s) in English based on the dissertation written primarily by the Ph.D. candidate in scientific journals such as the IEEE Transactions on ITS or the IEEE ITS Magazine.
- 4. Listing of all publications by the applicant in the related field(s).
- 5. A letter of recommendation from the applicant's dissertation advisor that assesses the significance of the research, attests to the originality of the work, and comments on the engagement of the applicant in the ITS field and the IEEE ITS Society.

## **Prize and Presentation**

The winners will receive a cash prize and invitation to be recognized and present their work in November 2016 at the ITSC 2016 conference in Rio de Janeiro, Brazil. Awardees' work will be featured in ITSS Transactions, ITS Magazine,

and ITS Newsletter, when appropriate.

### **Evaluation**

A dedicated selection committee will evaluate all qualified applications for the IEEE ITS Best Ph.D.

Dissertation Awards and make selections.

Place	Prize Amount (USD)
1 <sup>st</sup>	\$2000
2 <sup>nd</sup>	\$1000
3 <sup>rd</sup>	\$500

## **Submission Deadline**

Please submit the application materials by email before **July 18, 2016** to ITSS Vice President for Membership at brendan.morris@unlv.edu.

Brendan Morris VP for Membership

## ITSS EDU



The IEEE Intelligent Transportation Systems Society (IEEE ITSS) Educational Activities Board (EAB) fosters programs for the growth of the ITSS educational related activities, recommending policies for educational development; coordinating the Distinguished Lecture Series of the society and approving plans for educational support activities.

We aim at serving the IEEE ITS members in educational pursuits supporting them with high-quality opportunities for education on the topic, providing them with information to understand prospects and career paths in ITS.

To expand the ITS society's offerings and opportunities in future industries of relevance, it is a pleasure to present the ITSS EDU Platform <a href="http://edu.itss.cicei.org">http://edu.itss.cicei.org</a> that contains courses covering specific topics of interest in the ITS area.

We hope you that you will find them interesting and useful to gain valuable and meaningful skills in Intelligent Transportation Systems.

Dr. Cristina Olaverri Monreal, Vice President IEEE ITSS Educational Activities



# ITS Podcast New Episodes and Information

Please, circulate this!

# **ITS Podcast Episode 34:** Predicting Intentions with Cristobal

In this this episode we have a central interview with profesor Curio, from Reutlingen University in Germany to talk about autonomous vehicles, intention prediction, driver's attention estimation and a lot more exciting hot research topics in our field. Don't miss it, you will learn a thing or two. That interview was brilliantly conducted by our great volunteer Dr. Kaveshgar. We also have our usual contents: a Transportation in History minisection with a very interesting review of centuries 16th to 20th, by Mehran Shirazi, and a lovely review on the book titled "Cooperative Vehicular Communications in the Drive-thru Internet" by professor Eren



# ITS Podcast Episode 35: IEEE IV 2016 Special Issue with Coeglinh from Volvo cars and Anna Nilsson-Ehle from SAFER

This is episode 35 for July 2016, a special issue about the still warm Intelligent Vehicles Symposium 2016 that has just happened in Sweden a few days ago. We have been there and we have prepared such a good selection of contents around it. We have one of its keynotes to speak about Volvo's vision on automated driving. He is Erik Coeglinh, Senior Technical Leader for Safety and Driver Support Technologies at Volvo Cars. He talked about Volvo's exciting project Autopilot that will be starting as soon as next year in Gothenburg, the city where IV2016 was held.

We also talked a little bit with Anna Nilsson-Ehle, Director of SAFER, host organization for IV2016, together with Chalmers university. It is a very interesting hub organization connecting together a big number of stakeholders on mobility safety.

# **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 <a href="mailto:itsspodcast@gmail.com">itsspodcast@gmail.com</a>.

# **Subscribe to the <u>Youtube Channel of the IEEE ITS Podcast</u>:**

We are launching our new YouTube Channel here. We want you as our subscriber!

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

Prof. Javier J. Sanchez-Medina EiC IEEE ITS Podcast

# Job Annoucement: Researcher position at Spain

The Group of Robotics at University of La Laguna (ULL), in the Canary Islands, Spain, requests for applications to fill in a post as researcher, to submit a proposal to the Tenerife Government's *Agustín de Betancour* call (<a href="http://www.gobiernodecanarias.org/boc/2016/127/002.html">http://www.gobiernodecanarias.org/boc/2016/127/002.html</a>)

The purpose of this call is selection of a candidate for a PhDs or technologist position, for a period of one year, renewable up to four years, full time, for the development of research tasks, experimental and technological, under the work program of a research project, earning 40,000 Euros gross / year if the applicant is Doctor or 30,000 Euros gross / year if the applicant is not Doctor.

The research project will be developed at the University of La Laguna (ULL), in Spain.

Once selected, the candidate will be part of the proposal that will be submitted, together with members of the ULL Group of Robotics and a local company that will endorse and collaborate during the development of the project.

The job description will be to contribute the development of a self-guided wheelchair for use mainly in tourist accommodation, much frequented by senior age and also by people with various functional disabilities, including experimental or theoretical work which, aiming at the commercialization of such product by creating a Spin-off or by joining an existing local technology based company. The job description does not include any teaching tasks.

Among the desirable skills of the candidate it should be experience with ROS (Robot Operating System).

### **Deadline: 08/07/2016**

Applications must include a resume with the research experience. Applications and further information can be requested here:

Prof. Leopoldo Acosta Sánchez (lacosta@ull.es)





## 19th International IEEE Conference on Intelligent Transportation Systems

Convention Center, Windsor Oceanico Hotel, Rio de Janeiro, Brazil, November 1 - 4, 2016 "Intelligent Transportation for Smarter Societies"

### **Important Dates**

Workshop Paper submission: NEW! July 11, 2016

**Workshop Paper notification:** *August 15, 2016* 

Workshop Paper CR due:

August 29, 2016

Demonstration Proposals:

July 31, 2016

### **Organizing Committee**

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#### **Organizing Institutions**











### **CALL FOR WORKSHOP PAPERS & DEMONSTRATIONS**

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. IEEE ITSC 2016 is organized by Faculdade de Engenharia, Universidade do Porto (FEUP), Portugal, and Instituto de Ciências Matemáticas e de Computação, Universidade de São Paulo (ICMC/USP), Brazil.

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 Convention Center of Windsor Oceanico Hotel, located in the sophisticated Barra da Tijuca, a short walk from the beach.

Besides regular and special sessions of the main track of IEEE ITS Conferences, Workshops and Demonstrations are also important parts of their technical program. Workshops will promote the appropriate environment to foster discussion and collaboration on specific topics of interest, allowing participants to discuss their work in progress, preliminary results, and perspectives. On the other hand, Demonstrations will allow practitioners, the scientific community, and industry to practically showcase working systems, innovative applications, ground breaking ideas, and novel concepts in intelligent transportation systems.

### **Workshops at ITSC 2016**

ITSC Program Committee specially invites contributions to the following workshops:

- 8<sup>th</sup> Int. Workshop on Planning, Perception and Navigation for Intelligent Vehicles: A bridge between Robotics and ITS technologies
- 6th Int. Workshop on Artificial Transportation Systems and Simulation
- 2<sup>nd</sup> Int. Workshop on Intelligent Public Transports: Toward the Next Generation of Urban Mobility
- Int. Workshop on Vehicular Networks Applications: From Physical Layer to Cloud
- Int. Workshop on Advanced Perception, Machine Learning and Datasets
- Int. Workshop on Simulation of Intelligent Industrial Transportation and Logistics Systems
- International Workshop on Serious Games and Gamification in ITS (GameITS)

### **Workshop 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 on the conference website at:

### http://www.ieee-itsc2016.org

Papers accepted for the technical program of Workshops will be included in the conference proceedings to be published and indexed by IEEE in its *IEEE Xplore Digital Library*. Workshop organizers may plan to publish selected papers in special issues of prominent journals.

### **Prospective Demonstration Proposers**

Demonstration proposals must be submitted electronically in PDF format in IEEE standard-format. Proposals should include the following information: i) Title of the demonstration, ii) authors' names, affiliation and contact information, iii) short abstract, iv) aim and scope of the demonstration, v) setup of the demonstration, vi) main features to be demonstrated and vii) requirements (e.g. power, internet).

# 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 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 <a href="http://its.ieee.org/2014/10/06/submitting-a-paper/">http://its.ieee.org/2014/10/06/submitting-a-paper/</a> 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)









## Proposal for 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, <a href="mailto:czguo@mosk.tytlabs.co.jp">czguo@mosk.tytlabs.co.jp</a>

Dr. Javier Alonso, University of Alcalá, Spain, javier.alonsoruiz@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 (Tentative):

Paper submission deadline
Author notification
Revised manuscript submission deadline
Final decision notification
Final paper submission deadline
Final paper submission deadline
Final paper submission deadline
Final paper submission deadline
February 15, 2017

## 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 highquality 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 includina (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 <u>'IEEE Transactions on Intelligent Transportation Systems and Intelligent Transportation Systems Magazine</u>' manuscriptcentral via <u>'https://mc.manuscriptcentral.com/itsm'</u>. 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'.

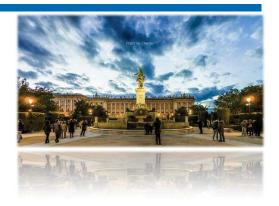


## **CALL FOR PAPERS**

# <u>1st EAI International Conference on Security and</u> Privacy in Vehicular Networks

Supported by the Spanish Chapters of IEEE Intelligent Transportation

Systems Society and IEEE Computer Society
17-18 November, 2016
Madrid, Spain



#### **SCENARIO**

Vehicular networks (or VANETs for short) are gaining attention among the research community. With the evolution of ICT technologies in this field, a huge amount of services may be devised. In fact, the term "smart cities" has been recently coined to refer to advanced applications that make public services to be "smarter". Transportation management is one of these services.

Despite the expected benefits, security issues cannot be taken for granted. In particular, classical needs such as authentication, confidentiality, integrity, access control and non-repudiation have to be provided in this novel scenario. Data trust is also a relevant matter. According to the unique features of VANETs (e.g. high mobility of nodes, geographical dispersion, short-range communications), offering these services becomes a challenge.

Privacy is also of utmost relevance in VANETs. In a context in which malicious third parties may abuse Road-Side Units (RSUs) or compromise surrounding vehicles, it is essential to ensure that threats like tracking are not easily carried out. Privacy preservation is also required to prevent a "big brother" effect. However, this need has to be balanced with liability – misbehaving drivers and/or offenders must be properly authenticated to make them liable for their malicious actions.

The standardization community (e.g. IEEE, SAE, etc.) is also contributing to generalize the mechanisms to provide with security and privacy support for vehicular communications. However, there is still the need to propose novel approaches in this regard.

The goal of this conference is to address the foundations of security and privacy in the field which help to setting a ground base for further developments in VANETs. Expected contributions have to identify novel models, techniques, protocols, algorithms or architectures, etc. that provide with the said properties.

Scientists and practitioners all over the world are invited to take part in this conference. Novel proposals which include an experimental implementation and evaluation of the proposed approach would stand out over the rest.

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Conference by

**EAI Endorsed Transactions** 











Potential topics of interest, which can be investigated from different perspectives (social, organizational, technological) include, but are not limited to, the following application domains:

- Privacy/Anonymity mechanisms in VANETs
- Security and privacy metrics
- Authentication and access control in VANETs
- User and Data trust issues in VANETs
- Formal security models for VANET protocols
- Novel cryptographic algorithms for VANETs
- Secure and privacy-preserving aggregation techniques for VANETs
- Formal verification techniques for VANET protocols
- Standardization aspects of VANET security and privacy
- Human-computer interaction issues related to security/privacy perception in VANETs
- Legal issues related to security and privacy aspects for VANETs
- Secure and private location-based services in VANETs

### **Highlights:**

The event is endorsed by the <u>European Alliance for Innovation</u>, a leading community-based organization devoted to the advancement of innovation in the field of ICT. It is also technically sponsored by IEEE Intelligent Transportation System Society.

All accepted papers will be submitted for publication in Springer LNICST and made available through SpringerLink Digital Library. Proceedings are submitted for inclusion to the leading indexing services: Elsevier (EI), Thomson Scientific (ISI), Scopus, Crossref, Google Scholar, DBLP.

Selected (and presented) papers, after further extensions, will be published in the Special Issue of the SPVAN conference in the <u>Mobile Networks and Applications Journal</u> (included in Thomson Reuters' ISI JCR ranking).

Furthermore, other outstanding papers will be considered for publication in the <u>EAI Endorsed Transactions on Security and Safety</u>.

### **Paper submission**

Papers should be written in English and formatted using the Springer LNICST Authors' Kit (see <u>Author's kit section</u>). Papers should be submitted through EAI 'Confy' system at Confy.

Paper length: Regular papers up to 6 pages and Short papers up to 4 pages.

### **Publication Ethics and Malpractice statement**

Previously published work may not be submitted, nor may the work be concurrently submitted to any other conference or journal. Such papers will be rejected without review. Read the <u>Publication Ethics and Malpractice Statement</u>.

EAI conferences are committed to upholding the highest standards of publication ethic and publication malpractices. All this Publication Ethics and Malpractice Statement is based, in large part, on the <a href="COPE">COPE</a> (Committee on Publication Ethics).

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### **Important Dates**

### Full Paper Submission Deadline

15<sup>th</sup> July 2016

### **Notification Deadline**

12th August 2016

### Camera-ready Deadline

12<sup>th</sup> September 2016

### Conference dates

17<sup>th</sup> – 18 November 2016

## **ORGANIZING COMMITTEE**

#### • General Chairs

<u>José María de Fuentes</u>, Computer Security Lab (COSEC), Carlos III University of Madrid, Spain

### • General Co-Chairs

Lorena González-Manzano, Computer Security Lab (COSEC), Carlos III
University of Madrid, Spain
Pedro Peris-López, Computer Security Lab (COSEC), Carlos III
University of Madrid, Spain

## • Technical Program Committee Chairs

<u>Javier López</u>, Computer Science Department, University of Malaga, Campus de Teatinos, Spain

### • Publicity and Social Media Chair

<u>Jetzabel Serna-Olvera</u>, Chair of Mobile Business and Multilateral Security, Goethe Universität, Frankfurt, Germany

### • Sponsorship & Exhibits Chair

Agusti Solanas, Head of the Smart Health Research Group Dept. Computer Engeneering and Maths, Rovira I Virgili University Av. Paisos Catalans, Spain

### • Website Chair

<u>Ana I. González-Tablas</u>, Computer Security Lab (COSEC), Carlos III University of Madrid, Spain

### • Publications Chair

<u>Javier J. Sánchez-Medina</u>, Innovation Center for the Information Society (CICEI), University of Las Palmas de Gran Canaria, Spain <u>Miguel A. Sotelo</u>, University of Alcalá de Henares, Spain

### • Local Chair

Ana I. González-Tablas, Computer Security Lab (COSEC), Carlos III University of Madrid, Spain

### • Conference Manager

Monika Majerníková, European Alliance for Innovation, Bratislava, Slovakia

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# **Workshop: Intelligent Transportation Systems and Smart Mobility**

**Call for Extended Abstracts** for Workshop at EUROCAST2017 (<a href="http://eurocast2017.fulp.ulpgc.es">http://eurocast2017.fulp.ulpgc.es</a>) co-chairs: Javier J. Sanchez-Medina (ULPGC), Hilmi Berk Celikoglu (Tech. Uni. of Istanbul), Cristina Olaverri-Monreal (Uni. of Applied Sciences Technikum Wien), Fernando Garcia-Fernandez (Carlos III Uni. of Madrid), Leopoldo Acosta-Sanchez (University of La Laguna).



Venue: Museo Elder de la Ciencia. Las Palmas de Gran Canaria, Canary Islands, Spain

### **Important Dates:**

- Extended Abstract Submissions Deadline (2 pages, Springer LNCS format): **October 31, 2016**.
- Conference/Workshop Dates: February 19-24, 2017 (During local Carnival celebrations)

An extended two pages abstract, including references in English with indication of the workshop of the intended contribution must be sent by e-mail to <a href="mailto:eurocast@iuctc.ulpgc.es">eurocast@iuctc.ulpgc.es</a>.

LNCS Format instructions here: http://goo.gl/WmqKoS

We live in an era of major societal and technological changes. Recent demographic trends generate new challenges for cities making an efficient and sustainable management of services and resources more than ever necessary. Cities must transform and become "Smart Cities" to cope with these challenges. According to ([1]), a city may be called 'smart' "when investments in human and social capital and traditional (transport) and modern (ICT) communication infrastructure fuel sustainable economic growth and a high quality of life, with a wise management of natural resources, through participatory government". A Smart City is a city's response to that challenges raised by technological evolution and namely ICT development and penetration. Scattered sensors and technological devices do not make a city smart - rather, it is the city's structure, dynamics, and the implications of the technology on improvement in the wealth and quality of life of its citizens ([2]).

A central element that requires consideration is **mobility**. Many scientific and political fora have called for a brand new way of thinking about mobility, based on four important pillars. **Safety**, **Environmental sustainability**, **Social equity** and **Economic sustainability** are the driving forces of the change we will see for good in the next decades.

The concept of 'Smart Mobility' is an essential part of the 'Smart City' paradigm, that has so far been understood as a fusion of of Information and Communication Technologies (ICT) with Transportation. However, this is only a simplistic notion of what 'Smart Mobility' really needs to be. In this workshop we will extend that vision and explore



from traffic modelling and management to transportation electrification, human factors and autonomous driving, in a holistic and human centred approach. To do so we will work to have contributions from reputed scientists coming from all of the aspects of the proposed theme.

This Workshop was meant as a continuation and renewal of two past traditional EUROCAST Workshops, namely "Traffic Behaviour, Modelling and Optimization" and "Mobile and Autonomous Transportation Systems".

Authors will be notified of acceptance by December 1, 2016. Accepted Extended Abstracts will be published in a pre-Conference volume with ISBN. It is anticipated that the final selected full papers will be published in line with prior Eurocast meetings (Springer Lecture Notes in Computer Sciences). Selected full final papers for publication will be required before April 30, 2017.

Further information can be requested here: javier.sanchez.medina@ieee.org

<sup>[1]</sup> Schaffers, H., Komninos, N., Pallot, M., Trousse, B., Nilsson, M., & Oliveira, A. (2011). Smart Cities and the Future Internet: Towards Cooperation Frameworks for Open Innovation. Future internet assembly, 6656(31), 431-446.

<sup>[2]</sup> Komninos, N. (2008). Intelligent cities and globalisation of innovation networks. Routledge.

## **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)

- \* http://cts2016.cisedu.info/2-conference/special-sessions---cts-2016/ss01-icd2016
- \* October 31 November 04, 2016
- \* Orlando, Florida, USA

In Cooperation with ACM, IEEE, and IFIP

Submission Deadline: July 29, 2016 Extended Deadline

Submissions could be for full papers, short papers, poster papers, or posters

### [SCOPE AND OBJECTIVES]

The special session will present techniques, methodologies, algorithms, system integrations, 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:

### **Networking and Mobile Internet for Autonomous Connected Vehicles:**

- Vehicular Ad Hoc Networks (VANET)
- In-Vehicle Networks and Communications infrastructure
- V2V, V2I and V2X 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 MIMOs 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 Flows
- 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 Services
- Map Data and Map Features for Connected Vehicles and ITS
- Adoption of Cellular Standards (2G/3G/4G) in Connected Vehicles and ITS
- Social Implications, Impact Assessment and Benefits of Connected Vehicles and ITS

### [PAPER SUBMISSION]

You are invited to submit original and unpublished research works on above 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/1-call-for-papers/call-for-posters for the posters submission details) will also be accepted for submission. Please include page numbers on all preliminary submissions to make it easier for reviewers to provide helpful comments.

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.

If the submission is for a poster, poster paper or short paper, indicate that as well on the manuscript.

Only PDF files will be accepted, uploaded to the link above. 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 2015 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.

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

### [IMPORTANT DATES]

Paper Submission Deadline: July 29, 2016

Notification of Acceptance: Aug 19, 2016

Registration & Camera-Ready Paper Due: Sep 02, 2016

Conference Dates: October 31 - November 04, 2016

### [SPECIAL SESSION ORGANIZERS]

Dr. Cristina Olaverri Monreal, Univesity of Applied Sciences, Technikum Wien, <a href="mailto:olaverri@technikum-wien.at">olaverri@technikum-wien.at</a>;

Dipl.-Medieninf. Markus Zimmermann, Technische Universität München, Institute of Ergonomics <a href="mailto:zimmermann@lfe.mw.tum.de">zimmermann@lfe.mw.tum.de</a>;

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.

- 1. Myounghoon Jeon, Michigan Technological University, USA
- 2. José Santa, University Centre of Defence at the Spanish Air Force Academy, Spain
- 3. Chris Schwarz, National Advanced Driving Simulator, University of Iowa, USA
- 4.Enrique Cabello Pardos, Universidad Rey Juan Carlos, Madrid, Spain
- 5. Congyi Liu, Qualcomm Inc., San Diego, USA
- 6.Gerd Krizek, UAS Technikum Wien, Austria
- 7.Klaus Bengler, Technical University of Munich, Germany
- 8. Sören Hohmann, Karlsruhe Institute of Technology, Germany
- 9. Andry Rakotonirainy, Queensland University of Technology, Australia
- 10. Johann Kelsch, German Aerospace Center (DLR), Braunschweig, Germany
- 11. Andrew L. Kun, University of New Hampshire, USA
- 12. Andreas Lüdtke, OFFIS Institute for Information Technology, Germany
- 13. Frank Flemisch, RWTH Aachen University, Germany
- 14. Martin Baumann, Ulm University, Germany
- 15. Thierry Bellet, Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux, France
- 16. Fabio Tango, Centro Ricerce Fiat, Italy
- 17. Fernando Garcia, University Carlos III, Madrid, Spain
- 18. Paul Oh Oh, University of Nevada Las Vegas, USA
- 19. Salvador Hernandez, Oregon State University, Oregon, USA

## **Conference Calendar**

By Haluk Eren, PhD. Firat University, Turkey.

This section lists upcoming ITS-related conferences, workshops, or exhibits. Contributions are welcome; please send announcements to <a href="http://goo.gl/forms/xpgl8WLt9F">http://goo.gl/forms/xpgl8WLt9F</a>



Haluk Eren

# IEEE Intelligent Transportation Systems Society's Sponsored Conferences

# 2016 IEEE Intelligent Vehicles Symposium (IV'16)

June 19-22, 2016 Gothenburg, Sweden http://www.iv2016.org

# The 12<sup>th</sup> IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications (MESA 2016)

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

# IEEE 19th International Conference on Intelligent Transportation Systems (ITSC 2016)

November 01-04, 2016 Rio de Janeiro, Brazil https://web.fe.up.pt/~ieeeitsc2016/

# IEEE International Conference on Vehicular Electronics and Safety (ICVES'16)

July 10-12, 2016 Beijing, Chine

http://www.ieeeves.org

# **IEEE International Conference on Service Operations and Logistics, and Informatics (SOLI'16)**

July 10-12, 2016
Beijing, Chine
<a href="http://www.ieeesoli.org">http://www.ieeesoli.org</a>

# **2016 IEEE Forum on Integrated and Sustainable Transportation Systems** (FISTS 2016)

July 10-12, 2016

## The 3rd International Conference on Universal Village (UV 2016)

October 6-8, 2016 Nagoya, Japan

http://www.universal-village.org/

# The 5th IEEE International Conference on Advanced Logistics and Transport (IEEE ICALT'2016)

June 1-3, 2016 Kraków, Poland http://www.icalt.org/2016/

# The 2016 IEEE International Conference on Intelligent Rail Transportation (IEEE ICIRT 2016)

August 23-25, 2016
Birmingham, UK
http://www.ieee-icirt.com/

# Other Conferences

# 2016 SAE Battelle CyberAuto Challenge

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

# The 22<sup>nd</sup> 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**

October 02-05, 2016 Chattanooga, TN, USA

http://www.nationalruralitsconference.org/

## **IEEE Multi-Conference on Systems and Control (MSC 2016)**

September 19-22, 2016 Buenos Aires, Argentina http://www.msc2016.org/

# IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2016)

October 9-14, 2016 Daejeon, Korea http://www.iros2016.org

## 23rd ITS World Congress

October 10-14, 2016
Melbourne, Australia
http://www.itsworldcongress2016.com

# **Seminars and Dagstuhl Perspectives Workshops 2016**

Schloss Dagstuhl, Germany <a href="http://www.dagstuhl.de/en/program/calendar/?dag\_type=12&dag\_year=2016">http://www.dagstuhl.de/en/program/calendar/?dag\_type=12&dag\_year=2016</a>

# VISIGRAPP 2017: 12<sup>th</sup> International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications

February 27 - March 01, 2017 Porto, Portugal http://www.visigrapp.org Submission due by: September 22, 2016

# The 5<sup>th</sup> International Conference on Connected Vehicles & Expo (ICCVE 2016)

September 12-16, 2016 Seattle, WA, USA http://www.iccve.org/

# Forthcoming papers on IEEE Transactions on ITS

# <u>Decentralized Traffic Signal Control with Fixed and Adaptive Routing of Vehicles in Urban Road Networks</u>

ZAIDI, ALI; KULCSÁR, BALÁZS; WYMEERSCH, HENK

## Vision for Looking at Traffic Lights: Issues, Survey, and Perspectives

JENSEN, MORTEN; PHĪLIPSEN, MARK; MØGELMOSE, ANDREAS; MOESLUND, THOMAS; TRIVEDI, MO-HAN

# Long-range road geometry estimation using moving vehicles and road-side observations

HAMMARSTRAND, LARS; FATEMI, MARYAM; GARCÍA-FERNÁNDEZ, ÁNGEL; SVENSSON, LENNART

# Excess Propagation Loss Modeling of Semi-Closed Obstacles for Intelligent Transportation Systems

GUAN, KE; AI, BO; FRICKE, ALEXANDER; HE, DANPING; ZHONG, ZHANGDUI; MATOLAK, DAVID; KÜRNER, THOMAS

# BDD-based Synthesis of Fail-Safe Supervisory Controllers for Safety-critical Discrete Event Systems

ZHOU, MENGCHU; XU, TIANHUA; WANG, HAIFENG; YUAN, TANGMING

# <u>A Hierarchical Model Predictive Control Approach for Signal Splits Optimization in Large-scale Urban Road Networks</u>

WU, WEIMIN; YE, BAO-LIN; LI, LINGXI; MAO, WEIJIE

# <u>Dual-objective Scheduling of Rescue Vehicles to Distinguish Forest Fires via</u> <u>Differential Evolution and Particle Swarm Optimization Combined Algorithm</u>

ZHOU, MENGCHU; TIAN, GUAGNDONG; REN, YAPING

# An Efficient Anonymous Batch AuthenticationScheme Based on HMAC for VANETs

JIANG, SHUNRONG; ZHU, XIAOYAN; WANG, LIANGMIN

# <u>Charging Electric Vehicles in the Smart City: A Survey of Economy-driven Approaches</u>

SHUAI, WENJING; MAILLÉ, PATRICK; PELOV, ALEXANDER

# Integration of Structural Health Monitoring and Intelligent Transportation Systems for Bridge Condition Assessment: Current Status and Future Direction

KHAN, SAKIB; ATAMTURKTUR, SEZ; CHOWDHURY, MASHRUR; RAHMAN, MIZANUR

# A Bibliographic Analysis and Collaboration Patterns of IEEE Transactions on Intelligent Transportation Systems Between 2000 and 2015

XU, XIUJUAN; WANG, WEI; LIU, YU; ZHAO, XIAOWEI; XU, ZHENZHEN; ZHOU, HONGMEI

## A Practical Security Architecture for In-vehicle CAN-FD

LEE, DONG HOON; WOO, SAMUEL; JO, HYO JIN; KIM, IN SEOK

# <u>Satisficing Game Approach to Collaborative Decision Making Including Airport Management</u>

LI, WEIGANG; ALMEIDA, CICERO; MEINERZ, GIOVANI; LI, LEIHONG

# <u>A Low-latency Collaborative HARQ Scheme for Control/User-plane Decoupled</u> <u>Railway Wireless Networks</u>

FANG, XUMING; YAN, LI; MIN, GEYONG; FANG, MICHAEL

# Modeling of Crowd Evacuation with Assailants via a Fuzzy Logic Approach DONG, HAIRONG; ZHOU, MIN; WEN, DING; YAO, XIUMING; SUN, XUBIN

## On Centralized and Decentralized Architectures for Traffic Applications

MITROVIC, NIKOLA; NARAYANAN, ADITYA; ASIF, MUHAMMAD TAYYAB; RAŪF, ANSAR; DAUWELS, JUSTIN; JAILLET, PATRICK

# <u>A hybrid controller for vision-based navigation of autonomous vehicles in urban environments</u>

DE LIMA, DANILO ALVES; VICTORINO, ALESSANDRO

# Natural Optimization Algorithms for the Cross-Dock Door Assignment Problem

TARHINI, ABBAS; YUNIS, MANAL; CHAMSEDDINE, MOHAMAD

# Forecasting adverse weather situations in the road network

PLA-CASTELLS, MARTA; TOMAS-LOPEZ, RAMON; MARTÍNEZ, JUAN; MARTÍNEZ, JAVIET

# T-DesP: Destination Prediction Based On Big Trajectory Data

LI. XIANG: MENGTING: GONG. YUEJIAO: ZHANG. XINGLIN: YIN. JIAN

# **Generating Petri Net-based Behavioral Models from Textual Use Cases and Application in Railway Networks**

ZĤOU, MENGCHU; DING, ZŬOHUA; JIANG, MINGYUE

# <u>Cooperative Control Synthesis and Stability Analysis of Multiple Trains under</u> Moving Signaling Systems

DONG, HAIRONG; GAO, SHIGEN; NING, BIN

## Order-Preserving Condensation of Moving Objects in Surveillance Videos

WON, CHEE SUN; NGUYEN, HAI THANH; JUNG, SEUNG-WON

# <u>Comments on "Estimating Dynamic Queue Distribution in a Signalized Network Through a Probability Generating Model</u>

WANG, YIBING

# <u>Unsupervised Tracking with the Doubly Stochastic Dirichlet Process Mixture</u> Model

SUN, XING: YUNG, N.H.C.: LAM, EDMUND

# <u>Distributed Adaptive Integrated Sliding Mode Controller Synthesis for String Stability of Vehicle Platoons</u>

WANG, JIANLIANG; GUO, XIANGGUI; LIAO, FANG; TEO, RODNEY

# Solving the Dynamic Vehicle Routing Problem under Traffic Congestion

CHEONG, TAESU; KIM, GITAE; ONG, YEW SOON; TAN, PUAY SIEW

# A new hardware-in-the-loop traffic signal simulation framework to bridge traffic signal research and practice

LI, PENGFEI; MIRCHANDANI, PITU

# <u>Local Volumetric Hybrid Map-based Simultaneous Localization and Mapping</u> with Moving Object Tracking

CHOI, JAEBUM; MAURER, MARKUS

# <u>A Low-cost Solution for Automatic Lane-level Map Generation using Conventional In-car Sensors</u>

GUO, CHUNZHAO; KIDONO, KIYOSUMI; MEGURO, JUNICHI; KOJIMA, YOSHIKO; OGAWA, MASARU; NAITO, TAKASHI

# **Exploiting Large Image Sets for Road Scene Parsing**

ALVAREZ, JOSÉ M.; SALZMANN, MATHIEU; BARNES, NICK

# <u>Inferring Passenger Travel Demand to Improve Urban Mobility in Developing</u> <u>Countries Using Cell Phone Data: A Case Study of Senegal</u>

DEMISSIE, MERKEBE; PHITHAKKITNUKOON, SANTI; SUKHVIBUL, TITIPAT; ANTUNES, FRANCISCO; GOMES, RUI; BENTO, CARLOS

# A Graph Based Approach to Measuring the Efficiency of Urban Taxi Service System

UKKUSURI, SATISH; ZHAN, XIANYUAN; QIAN, XINWU

# <u>Conflict Management Considering a Smooth Transition of Aircraft into Adjacent Airspace</u>

KIM, YOUDAN; HONG, YOUKYUNG; CHOI, BYUNGHUN; LEE, KEUMJIN

# <u>Cross Array and Rank-1 MUSIC Algorithm for Acoustic Highway Lane Detection</u>

NA, YUEYUE; GUO, YANMENG; FU, QIANG; YAN, YONGHONG

# **High Confidence Intervals Applied to Aircraft Altitude Prediction**

HAMED, MOHAMMAD GHASEMI; ALLIGIER, RICHARD; GIANAZZA, DAVID

# <u>A Stochastic Emergency Response Location Model Considering Secondary Incidents on Freeways</u>

PARK, HYOSHIN; SHAFAHI, ALI; HAGHANI, ALI

# Forthcoming papers on IEEE ITS Magazine

# Development of an Educational Small-Scale Hybrid Electric Vehicle (HEV) Setup

PORIA FĀJRI, MEHDI FERDOWSI, NIMA LOTFI, ROBERT LANDERS

## **Peer to Peer Energy Trading with Electric Vehicles**

R. ALVARO-HERMANA, J. FRAILE-ARDANUY, PEDRO J. ZUFIRIA, LUK KNAPEN, D. JANSSENS

# Towards Privacy-Preserving Wi-Fi Monitoring for Road Traffic Anlysis PAUL FUXJAEGER, STEFAN RUEHRUP, THOMAS PAULIN, BERND RAINER

# **Cooperative Maneuver Planning for Cooperative Driving** *MICHAEL DURING, KARSTEN LEMMER*

# **Cloud-based Pedestrian Road-safety with Situation-Adaptive Energy- Efficient Communication**

MEHRDAD BAGHERI, MATTI SIEKKINEN, JUKKA K. NURMINEN

Cooperative Autonomous Driving: A Mirror Neuron Inspired Intention Awareness and Cooperative Perception Approach SEONG-WOO KIM, WEI LIU

# A Route Planner Service with Recharging Reservation: Electric Itinerary with a click

LUCA BEDOGNI, LUCIANO BONONO D'ELIA, MARCO DI FELICE, TULLIO SALMON CINOTTI

# Most popular papers on IEEE Transactions on ITS

# 1. Wireless Sensor Networks for Condition Monitoring in the Railway Industry: A Survey

Victoria J. Hodge; Simon O'Keefe; Michael Weeks; Anthony Moulds

# 2. Traffic Flow Prediction With Big Data: A Deep Learning Approach

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

# 3. Looking at Vehicles on the Road: A Survey of Vision-Based Vehicle Detection, Tracking, and Behavior Analysis

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