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Krauns, Florian	Inst. of Automotive Engineering, Tech. Univ. Brauns
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Kuecuekay, Ferit	Inst. of Automotive Engineering, Tech. Univ. Brauns
Katz, Roman	Ibeo Automotive Systems
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Ribeiro, Alexandre Monteiro	Univ. of Campinas, Campinas
Azineira, José Raul	Inst. Superior Tecnico, Univ. De Lisboa
Correa Victorino, Alessandro	Univ. De Tech. De Compiègne (UTC)
Ferreira, Paulo Augusto	Univ. of Campinas
Valente	Univ. Estadual De Campinas, UNICAMP
Carneiro de Paiva, Ely	Univ. Estadual De Campinas, UNICAMP
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Tseng, Eric	Ford

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Streubel, Thomas	INRIA Res. Center of Paris
Verroust-Blondet, Anne	Inria Paris-Rocquencourt
Nashashibi, Fawzi	INRIA
Bradaï, Benazouz	Valeo Lighting Systems
Resende, Paulo	Valeo

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Laugier, Christian	INRIA
Simonin, Olivier	INSA Lyon, INRIA, Univ. of Lyon
Ibanez Guzman, Javier	Renault S.A.S,

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Dietmayer, Klaus	Univ. of Ulm

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Hubschneider, Christian	FZI Res. Center for Information Tech
Weber, Michael	FZI Res. Center for Information Tech
Bauer, André	KIT Karlsruhe Inst. of Tech
Härtl, Jonathan	KIT Karlsruhe Inst. of Tech
Dürr, Fabian	KIT Karlsruhe Inst. of Tech
Zöllner, J. Marius	FZI Res. Center for Information Tech. KIT Karlsruhe In

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Chair: Sanchez-Medina, Javier	ULPGC J.
Co-Chair: Fidan, Baris	Univ. of Waterloo

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Hara, Kosuke	Denso IT Lab. Inc
Suzuki, Teppei	Keio Univ
Aoki, Yoshimitsu	Keio Univ

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Tsishikou, Dzmitry	Imra
Remy, Bendahan	IMRA Europe S.A.S
Frédéric, Abad	IMRA Europe S.A.S

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Tsotsos, John York Univ

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Arslan, Sibel	The Ohio State Univ. Center for Automotive Res. Gazi
Wang, Haoan	The Ohio State Univ
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Bhat, Chandra	The Univ. of Texas at Austin

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Salaken, Syed Moshfeq	Deakin Univ
Homaifar, Abdollah	North Carolina a & T State Univ
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Karimoddini, Ali	North Carolina a & T State Univ

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Li, Lingxi	Indiana Univ. Univ. Indianapolis
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Sherony, Rini	Toyota Motor North America
Takahashi, Hiroyuki	Toyota Motor Corp

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Chair: Eskandarian, Azim	Virginia Tech
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van Aalst, Sebastiaan	Flanders Make
Lehaen, Kris	Flanders Make
De Smet, Jasper	Flanders MAKE
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Gu, Weihao	Baidu Inc
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Kurt, Arda	The Ohio State Univ
Chen, Huiyan	Beijing Inst. of Tech
Ozguner, Umit	Ohio State Univ

MoCT0	Peninsula and Pacific
Human Factors for Automated Driving (Regular Session)	

Chair: Olaverri-Monreal, Cristina	UAS Tech. Wien
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Naujoks, Frederik	Center for Traffic Sciences (IZVW), Univ. of Wuerzburg
Neukum, Alexandra	Center for Traffic Sciences (IZVW), Univ. of Wuerzburg

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Dinh, Tuan, Van	BMW
Levkova, Ludmila	Nauto Inc

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Lu, Chao	Beijing Inst. of Tech
Gong, Jianwei	Beijing Inst. of Tech
Wang, Gang	Shenzhen Inst. of Advanced Tech. Chinese Acad. of S

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Frison, Anna-Katharina	Univ. of Applied Science Ingolstadt (THI)
Riener, Andreas	Univ. of Applied Sciences Ingolstadt
Hasirlioglu, Sinan	Tech. Hochschule Ingolstadt

MoDT1	Peninsula and Pacific
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Chair: Zhao, Huijing	Peking Univ
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Hirsenkorn, Nils	Tech. Univ. München
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Rasshofer, Ralph	BMW Forschung Und Tech. GmbH
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Dai, Bin	National Univ. of Defense Tech

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Three Ways of Using Stereo Vision for Traffic Light Recognition, pp. 430-436.

Fregin, Andreas	Daimler AG
Müller, Julian	Univ. of Ulm

15:50-17:20	MoDT1.8
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Autonomous Vehicle Self-Localization Based on Multilayer 2D Vector Map and LiDAR, pp. 437-442.

Javanmardi, Ehsan	The Univ. of Tokyo
Javanmardi, Mahdi	The Univ. of Tokyo
Gu, Yanlei	The Univ. of Tokyo
Kamijo, Shunsuke	The Univ. of Tokyo

15:50-17:20	MoDT1.9
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Real-Time Method for General Road Segmentation, pp. 443-447.

Valente, Michelle	Ec. Des Mines De Paris
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(ParisTech)

Stanculescu, Bogdan	Ec. Des Mines De Paris (ParisTech)
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15:50-17:20	MoDT1.10
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Semi-Automatic Image Annotation of Street Scenes, pp. 448-455.

Petrovai, Andra	Tech. Univ. of Cluj-Napoca
Costea, Arthur Daniel	Tech. Univ. of Cluj-Napoca
Nedevschi, Sergiu	Tech. Univ. of Cluj-Napoca

MoDT2	Bay
Mapping and Localization -1 (Interactive Session)	

Chair: Xue, Jianru	Xi'an Jiaotong Univ
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15:50-17:20	MoDT2.1
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GNSS-Shortages-Resistant and Self-Adaptive Rear Axle Kinematic Parameter Estimator (SA-RAKPE), pp. 456-461.

Brunker, Alexander	Daimler AG
Frey, Michael	Karlsruhe Inst. of Tech. Inst. of Vehicle System T
Gauterin, Frank	Inst. of Vehicle System Tech. Karlsruhe Inst. Te
Wohlgemuth, Thomas	Daimler AG

15:50-17:20	MoDT2.2
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Boosting Performance of Map Matching Algorithms by Parallelization on Graphics Processors, pp. 462-467.

Auer, Markus	Daimler AG
Rehborn, Hubert	Daimler
Molzahn, Sven-Eric	Daimler AG
Bogenberger, Klaus	BMW

15:50-17:20	MoDT2.3
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Monocular Localization in Urban Environments Using Road Markings, pp. 468-474.

Lu, Yan	Honda Res. Inst. USA
Huang, Jiawei	Honda Res. Inst
Chen, Yi-Ting	Univ. of California, Merced
Heisele, Bernd	Honda Res. Inst. US

15:50-17:20	MoDT2.4
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Local Elevation Mapping for Automated Vehicles Using Lidar Ray Geometry and Particle Filters, pp. 475-480.

Stiens, Kai	BMW Group
Keilhacker, Johannes	BMW Group
Tanzmeister, Georg	BMW Group Res. and Tech
Wollherr, Dirk	Tech. Univ. München

15:50-17:20	MoDT2.4
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Roadway Feature Mapping from Point Cloud Data: A Graph-Based Clustering Approach, pp. 481-486.

Billah, Mohammad	Univ. of California, Riverside
Maskooki, Arash	Univ. of California, Riverside
Rahman, Farzana	Univ. of Calofornia, Riverside
Farrell, Jay	Univ. of California-Riverside

15:50-17:20	MoDT2.5
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3D Point Cloud Map Based Vehicle Localization Using Stereo Camera, pp. 487-492.

Xu, Yuquan	Toyota Tech. Inst
John, Vijay	Toyota Tech. Inst
Mita, Seiichi	Toyota Tech. Inst
Tehrani, Hossein	Denso

Ishimaru, Kazuhisa	Nippon Soken Inc
Nishino, Sakiko	Nippon Soken Inc
15:50-17:20	MoDT2.6
<i>Monocular Localization within Sparse Voxel Maps</i> , pp. 493-498.	
Wong, David Robert	Nagoya Univ
Kawanishi, Yasutomo	Nagoya Univ
Deguchi, Daisuke	Nagoya Univ
Ide, Ichiro	Nagoya Univ
Murase, Hiroshi	Nagoya Univ
15:50-17:20	MoDT2.6
<i>Real-Time Lane Detection and Forward Collision Warning System Based on Stereo Vision</i> , pp. 499-504.	
Song, Wenjie	Beijing Inst. of Tech
Fu, Mengyin	Beijing Inst. of Tech
Yang, Yi	Beijing Inst. of Tech
Wang, Meiling	Beijing Inst. of Tech
Wang, Xinyu	Beijing Inst. of Tech
Kornhauser, Alain	Princeton Univ
15:50-17:20	MoDT2.7
<i>Multi-Vehicles Localization by Using a Georeferenced Map and a Top-Down Approach for Automatic Guidance</i> , pp. 505-510.	
Aufrere, Romuald	Clermont Auvergne Univ
Delobel, Laurent	Univ. Blaise PASCAL
Alizon, Serge Alizon	Inst. Pascal
Lelong, Gérald	Inst. Pascal
Chapuis, Roland	Inst. Pascal
15:50-17:20	MoDT2.9
<i>Along-Track Localization for Cooperative Autonomous Vehicles</i> , pp. 511-516.	
Héry, Elwan	Univ
Xu, Philippe	Univ. of Tech. of Compiegne
Bonnifait, Philippe	Univ. of Tech. of Compiegne

MoDT3	Catalina
Human Factors and Human Machine Interaction (Interactive Session)	
Chair: Chan, Ching-Yao	ITS, Univ. of California at Berkeley
15:50-17:20	MoDT3.1
<i>Analysis of Individual Driver Velocity Prediction Using Data-Driven Driver Models with Environmental Features</i> , pp. 517-522.	
Ziegmann, Johannes	Tech. Hochschule Ingolstadt
Endisch, Christian	Tech. Hochschule Ingolstadt
Shi, Jiequing	Tech. Univ. of Munich
Schnörer, Tobias	Audi Ag
15:50-17:20	MoDT3.2
<i>Incremental Cross-Modality Deep Learning for Pedestrian Recognition</i> , pp. 523-528.	
Pop, Danut Ovidiu	INRIA Paris, France; INSA Rouen, France; Babes Bolyai Univ
Rogozan, Alexandrina	LITIS
Nashashibi, Fawzi	INRIA
Bensrhair, Abdelaziz	INSA De Rouen
15:50-17:20	MoDT3.3
<i>Building Driver's Trust in Lane Change Assistance Systems by Adapting to Driver's Uncertainty States</i> , pp. 529-534.	
Yan, Fei	Univ. of Oldenburg

Eilers, Mark	OFFIS E.v
Luedtke, Andreas	OFFIS-Inst. for Information Tech
Baumann, Martin	Ulm Univ
15:50-17:20	MoDT3.4
<i>Forward Collision Avoidance Systems Considering Driver's Driving Behavior Recognized by Gaussian Mixture Model</i> , pp. 535-540.	
Su, Chen	Jilin Univ
Deng, Weiwen	Jilin Univ
Sun, Hao	Jilin University
Wu, Jian	State Key Lab. of Automotive Simulation and Control of Jil
Sun, Bohua	State Key Lab. of Automotive Simulation and Control of Jil
Yang, Shun	Jilin Univ. Coll. of Automotive Engineering
15:50-17:20	MoDT3.5
<i>Privacy and Initial Information in Automated Driving – Evaluation of Information Demands and Data Sharing Concerns</i> , pp. 541-546.	
Josten, Johanna	RWTH Aachen Univ
Schmidt, Teresa	RWTH Aachen Univ
Philipsen, Ralf	RWTH Aachen Univ
Eckstein, Lutz	RWTH Aachen Univ
Ziefle, Martina	RWTH Aachen Univ
15:50-17:20	MoDT3.6
<i>Supporting Vulnerable Drivers with Rheumatism</i> , pp. 547-552.	
Liu, Shuo	Tongji Univ
Guo, Jingqiu	The Univ. of Western Australia
Van Rensburg, Hendrik	Hobart Medical Centre
Wang, Yibing	Zhejiang Univ
Liu, Yan	Tongji Univ
15:50-17:20	MoDT3.7
<i>A Maximum Likelihood Method for Driver-Specific Critical-Gap Estimation</i> , pp. 553-558.	
Orth, Dennis	Ruhr-Univ. Bochum, Inst. of Communication Acoustics
Kolossa, Dorothea	Ruhr-Univ. Bochum, Inst. of Communication Acoustics
Sarria-Paja, Milton	Inst. National De La Recherche Scientifique (INRS-EMT)
Schaller, Kersten	Frankfurt Univ. of Applied Sciences
Pech, Andreas H.	Frankfurt Univ. of Applied Sciences
Heckmann, Martin	Honda Res. Inst. Europe
15:50-17:20	MoDT3.8
<i>Navigation-Orientated Natural Spoken Language Understanding for Intelligent Vehicle Dialogue</i> , pp. 559-564.	
Zheng, Yang	Univ. of Texas at Dallas
Liu, Yongkang	Univ. of Texas at Dallas
Hansen, John	Univ. of Texas at Dallas
15:50-17:20	MoDT3.9
<i>Cross-Regional Study on Driver Response Behavior Patterns and System Acceptance with Triggered Forward Collision Warning</i> , pp. 565-570.	
Liao, Yuan	Chalmers Univ. of Tech
Duan, Lian	Chalmers Univ. of Tech
Wang, Min Juan	Chalmers Univ. of Tech
Chen, Fang	Chalmers Univ. of Tech

15:50-17:20	MoDT3.10
<i>Public Attitudes towards Autonomous Mini Buses Operating in Real Conditions in a Hellenic City</i> , pp. 571-576.	
Portouli, Evangelia	Inst. of Communication and Computer Systems
Karaseitanidis, Ioannis	Inst. of Communication & Computer Systems
Lytrivis, Panagiotis	Inst. of Comm. & Comp. Syst
Amditis, Angelos	Inst. of Communications and Computer Systems
Raptis, Odysseas	E-TRIKALA SA
Karaberi, Xristina	E-TRIKALA SA
MoDT4	Redondo Salon 1
Advanced Driver Assist Systems - 1 (Interactive Session)	
Chair: Lu, Meng	Dynniq Nederland B.V
15:50-17:20	MoDT4.1
<i>Model-Based Evaluation of Practical Sensor Noise Impacts in Articulated Vehicle Driving Scenarios</i> , pp. 577-582.	
Fuchs, Christian	Univ. of Koblenz-Landau
Knopp, Benjamin	Univ. of Koblenz-Landau
Zoebel, Dieter	Univ. Koblenz-Landau
Paulus, Dietrich	Univ. Koblenz-Landau
15:50-17:20	MoDT4.2
<i>Detection and Recognition of Traffic Signs Inside the Attentional Visual Field of Drivers</i> , pp. 583-588.	
Zabihi, Seyedjamal	Univ. of Western Ontario
Zabihi, Seyed Mohsen	Univ. of Western Ontario
Beauchemin, Steven	The Univ. of Western Ontario
Bauer, Michael	The Univ. of Western Ontario
15:50-17:20	MoDT4.3
<i>Assessment of Automated Driving Systems Using Real-Life Scenarios</i> , pp. 589-594.	
de Gelder, Erwin	TNO
Paardekooper, Jan-Pieter	TNO
15:50-17:20	MoDT4.4
<i>Driving Pattern Fusion Using Dempster-Shafer Theory for Fuzzy Driving Risk Level Assessment</i> , pp. 595-599.	
Gunduz, Gultekin	Galatasaray Univ
Yaman, Cagdas	Galatasaray Univ
Peker, Ufuk A	Infotech Inc
Acarman, Tankut	Galatasaray Univ
15:50-17:20	MoDT4.5
<i>The Effect of Haptic Guidance on Driver Steering Performance During Curve Negotiation with Limited Visual Feedback</i> , pp. 600-605.	
Wang, Zheng	The Univ. of Tokyo
Zheng, Rencheng	The Univ. of Tokyo
Kaizuka, Tsutomu	The Univ. of Tokyo
Nakano, Kimihiko	Univ. of Tokyo
15:50-17:20	MoDT4.6
<i>An Efficient Vision-Based Traffic Light Detection and State Recognition for Autonomous Vehicles</i> , pp. 606-611.	
Saini, Sanjay	SMR Automotive Systems India Limited
Satya Kumar, Nikhil	SMR Automotive Systems India Limited
Konda, Krishna Reddy	SMR Automotive India Ltd

Bharadwaj, Harish	SMR Automotive Systems India Limited
Narayanan, Ganeshan	SMR Automotive Systems India Limited
15:50-17:20	MoDT4.7
<i>Energy Constrained Forward Collision Warning System with a Single Camera</i> , pp. 612-617.	
Lee, Seung-Hyun	Kookmin Univ
Kim, TaeDong	Kookmin Univ
Yi, Kang	Handong Global Univ
Jung, Kyeong-Hoon	Kookmin Univ
15:50-17:20	MoDT4.8
<i>Intervention Minimized Semi-Autonomous Control Using Decoupled Model Predictive Control</i> , pp. 618-623.	
Kim, Hayoung	Hanyang Univ
Cho, Jeongmin	Hanyang Univ
Kim, Dongchan	Hanyang Univ
Huh, Kunsoo	Hanyang Univ
MoDT5	Redondo Salon 2&3
Cooperative Systems -1 (Interactive Session)	
Chair: Chen, Yaobin	Purdue School of Engineering and Tech. IUPUI
15:50-17:20	MoDT5.1
<i>Estimation of Collective Maneuvers through Cooperative Multi-Agent Planning</i> , pp. 624-631.	
Schulz, Jens	BMW Group
Hirsenkorn, Kira	BMW Group
Löchner, Julian	BMW Group
Werling, Moritz	BMW Group Forschung Und Tech. GmbH
Burschka, Darius	Tech. Univ. Munich
15:50-17:20	MoDT5.2
<i>Spatially-Partitioned Environmental Representation and Planning Architecture for On-Road Autonomous Driving</i> , pp. 632-639.	
Zhan, Wei	Univ. of California, Berkeley
Chen, Jianyu	UC Berkeley
Chan, Ching-Yao	ITS, Univ. of California at Berkeley
Liu, Changliu	Univ. of California, Berkeley
Tomizuka, Masayoshi	Univ. of California at Berkeley
15:50-17:20	MoDT5.3
<i>Design of Automated Merging Control by Minimizing Decision Entropy of Drivers on Main Lane</i> , pp. 640-646.	
Okuda, Hiroyuki	Nagoya Univ
Harada, Kota	Nagoya Univ
Suzuki, Tatsuya	Nagoya Univ
Saigo, Shintaro	TOYOTA MOTOR Corp
Inoue, Satoshi	TOYOTA MOTOR Corp
15:50-17:20	MoDT5.4
<i>Queue Length Estimation at Isolated Intersections Based on Intelligent Vehicle Infrastructure Cooperation Systems</i> , pp. 655-660.	
Xu, Huile	Tsinghua Univ
Ding, Jishiyu	Tsinghua Univ
Zhang, Yi	Tsinghua Univ
Hu, Jianming	Tsinghua
15:50-17:20	MoDT5.4

Driving Strategy Selection for Cooperative Vehicles Using Maneuver Templates, pp. 647-654.

Manzinger, Stefanie	Tech. Univ. München
Leibold, Marion	Tech. Univ. München
Althoff, Matthias	Tech. Univ. München

15:50-17:20 MoDT5.5

Multi Vehicle Trajectory Coordination for Automated Parking, pp. 661-666.

Kessler, Tobias	Fortiss GmbH
Knoll, Alois	Tech. Univ. München

15:50-17:20 MoDT5.6

A Platoon-Based Intersection Management System for Autonomous Vehicles, pp. 667-672.

Bashiri, Self	Univ. of Virginia
Fleming, Cody	Univ. of Virginia

15:50-17:20 MoDT5.7

Cooperative Driving Using a Hierarchy of Mixed-Integer Programming and Tracking Control, pp. 673-678.

Eilbrecht, Jan	Univ. of Kassel
Stursberg, Olaf	Univ. of Kassel

15:50-17:20 MoDT5.8

Improving Communication-Based Intersection Safety by Cooperative Relaying with Joint Decoding, pp. 679-684.

Kühlmorgen, Sebastian	Tech. Univ. Dresden
González, Arturo	TU Dresden
Festag, Andreas	Tech. Univ. Dresden
Fettweis, Gerhard	TU Dresden

15:50-17:20 MoDT5.9

Deep Neural Networks for Markovian Interactive Scene Prediction in Highway Scenarios, pp. 691-698.

Lenz, David	Fortiss GmbH
Diehl, Frederik	Fortiss GmbH
Truong Le, Michael	Fortiss GmbH
Knoll, Alois	Tech. Univ. München

15:50-17:20 MoDT5.9

Distributed Robust Vehicle State Estimation, pp. 685-690.

Hashemi, Ehsan	Univ. of Waterloo
Pirani, Mohammad	Univ. of Waterloo
Fidan, Baris	Univ. of Waterloo
Khajepour, Amir	Univ. of Waterloo
Chen, Shih-Ken	General Motors Company
Litkouhi, Bakhtiar	General Motor R&D Center

Technical Program for Tuesday June 13, 2017

TuAT0	Peninsula and Pacific
Autonomous Vehicles: Control Strategies (Regular Session)	
Chair: Barth, Matthew	Univ. of California-Riverside
09:00-09:20	TuAT0.1
Framework for Simulation-Based Lane Change Control for Autonomous Vehicles, pp. 699-704.	
Choi, Seongjin	Korea Advanced Inst. of Science and Tech. KAIST
Yeo, Hwasoo	KAIST
09:20-09:40	TuAT0.2
Towards Secure and Safe Applified Automated Vehicles, pp. 705-711.	
Jia, Yunhan Jack	Univ. of Michigan, Ann Arbor
Zhao, Ding	Univ. of Michigan, Ann Arbor
Chen, Qi Alfred	Univ. of Michigan, Ann Arbor
Mao, Z. Morley	Univ. of Michigan, Ann Arbor
09:40-10:00	TuAT0.3
Motion Planning under Perception and Control Uncertainties with Space Exploration Guided Heuristic Search, pp. 712-718.	
Chen, Chao	Fortiss GmbH
Rickert, Markus	Fortiss GmbH
Knoll, Alois	Tech. Univ. München
10:00-10:20	TuAT0.4
CommonRoad: Composable Benchmarks for Motion Planning on Roads, pp. 719-726.	
Althoff, Matthias	Tech. Univ. München
Koschi, Markus	Tech. Univ. of Munich
Manzinger, Stefanie	Tech. Univ. München
10:20-10:40	TuAT0.5
Entering Crossroads with Blind Corners. a Safe Strategy for Autonomous Vehicles, pp. 727-732.	
Hoermann, Stefan	Univ. of Ulm
Kunz, Felix	Univ. Ulm
Nuss, Dominik	Univ. of Ulm
Reuter, Stephan	Univ. of Ulm
Dietmayer, Klaus	Univ. of Ulm

TuBT1		Peninsula and Pacific
Vehicle Detection and Tracking (Interactive Session)		
Chair: Gao, Yang		Carnegie Mellon Univ
11:00-12:30		TuBT1.1
Deep Edge-Color Invariant Features for 2D/3D Car Fine-Grained Classification, pp. 733-738.		
Chabot, Florian		CEA
Chaouch, Mohamed		CEA
Rabarisoa, Jaonary		CEA
Teulière, Céline		Inst. Pascal
Chateau, Thierry		Univ. of Clermont-Ferrand
11:00-12:30		TuBT1.2
Monocular Outlier Detection for Visual Odometry, pp. 1693-1699.		
Buczko, Martin		TU Darmstadt
Willert, Volker		TU Darmstadt
11:00-12:30		TuBT1.2
Automotive LIDAR Objects Detection and Classification Algorithm		

Using the Belief Theory, pp. 739-744.

Magnier, Valentin	IFSTTAR
Gruyer, Dominique	IFSTTAR
Godelle, Jérôme	RENAULT
11:00-12:30	TuBT1.3
<i>XDvision: Dense Outdoor Perception for Autonomous Vehicles</i> , pp. 745-750.	
Romero Cano, Victor Adolfo	Univ. of Sydney
Vignard, Nicolas	Toyota Motor Europe
Laugier, Christian	INRIA
11:00-12:30	TuBT1.4
<i>Wide-Residual-Inception Networks for Real-Time Object Detection</i> , pp. 751-757.	
Lee, Youngwan	ETRI
Cui, Xuenan	INHA Univ
Hale, Kim	Inha Univ
Park, Eunsoo	Inha Univ
Kim, Huieun	INHA Univ
11:00-12:30	TuBT1.5
<i>A Fast Implementation of the Labeled Multi-Bernoulli Filter Using Gibbs Sampling</i> , pp. 758-765.	
Reuter, Stephan	Univ. of Ulm
Danzer, Andreas	Ulm Univ
Stuebler, Manuel	Ulm Univ
Scheel, Alexander	Univ. of Ulm
Granstrom, Karl	Chalmers Univ. of Tech
11:00-12:30	TuBT1.6
<i>Online Vehicle Detection Using Haar-Like, LBP and HOG Feature Based Image Classifiers with Stereo Vision Preselection</i> , pp. 766-771.	
Neumann, Daniel	Freie Univ. Berlin
Langner, Tobias	Freie Univ. Berlin
Ulbrich, Fritz	Freie Univ. Berlin
Spitta, Dorothee	Freie Univ. Berlin
Goehring, Daniel	Freie Univ. Berlin
11:00-12:30	TuBT1.7
<i>Feature-Based Lateral Position Estimation of Surrounding Vehicles Using Stereo Vision</i> , pp. 772-777.	
Lee, Elijah S.	Korea Advanced Inst. of Science and Tech. (KAIST)
Kum, Dongsuk	Korea Advanced Inst. of Science & Tech
11:00-12:30	TuBT1.8
<i>Scale Optimization for Full-Image-CNN Vehicle Detection</i> , pp. 778-784.	
Gao, Yang	Carnegie Mellon Univ
Guo, Shouyan	Carnegie Mellon Univ
Huang, Kaimin	Carnegie Mellon Univ
Chen, Jiaxin	SYSU-CMU Joint Inst. of Engineering (JIE)
Gong, Qian	Carnegie Mellon Univ. Yat-Sen Univ
Zou, Yang	Carnegie Mellon Univ
Bai, Tong	Carnegie Mellon Univ
Overett, Gary Mark	Sun Yat-Sen Univ. - Carnegie Mellon Univ. - Joint Inst
11:00-12:30	TuBT1.9

Offline Reconstruction of Missing Vehicle Trajectory Data from 3D LIDAR, pp. 785-790.

Sazara, Cem	Old Dominion Univ
Vatani Nezafat, Reza	Old Dominion Univ
Cetin, Mecit	Old Dominion Univ

TuBT2	Bay
Motion Planning 2 (Interactive Session)	
Chair: Yang, Yi	Beijing Inst. of Tech

11:00-12:30	TuBT2.1
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Model Predictive Control Based Trajectory Generation for Autonomous Vehicles - an Architectural Approach, pp. 791-798.

Nolte, Marcus	Tech. Univ. Braunschweig
Rose, Marcel	TU Braunschweig
Stolte, Torben	Tech. Univ. Braunschweig
Maurer, Markus	TU Braunschweig

11:00-12:30	TuBT2.2
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An Efficient Decision and Planning Method for High Speed Autonomous Driving in Dynamic Environment, pp. 799-804.

Zhang, Kai	Beijing Inst. of Tech
Fu, Mengyin	Beijing Inst. of Tech
Yang, Yi	Beijing Inst. of Tech
Shang, Songtian	Beijing Inst. of Tech
Wang, Meiling	Beijing Inst. of Tech

11:00-12:30	TuBT2.3
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The Kinematic Bicycle Model: A Consistent Model for Planning Feasible Trajectories for Autonomous Vehicles?, pp. 805-811.

Polack, Philip	Mines ParisTech
Altché, Florent	MINES ParisTech
d'Andréa-Novel, Brigitte	Mines-ParisTech
de La Fortelle, Arnaud	MINES ParisTech

11:00-12:30	TuBT2.4
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Lattice-Based Motion Planning for a General 2-Trailer System, pp. 812-817.

Ljungqvist, Oskar	Linköping Univ
Evestedt, Niclas	Linköpings Univ
Cirillo, Marcello	Scania
Axehill, Daniel	Linköping Univ
Holmer, Olov	Linköping Univ

11:00-12:30	TuBT2.5
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Belief State Planning for Autonomously Navigating Urban Intersections, pp. 818-823.

Bouton, Maxime	Stanford Univ
Cosgun, Akansel	Honda Res. Inst. (HRI)
Kochenderfer, Mykel	Stanford Univ

11:00-12:30	TuBT2.6
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Boundary Layer Heuristic for Search-Based Nonholonomic Path Planning in Maze-Like Environments, pp. 824-829.

Liu, Changliu	Univ. of California, Berkeley
Wang, Yizhou	Univ. of California Berkeley
Tomizuka, Masayoshi	Univ. of California at Berkeley

11:00-12:30	TuBT2.7
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Smooth Path Planning for Urban Autonomous Driving Using OpenStreetMaps, pp. 830-835.

Artuñedo, Antonio	Centre for Automation and Robotics (CSIC-UPM)
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Godoy, Jorge	Centre for Automation and Robotics (UPM-CSIC)
Villagra, Jorge	Centre for Automation and Robotics (CSIC-UPM)

11:00-12:30	TuBT2.8
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Guaranteeing Persistent Feasibility of Model Predictive Motion Planning for Autonomous Vehicles, pp. 836-841.

Jalalmaab, Mehdi	Univ. of Waterloo
Fidan, Baris	Univ. of Waterloo
Jeon, Soo	Univ. of Waterloo
Falcone, Paolo	Chalmers Univ. of Tech

TuBT3	Catalina
Driver State and Intent Recognition -1 (Interactive Session)	

Chair: Garcia, Fernando	Univ. Carlos III De Madrid
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11:00-12:30	TuBT3.1
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On Generalizing Driver Gaze Zone Estimation Using Convolutional Neural Networks, pp. 842-847.

Vora, Sourabh	Univ. of California, San Diego
Rangesh, Akshay	Univ. of California, San Diego
Trivedi, Mohan M.	Univ. of California at San Diego

11:00-12:30	TuBT3.3
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Probabilistic Inference of Traffic Participants' Lane Change Intention for Enhancing Adaptive Cruise Control, pp. 848-853.

Lee, Donghan	Univ. of California, Berkeley
Hansen, Andreas	Univ. of California, Berkeley
Hedrick, J. Karl	Univ. of California, Berkeley

11:00-12:30	TuBT3.4
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A Model-Driven Tool for Getting Insights into Car Drivers' Monitoring Behavior, pp. 854-861.

Feuerstack, Sebastian	OFFIS Inst. for Information Tech
Wortelen, Bertram	C.v.O. Univ. Oldenburg

11:00-12:30	TuBT3.6
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Real-Time Hand Posture and Gesture-Based Touchless Automotive User Interface Using Deep Learning, pp. 862-867.

John, Vijay	Toyota Tech. Inst
Umetsu, Makoto	Toyota Tech. Inst
Boyalı, Ali	Toyota Tech. Inst
Mita, Seiichi	Toyota Tech. Inst
Imanishi, Masayuki	Nippon Soken
Sanma, Norio	Nippon Soken
Shibata, Syunsuke	Nippon Soken

11:00-12:30	TuBT3.7
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Real-Time Driving Manoeuvre Prediction Using IO-HMM and Driver Cephalo-Ocular Behaviour, pp. 868-873.

Zabihi, Seyed Mohsen	Univ. of Western Ontario
Beauchemin, Steven	The Univ. of Western Ontario
Bauer, Michael	The Univ. of Western Ontario

11:00-12:30	TuBT3.8
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A Computational Framework for Driver's Visual Attention Using a Fully Convolutional Architecture, pp. 880-887.

Tawari, Ashish	Honda Res. Inst. USA
Kang, Byeongkeun	UC San Diego

11:00-12:30	TuBT3.8
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Vehicle Speed Prediction Using a Cooperative Method of Fuzzy Markov Model and Autoregressive Model, pp. 874-879.

Jing, Junbo	The Ohio State Univ. Department of Electrical and Computer
Filev, Dimitar	Ford Res. & Advanced Engineering
Kurt, Arda	The Ohio State Univ
Ozayat, Engin	The Ohio State Univ
Michelini, John	Ford Res. and Innovation Center
Ozguner, Umit	Ohio State Univ

11:00-12:30 TuBT3.9

Driver Route and Destination Prediction, pp. 888-893.

Panahandeh, Ghazaleh Volvo Cars

11:00-12:30 TuBT3.10

Proactive Driving Modeling in Blind Intersections Based on Expert Driver Data, pp. 894-900.

Morales Saiki, Luis Yoichi	Nagoya Univ
Yoshihara, Yuki	Nagoya Univ
Akai, Naoki	Nagoya Univ
Takeuchi, Eijiro	Nagoya Univ
Ninomiya, Yoshiki	Nagoya Univ

11:00-12:30 TuBT3.11

Modeling Driver Behavior at Roundabouts: Results from a Field Study, pp. 901-906.

Zhao, Min	Inst. of Transportation Systems, German Aerospace Center (DLR)
Kaethner, David	German Aerospace Center (DLR)
Jipp, Meike	German Aerospace Center (DLR)
Soeffker, Dirk	Univ. of Duisburg-Essen
Lemmer, Karsten	German Aerospace Center

TuBT4 Redondo Salon 1 **Advanced Driver Assist Systems - 2 (Interactive Session)**

Chair: Zhan, Wei Univ. of California, Berkeley

11:00-12:30 TuBT4.1

Intelligent Driving Assistant Based on Accident Risk Maps Analysis and Intelligent Driving Diagnosis, pp. 907-912.

Quintero M., Christian G.	Univ. Del Norte
Cuervo Pinilla, Andres C.	Univ. Del Norte

11:00-12:30 TuBT4.2

Learning Where to Attend Like a Human Driver, pp. 913-918.

Palazzi, Andrea	Univ. of Modena and Reggio Emilia
Solera, Francesco	Univ. of Modena and Reggio Emilia
Calderara, Simone	Univ. of Modena and Reggio Emilia
Alletto, Stefano	Univ. of Modena and Reggio Emilia
Cucchiara, Rita	Univ. of Modena and Reggio Emilia

11:00-12:30 TuBT4.3

Evaluation of a Semi-Autonomous Lane Departure Correction System Using Naturalistic Driving Data, pp. 919-925.

Zhao, Ding	Univ. of Michigan, Ann Arbor
Wang, Wenshuo	Univ. of California at Berkeley
LeBlanc, David	Univ. of Michigan Transportation Res. Inst

11:00-12:30 TuBT4.4

A Parallel Autonomy Research Platform, pp. 926-933.

Naser, Felix	MIT
Dorhout, David	MIT
Proulx, Stephen	MIT
Pendleton, Scott	National Univ. of Singapore
Andersen, Hans	National Univ. of Singapore
Schwarting, Wilko	ETH Zürich, Volkswagen AG Group Res

Paull, Liam	MIT
Alonso-Mora, Javier	Delft Univ. of Tech
Ang, Marcelo	National Univ. of Singapore
Karaman, Sertac	Massachusetts Inst. of Tech
Tedrake, Russ	MIT
Leonard, John	MIT
Rus, Daniela	MIT

11:00-12:30 TuBT4.5

Master General Parking Skill Via Deep Learning, pp. 934-939.

Lin, Yi-Lun	Chinese Acad. of Sciences
Li, Li	Tsinghua Univ
Dai, Xing-Yuan	Chinese Acad. of Sciences
Zheng, Nanning	Xi'an Jiaotong Univ
Wang, Fei-Yue	Chinese Acad. of Sciences

11:00-12:30 TuBT4.7

Design of a Lane Change Driver Assistance System, with Implementation and Testing on Motorbike, pp. 940-945.

Amodio, Alessandro	Pol. Di Milano
Panzani, Giulio	Pol. Di Milano
Savaresi, Sergio	Pol. Di Milano

11:00-12:30 TuBT4.8

A Co-Benefit and Tradeoff Evaluation Framework for Connected and Automated Vehicle Applications, pp. 946-951.

Tian, Danyang	Univ. of California, Riverside
Wu, Guoyuan	Univ. of California-Riverside
Boriboonsomsin, Kanok	Univ. of California-Riverside
Barth, Matthew	Univ. of California-Riverside

11:00-12:30 TuBT4.9

Convoy Tracking for ADAS on Embedded GPUs, pp. 952-958.

Fickenscher, Jörg	Friedrich-Alexander Univ. Erlangen-Nürnberg (FAU)
Reinhart, Sebastian	Friedrich-Alexander Univ. Erlangen-Nürnberg (FAU)
Bouzouraa, Mohamed Essayed	Audi Ag
Hannig, Frank	Friedrich-Alexander Univ. Erlangen-Nürnberg (FAU)
Teich, Jürgen	Univ. of Erlangen-Nuremberg

TuBT5 Redondo Salon 2&3 **Cooperative Systems -2 (Interactive Session)**

Chair: Van Nunen, Ellen TNO

11:00-12:30 TuBT5.1

Truck Platooning Application, pp. 959-964.

Ellwanger, Simon	Daimler AG
Wohlfarth, Enrico	Daimler AG

11:00-12:30 TuBT5.2

Centralized Cooperative Intersection Control under Automated

Vehicle Environment, pp. 965-970.

Ding, Jishiyu	Tsinghua Univ
Xu, Huile	Tsinghua Univ
Hu, Jianming	Tsinghua
Zhang, Yi	Tsinghua Univ

11:00-12:30 TuBT5.3

A Command Governor Approach for Platooning Applications, pp. 971-977.

de Castro, Ricardo	German Aerospace Center (DLR)
Brembeck, Jonathan	German Aerospace Center (DLR)

11:00-12:30 TuBT5.5

Efficient Graph-Based V2V Free Space Fusion, pp. 978-985.

Luthardt, Stefan	Tech. Univ. Darmstadt
Han, Chao	Tech. Univ. Darmstadt
Willert, Volker	TU Darmstadt
Schreier, Matthias	Continental Teves AG & Co. Ohg

11:00-12:30 TuBT5.6

DSRC-Based End of Queue Warning System, pp. 986-991.

Liu, Yang	Beijing Jiaotong Univ
Zhang, Wei-Bin	Univ. of California at Berkeley
Wang, Zhong-li	Beijing Jiaotong Univ
Chan, Ching-Yao	ITS, Univ. of California at Berkeley

11:00-12:30 TuBT5.7

3D Driving Simulator with VANET Capabilities to Assess Cooperative Systems: 3DSimVanet, pp. 992-997.

Michaeler, Florian	Univ. of Applied Sciences Tech. Wien
Olaverri-Monreal, Cristina	UAS Tech. Wien

11:00-12:30 TuBT5.8

Distributed Algorithm for Collision Avoidance at Road Intersections in the Presence of Communication Failures, pp. 998-1005.

Savic, Vladimir	Chalmers Univ. of Tech
Schiller, Elad Michael	Chalmers Univ. of Tech
Papatriantafilou, Marina	Chalmers Univ. of Tech

11:00-12:30 TuBT5.10

Evaluation of Safety Indicators for Truck Platooning, pp. 1006-1011.

Van Nunen, Ellen	TNO
Esposito, Francesco	TNO
Khabbaz Saberi, Arash	TNO
Paardekooper, Jan-Pieter	TNO

TuCT0 Peninsula and Pacific
Static Object Detection (Regular Session)

Chair: Zeng, Daniel Univ. of Arizona

13:30-15:10 TuCT0.1

Fast LIDAR-Based Road Detection Using Fully Convolutional Neural Networks, pp. 1012-1017.

Caltagirone, Luca	Chalmers Univ. of Tech
Scheidegger, Samuel	Autoliv Development AB
Svensson, Lennart	Chalmers Univ. of Tech
Wahde, Mattias	Chalmers Univ. of Tech

13:30-15:10 TuCT0.2

Detecting Unexpected Obstacles for Self-Driving Cars: Fusing Deep Learning and Geometric Modeling, pp. 1018-1025.

Ramos, Sebastian Daimler AG R&D

Gehrig, Stefan	Daimler AG
Pinggera, Peter	Daimler AG
Franke, Uwe	Daimler AG
Rother, Carsten	TU Dresden

13:30-15:10 TuCT0.3

Feature Analysis and Selection for Training an End-To-End Autonomous Vehicle Controller Using Deep Learning Approach, pp. 1026-1031.

Yang, Shun	Jilin Univ. Coll. of Automotive Engineering
Wang, Wenshuo	Univ. of California at Berkeley
Liu, Chang	Univ. of California, Berkeley
Deng, Weiwen	Jilin Univ
Hedrick, J. Karl	Univ. of California, Berkeley

13:30-15:10 TuCT0.4

From Corners to Rectangles - Directional Road Sign Detection Using Learned Corner Representations, pp. 1032-1037.

Wenzel, Thomas	Robert Bosch Car Multimedia GmbH
Chou, Ta-Wei	Hochschule Esslingen
Brueggert, Steffen	Robert Bosch GmbH
Denzler, Joachim	Friedrich-Schiller-Univ. Jena

13:30-15:10 TuCT0.5

Multi-Camera Traffic Light Recognition Using a Classifying Labeled Multi-Bernoulli Filter, pp. 1038-1044.

Bach, Martin	Ulm Univ
Reuter, Stephan	Univ. of Ulm
Dietmayer, Klaus	Univ. of Ulm

TuDT1 Peninsula and Pacific
Moving Object Detection and Tracking -2 (Interactive Session)

Chair: Morris, Brendan Univ. of Nevada, Las Vegas

15:30-17:00 TuDT1.1

Footprint-Based Classification of Road Moving Objects Using Occupancy Grids, pp. 1045-1050.

Alonso, Victor	Centre for Automation and Robotics (UPM-CSIC)
Correal, Raul	Ixion Industry & Aerospace SL
Villagra, Jorge	Centre for Automation and Robotics (CSIC-UPM)

15:30-17:00 TuDT1.2

Semantically Aware Multilateral Filter for Depth Upsampling in Automotive LiDAR Point Clouds, pp. 1051-1056.

Dimitrievski, Martin	Imec-IPI-Ghent Univ
Veelaert, Peter	Ghent Univ
Philips, Wilfried	Ghent Univ. IMinds

15:30-17:00 TuDT1.3

Object Tracking Based on Evidential Dynamic Occupancy Grids in Urban Environments, pp. 1057-1063.

Steyer, Sascha	BMW Group
Tanzmeister, Georg	BMW Group Res. and Tech
Wollherr, Dirk	Tech. Univ. München

15:30-17:00 TuDT1.4

Cyclists' Starting Behavior at Intersections, pp. 1064-1070.

Hubert, Andreas	Univ. of Applied Science Aschaffenburg
Zernetsch, Stefan	Univ. of Applied Sciences

	Aschaffenburg
Doll, Konrad	Univ. of Applied Sciences Aschaffenburg
Sick, Bernhard	Univ. of Kassel
15:30-17:00	TuDT1.5
<i>Mono-Vision Based Moving Object Detection in Complex Traffic Scenes</i> , pp. 1071-1077.	
Fremont, Vincent	Univ. De Tech. De Compiègne
Rodriguez, Sergio	Univ. Paris Saclay
Wang, Bihao	Univ. De Tech. De Compiègne
15:30-17:00	TuDT1.6
<i>Robust Vehicle Environment Reconstruction from Point Clouds for Irregularity Detection</i> , pp. 1078-1085.	
Cheikh Sidiya, Ahmed	West Virginia Univ
Bansal, Gaurav	Toyota InfoTechnology Center, USA
Shimizu, Takayuki	TOYOTA InfoTechnology Center, U.S.A., Inc
Rubaiyat, Abu Hasnat Mohammad	West Virginia Univ
Fallah, Yaser	Univ. of Central Florida
Xin, Li	West Virginia Univ
15:30-17:00	TuDT1.7
<i>Learning to Detect Dynamic Feature Points</i> , pp. 1086-1091.	
Park, Min-Gyu	Korea Electronics Tech. Inst. (KETI)
Yoon, Ju Hong	Korea Electronics Tech. Inst
Park, Jonghee	Hyundai Motor Company
Lee, Jeong-Kyun	GIST
Yoon, Kuk-Jin	GIST
15:30-17:00	TuDT1.8
<i>Efficient Tracking of Closely Spaced Objects in Depth Data Using Sequential Dirichlet Process Clustering</i> , pp. 1092-1097.	
Hoy, Michael Colin	Nanyang Tech. Univ
Dauwels, Justin	Nanyang Tech. Univ
Yuan, Junsong	Nanyang Tech. Univ
15:30-17:00	TuDT1.9
<i>Ground Estimation and Point Cloud Segmentation Using SpatioTemporal Conditional Random Field</i> , pp. 1098-1103.	
Rummelhard, Lukas	CEA
Paigwar, Anshul	INRIA (Inst. National De Recherche En Informatique Et En Auto
Negre, Amaury	CNRS, Gipsa Lab
Laugier, Christian	INRIA
15:30-17:00	TuDT1.10
<i>Detection of Valuable Left-Behind Items in Vehicle Cabins</i> , pp. 1104-1111.	
Perrett, Toby	Univ. of Bristol
Mirmehdi, Majid	Univ. of Bristol
Dias, Eduardo	Jaguar Land Rover
TuDT2	Bay
Mapping and Localization -2 (Interactive Session)	
Chair: Bonnifait, Philippe	Univ. of Tech. of Compiègne
Co-Chair: Peker, Ufuk A	Infotech Inc
15:30-17:00	TuDT2.1

<i>Multi-Modal Local Terrain Maps from Vision and LiDAR</i> , pp. 1112-1118.	
Jaspers, Hanno	Univ. of the Bundeswehr Munich
Himmelsbach, Michael	Univ. of the Bundeswehr, Munich
Wuensche, Hans Joachim Joe	Univ. BW Munich
15:30-17:00	TuDT2.2
<i>Learning Rank Reduced Interpolation with Principal Component Analysis</i> , pp. 1119-1126.	
Ochs, Matthias	Goethe Univ. Frankfurt
Bradler, Henry	Goethe Univ. Frankfurt
Mester, Rudolf	Goethe Univ. Frankfurt
15:30-17:00	TuDT2.3
<i>Handling Rolling Shutter Effects on Semi-Global Matching in Automotive Scenarios</i> , pp. 1127-1132.	
Broggi, Alberto	Univ. of Parma
Cionini, Alessandro	VisLab Srl
Ghidini, Francesca	Vislab Srl
Zani, Paolo	Univ. Degli Studi Di Parma
15:30-17:00	TuDT2.5
<i>Guided Depth Upsampling for Precise Mapping of Urban Environments</i> , pp. 1133-1138.	
Wirges, Sascha	FZI Forschungszentrum Informatik
Roxin, Björn	Student at Karlsruhe Inst. of Tech. (KIT)
Rehder, Eike	Karlsruhe Inst. of Tech
Kühner, Tilman	FZI Forschungszentrum Informatik
Lauer, Martin	Karlsruher Inst. Für Tech
15:30-17:00	TuDT2.6
<i>Automated Mosaicing for Improving Vehicle Situational Awareness in Real Time</i> , pp. 1139-1144.	
Nam, David	Cranfield Univ
Aouf, Nabil	Cranfield Univ
15:30-17:00	TuDT2.7
<i>Mapping and Localization Using Surround View</i> , pp. 1151-1156.	
Sons, Marc	Department of Measurement and Control, Karlsruhe Inst. of Te
Lauer, Martin	Karlsruher Inst. Für Tech
Keller, Christoph Gustav	Daimler AG
Stiller, Christoph	Karlsruhe Inst. of Tech
15:30-17:00	TuDT2.7
<i>Ego-Lane Estimation for Downtown Lane-Level Navigation</i> , pp. 1145-1150.	
Rabe, Johannes	Daimler AG
Hübner, Martin	Daimler AG
Necker, Marc	Daimler AG
Stiller, Christoph	Karlsruhe Inst. of Tech
15:30-17:00	TuDT2.8
<i>Real-Time Scene Flow on COTS Embedded Systems by Coarse-Grained Software Pipeline</i> , pp. 1157-1162.	
Chen, Long	Sun Yat-Sen Univ
Cui, Mingyue	Sun Yat-Sen Univ
Huang, Kai	Sun Yat-Sen Univ
Xuanyuan, Zhe	Beijing Normal Univ. Kong Baptist Univ. United In
15:30-17:00	TuDT2.9
<i>Occupancy Radar Grid</i> , pp. 1163-1168.	
Jakob, Lombacher	Daimler AG

Laudt, Kilian	Univ. of Koblenz
Hahn, Markus	Daimler AG, Group Res
Dickmann, Jürgen	Mercedes-Benz AG
Woehler, Christian	Dortmund Univ. of Tech
15:30-17:00	TuDT2.9
<i>Lane-Level Map-Matching with Integrity on High-Definition Maps</i> , pp. 1169-1174.	
Li, Franck	Univ. of Tech. of Compiegne
Bonnifait, Philippe	Univ. of Tech. of Compiegne
Ibanez Guzman, Javier	Renault S.A.S,
Zinoune, Clément	Univ. of Tech. of Compiègne, Renault SAS

TuDT3	Catalina
Novel Interfaces and Displays & Information Fusion (Interactive Session)	
Chair: Javanmardi, Mahdi	The Univ. of Tokyo
15:30-17:00	TuDT3.1
<i>Automatic Calibration of 3D Mobile Laser Scanning Using Aerial Surveillance Data for Precise Urban Mapping</i> , pp. 1175-1181.	
Javanmardi, Mahdi	The Univ. of Tokyo
Javanmardi, Ehsan	The Univ. of Tokyo
Gu, Yanlei	The Univ. of Tokyo
Kamijo, Shunsuke	The Univ. of Tokyo
15:30-17:00	TuDT3.2
<i>A Haptic-Based, Safety-Oriented, Braking Assistance System for Road Bicycles</i> , pp. 1182-1187.	
Corno, Matteo	Pol. Di Milano
D'Avico, Luca	Pol. Di Milano
Panzani, Giulio	Pol. Di Milano
Savaresi, Sergio	Pol. Di Milano
15:30-17:00	TuDT3.3
<i>A Multimodal Human-Machine Interface Enabling Situation-Adaptive Control Inputs for Highly Automated Vehicles</i> , pp. 1188-1193.	
Manawadu, Udara	Waseda Univ
Kamezaki, Mitsuhiro	Waseda Univ
Ishikawa, Masaaki	Waseda Univ
Kawano, Takahiro	Waseda Univ
Sugano, Shigeki	Waseda Univ
15:30-17:00	TuDT3.4
<i>A High-Level Road Model Information Fusion Framework and Its Application to Multi-Lane Speed Limit Inference</i> , pp. 1194-1201.	
Schreier, Matthias	Continental Teves AG & Co. Ohg
Grewé, Ralph	Continental Div. Chassis & Safety, Advanced Engineering
15:30-17:00	TuDT3.5
<i>Multi-Spectrum Superpixel Based Obstacle Detection under Vegetation Environments</i> , pp. 1202-1207.	
Zou, Nan	Zhejiang Univ
Xiang, Zhiyu	Zhejiang Univ
Zhang, Jiapeng	Zhejiang Univ
15:30-17:00	TuDT3.6
<i>Multi-Criteria Similarity Operator Based on the Belief Theory: Management of Similarity, Dissimilarity, Conflict and Ambiguities</i> , pp. 1208-1214.	
Magnier, Valentin	IFSTTAR
Gruyer, Dominique	IFSTTAR

Godelle, Jérôme	RENAULT
15:30-17:00	TuDT3.7
<i>Deployment of Serious Gaming Approach for Safe and Sustainable Mobility</i> , pp. 1215-1220.	
Dange, Gautam	Univ. Degli Studi Di Genova
Pratheep, Paranthaman	Univ. Degli Studi Di Genova
Raffero, Mattia	Objective Software GmbH
Neumeier, Stefan	Tech. Hochschule Ingolstadt
Bellotti, Francesco	Univ. Degli Studi Di Genova
Berta, Riccardo	Univ. Degli Studi Di Genova
De Gloria, Alessandro	Univ. Degli Studi Di Genova

TuDT4	Redondo Salon 1
Eco-Driving and Energy Efficient Vehicles -1 (Interactive Session)	
Chair: Meng, Joshua Huadong	UC Berkeley
15:30-17:00	TuDT4.1
<i>Deep Reinforcement Learning-Based Vehicle Energy Efficiency Autonomous Learning System</i> , pp. 1221-1226.	
Qi, Xuewei	Univ. of California, Riverside
Luo, Yadan	Univ. of California, Riverside
Wu, Guoyuan	Univ. of California-Riverside
Boriboonsomsin, Kanok	Univ. of California-Riverside
Barth, Matthew	Univ. of California-Riverside
15:30-17:00	TuDT4.2
<i>Design of the Control Strategy for a Range Extended Hybrid Vehicle by Means of Dynamic Programming Optimization</i> , pp. 1227-1234.	
Cubito, Claudio	Pol. DI TORINO
Rolando, Luciano	Pol. DI TORINO
Ferraris, Alessandro	Pol. Di Torino
Carello, Massimiliana	Pol. Di Torino - DIMEAS
Millo, Federico	Pol. DI TORINO
15:30-17:00	TuDT4.3
<i>Green Routing Fuel Saving Opportunity Assessment: A Case Study Using Large-Scale Real-World Travel Data</i> , pp. 1235-1241.	
Zhu, Lei	NREL
Holden, Jacob	NREL
Wood, Eric	NREL
Gonder, Jeffrey	National Renewable Energy Lab
15:30-17:00	TuDT4.5
<i>Improvement of Predictive Energy Efficiency Optimization Using Long Distance Horizon Estimation</i> , pp. 1242-1248.	
Guan, Tianyi	Fraunhofer IOSB
Frey, Christian	Fraunhofer IOSB
15:30-17:00	TuDT4.6
<i>Developing a Platoon-Wide Eco-Cooperative Adaptive Cruise Control (CACC) System</i> , pp. 1249-1254.	
Wang, Ziran	Univ. of California, Riverside
Wu, Guoyuan	Univ. of California-Riverside
Hao, Peng	Univ. of California, Riverside
Boriboonsomsin, Kanok	Univ. of California-Riverside
Barth, Matthew	Univ. of California-Riverside
15:30-17:00	TuDT4.7
<i>Road Friction Estimation for Connected Vehicles Using Supervised Machine Learning</i> , pp. 1255-1260.	
Panahandeh, Ghazaleh	Volvo Cars
Mohammadiha, Nasser	Volvo Cars

Ek, Erik	Chalmers
15:30-17:00	TuDT4.8
<i>Context-Adaptive Support Information for Truck Drivers: An Interview Study on Its Contents Priority</i> , pp. 1261-1266.	
Liao, Yuan	Chalmers Univ. of Tech
Chen, Fang	Chalmers Univ. of Tech
Li, Guofa	Shenzhen Univ
15:30-17:00	TuDT4.9
<i>Reduction of Pollutant Emissions of Diesel Mild Hybrid Vehicles with an Innovative Energy Management Strategy</i> , pp. 1267-1272.	
Thibault, Laurent	IFPEN
Sciarretta, Antonio	IFP
Degeilh, Philippe	IFPEN
TuDT5	Redondo Salon 2&3
Traffic Flow and Management (Interactive Session)	
Chair: Ban, Xuegang (Jeff)	Univ. of Washington
15:30-17:00	TuDT5.1
<i>Accommodating High Value-Of-Time Drivers in Market-Driven Traffic Signal Control</i> , pp. 1273-1279.	
Isukapati, Isaac	Carnegie Mellon Univ
Smith, Stephen F.	Carnegie Mellon Univ
15:30-17:00	TuDT5.2
<i>Effect of Adaptive and Cooperative Adaptive Cruise Control on Throughput of Signalized Arterials</i> , pp. 1280-1285.	
Askari, Armin	Univ. of California - Berkeley
Farias, Daniel	Univ. of California, Berkeley
Kurzhanskiy, Alex	Univ. of California, Berkeley
Varaiya, Pravin	Department of EECS, U. C. Berkeley
15:30-17:00	TuDT5.3
<i>Traffic Speed Prediction under Weekday Using Convolutional Neural Networks Concepts</i> , pp. 1286-1291.	
Song, ChangHee	Seoul National Univ
Lee, Heeyun	Seoul National Univ
Kang, Changbeom	Seoul National Univ
Cha, Suk Won	Seoul National Univ
Lee, Wonyoung	Sungkyunkwan Univ
Kim, Young-Beom	Hanyang Univ
15:30-17:00	TuDT5.4
<i>Platoon-Based Autonomous Vehicle Speed Optimization Near Signalized Intersections</i> , pp. 1292-1297.	
Faraj, Mahmoud	Univ. of Waterloo
Sancar, Feyyaz Emre	Univ. of Waterloo
Fidan, Baris	Univ. of Waterloo
15:30-17:00	TuDT5.5
<i>Another Broken Traffic Light? Reducing Traffic Congestion in Resource Constrained Environments</i> , pp. 1298-1303.	
Mathibela, Bonolo	IBM Res
15:30-17:00	TuDT5.6
<i>A Traffic Signal Control System through Anonymous Messages</i> , pp. 1304-1308.	
Ozkul, Mukremin	Epoka Univ
Domnori, Elton	Epoka Univ
15:30-17:00	TuDT5.7
<i>Towards a Collaborative Connected, Automated Driving Environment:</i>	

A Game Theory Based Decision Framework for Unprotected Left Turn Maneuvers, pp. 1309-1314.

Rahmati, Yalda	Texas A&M Univ
Talebpour, Alireza	Texas A&M Univ

15:30-17:00 TuDT5.8

Predictive Ridesharing Based on Personal Mobility Patterns, pp. 1315-1322.

Roor, Roman	Bmw Ag
Karg, Michael	BMW Group
Liao, Andy	BMW China Services Ltd
Lei, Wenhui	BMW China Services Ltd
Kirsch, Alexandra	Eberhard Karls Univ. Tübingen

15:30-17:00 TuDT5.9

Traffic Signal Timing Optimization in Connected Vehicles Environment, pp. 1323-1328.

Li, Wan	Univ. of Washington
Ban, Xuegang (Jeff)	Univ. of Washington

15:30-17:00 TuDT5.10

Stabilizing Traffic Flow Via a Single Autonomous Vehicle: Possibilities and Limitations, pp. 1329-1334.

Cui, Shumo	Temple Univ
Seibold, Benjamin	Temple Univ
Stern, Raphael	Univ. of Illinois at Urbana-Champaign
Work, Daniel	Univ. of Illinois at Urbana Champaign

Technical Program for Wednesday June 14, 2017

WeAT0	Peninsula and Pacific
Localization and Mapping (Regular Session)	
Chair: Stiller, Christoph	Karlsruhe Inst. of Tech
10:00-10:20	WeAT0.4
<i>Towards Automated Map Updating for Mobile Robot Localization</i> , pp. 1335-1340.	
Delobel, Laurent	Univ. Blaise PASCAL
Aufrere, Romuald	Clermont Auvergne Univ
Chapuis, Roland	Inst. Pascal
Debain, Christophe	CEMAGREF
Chateau, Thierry	Univ. of Clermont-Ferrand
10:20-10:40	WeAT0.11
<i>Real-Time Variational Stereo Reconstruction with Applications to Large-Scale Dense SLAM</i> , pp. 1341-1348.	
Kuschik, Georg	Tech. Univ. Munich
Bozic, Aljaz	Tech. Univ. Munich
Cremers, Daniel	TU Munich
10:20-10:40	WeAT0.11
<i>Robust Localization Using 3D NDT Scan Matching with Experimentally Determined Uncertainty and Road Marker Matching</i> , pp. 1357-1364.	
Akai, Naoki	Nagoya Univ
Morales Saiki, Luis Yoichi	Nagoya Univ
Takeuchi, Eijiro	Nagoya Univ
Yoshihara, Yuki	Nagoya Univ
Ninomiya, Yoshiki	Nagoya Univ
10:20-10:40	WeAT0.11
<i>Mastering Data Complexity for Autonomous Driving with Adaptive Point Clouds for Urban Environments</i> , pp. 1349-1356.	
Yin, Hang	Chalmers Univ. of Tech
Berger, Christian	Chalmers Univ. of Gothenburg
10:20-10:40	WeAT0.12
<i>Robust Data Fusion for Cooperative Vehicular Localization in Tunnels</i> , pp. 1365-1370.	
Hoang, Gia-Minh	Cea-Leti, Eurecom
Benoit, Denis	CEA-Leti
Haerri, Jerome	EURECOM
Slock, Dirk	EURECOM

WeBT1		Peninsula and Pacific
Road and Intersection Detection (Interactive Session)		
Chair: Bao, Jiali		The Univ. of Tokyo
11:00-12:30		WeBT1.1
<i>Automated Detection of Construction Sites on Motorways</i> , pp. 1371-1378.		
Kunz, Philipp	Continental Teves AG & Co. Ohg	
Schreier, Matthias	Continental Teves AG & Co. Ohg	
11:00-12:30		WeBT1.2
<i>A Flexible Modeling Approach for Robust Multi-Lane Road Estimation</i> , pp. 1379-1385.		
Abramov, Alexey	Continental Teves AG	
Bayer, Christopher	Continental Teves AG	
Heller, Claudio	Continental Teves AG	
Loy, Claudia	Continental Teves AG	

11:00-12:30	WeBT1.3
<i>Intersection Scan Model and Probability Inference for Vision Based Small-Scale Urban Intersection Detection</i> , pp. 1386-1391.	
Yang, Yi	Beijing Inst. of Tech
Li, Hao	Beijing Inst. of Tech
Zhu, Hao	Beijing Inst. of Tech
Shang, Songtian	Beijing Inst. of Tech
Lyu, Ningyi	Beijing Inst. of Tech
Song, Wenjie	Beijing Inst. of Tech

11:00-12:30	WeBT1.4
<i>Iterative Search & Learn for Sign Detection in Large Datasets</i> , pp. 1392-1399.	
Overett, Gary Mark	Sun Yat-Sen Univ. - Carnegie Mellon Univ. - Joint Inst
Wang, Wei	CMU

11:00-12:30	WeBT1.5
<i>Markov Random Field for Image Synthesis with an Application to Traffic Sign Recognition</i> , pp. 1400-1405.	
Haselhoff, Anselm	Hochschule Ruhr West
Nunn, Christian	Delphi Electronics and Safety
Mueller, Dennis	Delphi Electronics & Safety
Meuter, Mirko	Delphi Electronics & Safety
Roese-Koerner, Lutz	Delphi

11:00-12:30	WeBT1.6
<i>High Density Valet Parking Using K-DequeS in Driveways</i> , pp. 1406-1413.	
Banzhaf, Holger	Robert Bosch GmbH
Quedenfeld, Frank	Deutsche Bundesbank
Nienhüser, Dennis	Robert Bosch GmbH
Knoop, Steffen	Robert Bosch GmbH
Zöllner, J. Marius	FZI Res. Center for Information Tech. KIT Karlsruhe In

11:00-12:30	WeBT1.7
<i>Towards Unconstrained Content Recognition of Additional Traffic Signs</i> , pp. 1414-1420.	
Wenzel, Thomas	Robert Bosch Car Multimedia GmbH
Brueggert, Steffen	Robert Bosch GmbH
Denzler, Joachim	Friedrich-Schiller-Univ. Jena

11:00-12:30	WeBT1.8
<i>Symbolic Road Marking Recognition Using Convolutional Neural Networks</i> , pp. 1421-1426.	
Ahmad, Touqeer	Univ. of Nevada, Reno
Ilstrup, David	Honda Res. Inst
Emami, Ebrahim	Univ. of Nevada, Reno
Bebis, George	Univ. of Nevada

11:00-12:30	WeBT1.9
<i>AVM / LiDAR Sensor Based Lane Marking Detection Method for Automated Driving on Complex Urban Roads</i> , pp. 1427-1432.	
Lee, Hyunsung	Seoul National Univ
Kim, Seonwook	Seoul National Univ
Park, Sungyoul	Seoul National Univ
Jeong, Yonghwan	Seoul National Univ
Lee, Hojoon	Seoul National Univ
Yi, Kyongsu	Seoul National Univ

11:00-12:30	WeBT1.10
<i>3D-LIDAR Based Branch Estimation and Intersection Location for</i>	

Autonomous Vehicles, pp. 1433-1438.

Wang, Liang	Tongji Univ
Wang, Jun	Tongji Univ
Wang, Xiaonian	Tongji Univ
Zhang, Yihuan	Tongji Univ

WeBT2 Bay

Planning and Decision (Interactive Session)

Chair: Aksun Guvenc, Bilin Ohio State Univ

11:00-12:30 WeBT2.1

Driving Speed Profiles for Autonomous Vehicles, pp. 1439-1444.

Anastassov, Anton	HERE
Jang, Dongwook	HERE
Giurgiu, Gavril	HERE

11:00-12:30 WeBT2.3

Probabilistic Time-To-Lane-Change Prediction on Highways, pp. 1445-1450.

Wissing, Christian	Tech. Univ. of Dortmund
Nattermann, Till	Zf Trw
Glander, Karl-Heinz	Zf Trw
Bertram, Torsten	Tech. Univ. Dortmund

11:00-12:30 WeBT2.4

Maneuver Planning for Highly Automated Vehicles, pp. 1451-1457.

Menendez-Romero, Cristina	BMW Group
Winkler, Franz	BMW Group
Dornhege, Christian	Albert-Ludwigs-Univ. Freiburg
Burgard, Wolfram	Univ. of Freiburg

11:00-12:30 WeBT2.5

Near-Future Traffic Evaluation Based Navigation for Automated Driving Vehicles, pp. 1458-1463.

Lin, Kuen-Wey	National Chiao Tung Univ
Li, Yih-Lang	National Chiao Tung Univ
Hashimoto, Masanori	Osaka Univ

11:00-12:30 WeBT2.6

Ontology-Based Traffic Scene Modeling, Traffic Regulations Dependent Situational Awareness and Decision-Making for Automated Vehicles, pp. 1464-1469.

Buechel, Martin	Fortiss GmbH
Hinz, Gereon Michael	Fortiss GmbH
Ruehl, Frederik	Continental Teves AG & Co. Ohg
Schroth, Hans	Continental Teves AG & Co. Ohg
Gyoeri, Csaba	Continental Teves AG & Co. Ohg
Knoll, Alois	Tech. Univ. München

11:00-12:30 WeBT2.8

Verifying the Safety of Lane Change Maneuvers of Self-Driving Vehicles Based on Formalized Traffic Rules, pp. 1470-1476.

Pek, Christian	BMW Group Res
Zahn, Peter	BMW Group
Althoff, Matthias	Tech. Univ. München

WeBT3 Catalina

Driver State and Intent Recognition 2 (Interactive Session)

Chair: Liu, Changliu Univ. of California, Berkeley
Co-Chair: Xu, Donghao Peking Univ

11:00-12:30 WeBT3.1

Long Short Term Memory for Driver Intent Prediction, pp. 1477-1482.

Zyner, Alex	Univ. of Sydney
Worrall, Stewart	Univ. of Sydney
Ward, James Robert	Univ. of Sydney
Nebot, Eduardo	ACFR Univ. of Sydney

11:00-12:30 WeBT3.2

Scene-Aware Driver State Understanding in Car-Following Behaviors, pp. 1483-1489.

Xu, Donghao	Peking Univ
Zhao, Huijing	Peking Univ
Guillemard, Franck	PSA Peugeot Citroen, Velizy, France
Geronimi, Stephane	PSA Peugeot Citroen, Velizy, France
Aioun, Francois	PSA Peugeot Citroen, Velizy, France

11:00-12:30 WeBT3.2

Cost-Efficient Driver State and Road Conditions Monitoring System for Conditional Automation, pp. 1490-1495.

Allamehzadeh, Arman	UAS Tech. Wien
Parra, Jesus	Univ. Carlos III De Madrid
Hussein, Ahmed	Intelligent Systems Lab (LSI) - Univ. Carlos III De Madrid
Garcia, Fernando	Univ. Carlos III De Madrid
Olaverri-Monreal, Cristina	UAS Tech. Wien

11:00-12:30 WeBT3.3

Embedded Recurrent Network for Head Pose Estimation in Car, pp. 1496-1501.

Borghi, Guido	Unieversity of Modena and Reggio Emilia
Gasparini, Riccardo	Univ. of Modena and Reggio Emilia
Vezzani, Roberto	Univ. of Modena and Reggio Emilia
Cucchiara, Rita	Univ. of Modena and Reggio Emilia

11:00-12:30 WeBT3.4

Assessing Driver Cortical Activity under Varying Levels of Automation with Functional Near Infrared Spectroscopy, pp. 1502-1509.

Sibi, Srinath	Stanford Univ
Balters, Stephanie	Norwegian Univ. of Science and Tech
Mok, Brian	Stanford Univ
Steinert, Martin	Norwegian Univ. of Science and Tech
Ju, Wendy	Stanford Univ

11:00-12:30 WeBT3.5

Sensor-Based Driver Condition Recognition Using Support Vector Machine for the Detection of Driver Drowsiness, pp. 1510-1515.

Cheon, Seongpil	Sogang Univ
Kang, Suk-Ju	Sogang Univ

11:00-12:30 WeBT3.6

Understand Driver Awareness through Brake Behavior Analysis: Reactive versus Intended Hard Brake, pp. 1516-1521.

Li, Nanxiang	Honda Res. Inst
Misu, Teruhisa	Honda Res. Inst
Tao, Fei	Univ. of Texas at Dallas

11:00-12:30 WeBT3.7

Employing Consumer Electronic Devices in Physiological and Emotional Evaluation of Common Driving Activities, pp. 1522-1527.

Melnicuk, Vadim	Univ. of Warwick
Birrell, Stewart	Univ. of Warwick
Crundall, Elizabeth	Bright Eyes Scientific Services
Jennings, Paul	WMG, Univ. of Warwick

11:00-12:30 WeBT3.9

Exact Inference and Learning in Hybrid Bayesian Networks for Lane Change Intention Classification, pp. 1528-1533.

Koenig, Alexander	BMW Group
Rehder, Tobias	BMW Group
Hohmann, Soeren	Karlsruhe Inst. of Tech

11:00-12:30 WeBT3.10

Gaze Fixations and Dynamics for Behavior Modeling and Prediction of On-Road Driving Maneuvers, pp. 1534-1538.

Martin, Sujitha	Univ. of California, San Diego
Trivedi, Mohan M.	Univ. of California at San Diego

WeBT4 Redondo Salon 1 Active and Passive Safety (Interactive Session)

Chair: Shokrolah Shirazi, Mohammad	Cleveland State Univ
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11:00-12:30 WeBT4.1

Safety Unit-Based Safe Behavior Assurance for Autonomous and Semi-Autonomous Aerial Systems: Requirements, Concept, and Simulation Results, pp. 1539-1544.

Haegele, Georg	Univ. of Duisburg-Essen
Soeffker, Dirk	Univ. of Duisburg-Essen

11:00-12:30 WeBT4.2

Age-Related Field Study for Determination of the 95%-Detectability of Objects under Peripheral Vision Conditions, pp. 1545-1550.

Schneider, Katharina	Tech. Univ. Darmstadt
Kobbert, Jonas	Tech. Univ. Darmstadt, FG Lichttechnik
Khanh, Tran Quoc	Tech. Univ. Darmstadt

11:00-12:30 WeBT4.3

Direct Vehicle Collision Detection from Motion in Driving Video, pp. 1551-1557.

Kilicarslan, Mehmet	Indiana Univ. Univ. Indianapolis
Zheng, Jiang Yu	IUPUI

11:00-12:30 WeBT4.4

Traffic Phase Inference Using Traffic Cameras, pp. 1558-1563.

Shokrolah Shirazi, Mohammad	Cleveland State Univ
Morris, Brendan	Univ. of Nevada, Las Vegas

11:00-12:30 WeBT4.5

A Simulated Car-Park Environment for the Evaluation of Video-Based On-Site Parking Guidance Systems, pp. 1564-1569.

Tschentscher, Marc	Ruhr-Univ. Bochum
Pruß, Ben	Ruhr-Univ. Bochum
Horn, Daniela	Ruhr-Univ. Bochum

11:00-12:30 WeBT4.6

Anomaly Detection of CAN Bus Messages through Analysis of ID Sequences, pp. 1570-1576.

Marchetti, Mirco	Univ. of Modena and Reggio Emilia
Stabili, Dario	Univ. of Modena and Reggio Emilia

11:00-12:30 WeBT4.7

Intention Estimation for Ramp Merging Control in Autonomous Driving, pp. 1577-1582.

Dong, Chiyu	Carnegie Mellon Univ
Litkouhi, Bakhtiar	General Motor R&D Center
Dolan, John	Carnegie Mellon Univ

11:00-12:30 WeBT4.8

A Machine Learning Approach for Personalized Autonomous Lane Change Initiation and Control, pp. 1583-1588.

Vallon, Charlott	ETH Zurich
Ercan, Ziya	Istanbul Tech. Univ
Carvalho, Ashwin	Univ. of California, Berkeley
Borrelli, Francesco	Univ. of California, Berkeley

11:00-12:30 WeBT4.9

A Personalized Highway Driving Assistance System, pp. 1595-1600.

Ramyar, Saina	North Carolina a & T State Univ
Homaifar, Abdollah	North Carolina a & T State Univ
Salaken, Syed Moshfeq	Deakin Univ
Nahavandi, Saeid	Deakin Univ
Kurt, Arda	The Ohio State Univ

11:00-12:30 WeBT4.9

End-To-End Learning of Image Based Lane-Change Decision, pp. 1589-1594.

Jeong, Seong-Gyun	NAVER LABS Corp
Kim, Jiwon	NAVER LABS Corp
Kim, Sujung	NAVER LABS Corp
Min, Jaesik	LAVER LABS Corp

WeBT5 Redondo Salon 2&3 Eco-Driving and Energy Efficient Vehicles -2 (Interactive Session)

Chair: Wu, Guoyuan	Univ. of California-Riverside
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11:00-12:30 WeBT5.1

Energy-Optimal Driving Range Prediction for Electric Vehicles, pp. 1601-1606.

De Nunzio, Giovanni	IFPEN
Thibault, Laurent	IFPEN

11:00-12:30 WeBT5.2

Component Size and Gear Ratio Optimization in PHEV Powertrain, pp. 1607-1611.

Kang, Changbeom	Seoul National Univ
Lee, Heeyun	Seoul National Univ
Kim, Jinseong	Seoul National Univ. of Science and Tech
Park, Young-il	Seoul National Univ. of Science and Tech
Cha, Suk Won	Seoul National Univ

11:00-12:30 WeBT5.3

Torque Distribution for Electric Vehicle with Four In-Wheel Motors by Considering Energy Optimization and Dynamics Performance, pp. 1612-1617.

Guo, Lie	Dalian Univ. of Tech
Lin, Xiao	Dalian Univ. of Tech
Ge, Pingshu	Dalian Minzu Univ
Qiao, Yanfu	Dalian Univ. of Tech
Xu, Linna	Dalian Univ. of Tech
Li, Junchen	Dalian Univ. of Tech

11:00-12:30	WeBT5.4
<i>A Vehicle-User Matching Tool to Encourage Electric Mobility</i> , pp. 1618-1623.	
Galluppi, Olga	Pol. Di Milano
Colzi, Filippo	RSE
Formentin, Simone	Pol. Di Milano
Savaresi, Sergio	Pol. Di Milano
11:00-12:30	WeBT5.5
<i>Fuel and Comfort Efficient Cooperative Control for Autonomous Vehicles</i> , pp. 1624-1629.	
Mohseni, Fatemeh	Linköping Univ
Åslund, Jan	Linköping Univ
Frisk, Erik	Linköping Univ
Nielsen, Lars	Linköping Univ
11:00-12:30	WeBT5.6
<i>Model-Based Development of Transmission Concepts for Hybrid Electric Powertrains</i> , pp. 1630-1635.	
Geng, Stefan	Hochschule Ostwestfalen-Lippe - Univ. of Applied Sciences
Zubke, Tobias	Hochschule Ostwestfalen-Lippe - Univ. of Applied Sciences
Schulte, Thomas	Hochschule Ostwestfalen-Lippe - Univ. of Applied Sciences
11:00-12:30	WeBT5.10
<i>Analysis of the Charging Infrastructure for Battery Electric Vehicles in Commercial Companies</i> , pp. 1636-1642.	
Betz, Johannes	Tech. Univ. Munich
Leonhard, Walther	Tech. Univ. München - Lehrstuhl Für Fahrzeugtechnik
Lienkamp, Markus	Tech. Univ. München
11:00-12:30	WeBT5.11
<i>Usability of Escooters in Urban Environments - a Pilot Study</i> , pp. 1643-1650.	
Hardt, Cornelius	Univ. of the Armed Forces, Munich
Dr. Bogenberger, Klaus	Univ. of Federal Armed Forces Munich
WeCT0 Peninsula and Pacific	
Autonomous Vehicles: Interaction with Traffic (Regular Session)	
Chair: Ozguner, Umit	Ohio State Univ
13:30-15:10	WeCT0.1
<i>V2I Based Cooperation between Traffic Signal and Approaching Automated Vehicles</i> , pp. 1651-1657.	
Xu, Biao	Tsinghua Univ
Ban, Xuegang (Jeff)	Univ. of Washington
Bian, Yougang	State Key Lab. of Automotive Safety and Energy, Tsinghua Un
Wang, Jianqiang	Tsinghua Univ
Li, Keqiang	Tsinghua Univ
13:30-15:10	WeCT0.2
<i>Generalizable Intention Prediction of Human Drivers at Intersections</i> , pp. 1658-1663.	
Phillips, Derek	Stanford Univ
Wheeler, Tim	Stanford Univ
Kochenderfer, Mykel	Stanford Univ
13:30-15:10	WeCT0.4
<i>Evaluation of Automated Vehicles Encountering Pedestrians at</i>	

Unsignalized Crossings, pp. 1664-1670.

Chen, Baiming	Tsinghua Univ
Zhao, Ding	Univ. of Michigan, Ann Arbor
Peng, Huei	Univ. of Michigan

13:30-15:10 WeCT0.4

Decision Making for Autonomous Driving Considering Interaction and Uncertain Prediction of Surrounding Vehicles, pp. 1671-1678.

Hubmann, Constantin	BMW Group
Becker, Marvin	Tech. Univ. München
Althoff, Daniel	Tech. Univ. München
Lenz, David	Fortiss GmbH
Stiller, Christoph	Karlsruhe Inst. of Tech

13:30-15:10 WeCT0.5

SPOT: A Tool for Set-Based Prediction of Traffic Participants, pp. 1679-1686.

Koschi, Markus	Tech. Univ. of Munich
Althoff, Matthias	Tech. Univ. München

WeDT1 Peninsula and Pacific
SLAM and Visual Odometry (Interactive Session)

Chair: Martin, Sujitha Univ. of California, San Diego

15:30-17:00 WeDT1.1

Online Stereo Camera Calibration from Scratch, pp. 1687-1692.

Rehder, Eike	Karlsruhe Inst. of Tech
Kinzig, Christian	Karlsruher Inst. of Tech
Bender, Philipp	FZI Forschungszentrum Informatik
Lauer, Martin	Karlsruher Inst. Für Tech

15:30-17:00 WeDT1.3

Geometry-Based Next Frame Prediction from Monocular Video, pp. 1700-1707.

Mahjourian, Reza	Univ. of Texas at Austin
Wicke, Martin	Google
Angelova, Anelia	Google

15:30-17:00 WeDT1.4

Effects of Exhaust Gases on Laser Scanner Data Quality at Low Ambient Temperatures, pp. 1708-1713.

Hasirlioglu, Sinan	Tech. Hochschule Ingolstadt
Riener, Andreas	Univ. of Applied Sciences Ingolstadt

Huber, Werner	BMW Group Res. and Tech
Wintersberger, Philipp	Univ. of Applied Sciences Ingolstadt

15:30-17:00 WeDT1.5

Multimodal Scale Estimation for Monocular Visual Odometry, pp. 1714-1721.

Fanani, Nolang	Goethe Univ. Frankfurt
Stuerck, Alina	Goethe Univ. Frankfurt
Barnada, Marc	Goethe Univ. Frankfurt
Mester, Rudolf	Goethe Univ. Frankfurt

15:30-17:00 WeDT1.6

Pose Estimation with Lidar Odometry and Cellular Pseudoranges, pp. 1722-1727.

Kassas, Zaher	Univ. of California, Riverside
Khalife, Joe	Univ. of California, Riverside
Ragothaman, Sonya	Univ. of California, Riverside

15:30-17:00 WeDT1.7

A Hybrid Bundle Adjustment/Pose-Graph Approach to VSLAM/GPS Fusion for Low-Capacity Platforms, pp. 1728-1735.

Salehi, Achkan	Commissariat à L'énergie Atomique
Gay-bellile, Vincent	Commissariat à L'énergie Atomique
Bourgeois, Steve	Commissariat à L'énergie Atomique
Chausse, Frederic	Clermont Univ

15:30-17:00 WeDT1.8
Road-SLAM: Road Marking Based SLAM with Lane-Level Accuracy, pp. 1736-1743.

Jeong, Jinyong	Korea Advanced Inst. Science and Tech
Cho, Younggun	Korea Advanced Inst. of Science and Tech
Kim, Ayoung	KAIST

15:30-17:00 WeDT1.9
Continuous Point Cloud Data Compression Using SLAM Based Prediction, pp. 1744-1751.

Tu, Chenxi	Nagoya Univ
Takeuchi, Eijiro	Nagoya Univ
Miyajima, Chiyomi	Nagoya Univ
Takeda, Kazuya	Nagoya Univ

15:30-17:00 WeDT1.10
PCE-SLAM: A Real-Time Simultaneous Localization and Mapping Using LiDAR Data, pp. 1752-1757.

Agrawal, Pragma	Intel Corp
Iqbal, Asif	Univ. of Texas at Dallas
Russell, Brittney	Intel Corp
Khodam Hazrati, Mehrnaz	Intel Corp
Kashyap, Vinay	Intel Corp
Akhbari, Farshad	Intel Corp

WeDT2 Bay
Mapping and Learning the Environment (Interactive Session)

Chair: Gruner, Richard Fortiss GmbH

15:30-17:00 WeDT2.1
Evolutionary Algorithm for Positioning Cameras Networks Mounted on Uav, pp. 1758-1763.

Strubel, David	IUT Le Creusot, Univ. of Burgundy
Morel, Olivier	Univ. of Burgundy
Mohamad Saad, Mohamad Naufal	Centre of Intelligent Signal & Imaging Res. (CISIR), Departm
Fofi, David	IUT Le Creusot, Univ. of Burgundy

15:30-17:00 WeDT2.2
Sensor-Based Road Model Estimation for Autonomous Driving, pp. 1764-1769.

Thomas, Julian	BMW Group AG
Rojas, Raúl	Berlin Univ

15:30-17:00 WeDT2.3
A-Priori Map Information and Path Planning for Automated Valet-Parking, pp. 1770-1775.

Klaudt, Sebastian	Inst. Für Kraftfahrzeuge, RWTH Aachen Univ
Zlocki, Adrian	Fka
Eckstein, Lutz	RWTH Aachen Univ

15:30-17:00 WeDT2.4

A Robust Submap-Based Road Shape Estimation Via Iterative Gaussian Process Regression, pp. 1776-1781.

Wang, Di	Xi'an Jiaotong Univ
Xue, Jianru	Xi'an Jiaotong Univ
Cui, Dixiao	Xi'an Jiaotong Univ
Zhong, Yang	Xi'an Jiaotong Univ

15:30-17:00 WeDT2.5

Spatiotemporal Representation of Driving Scenarios and Classification Using Neural Networks, pp. 1782-1788.

Gruner, Richard	Mercedes-Benz Res. & Development North America
Henzler, Philip	Mercedes Benz Res. & Development North America
Hinz, Gereon Michael	Fortiss GmbH
Eckstein, Corinna	Mercedes-Benz Res. and Development North America
Knoll, Alois	Tech. Univ. München

15:30-17:00 WeDT2.6

Efficient ConvNet for Real-Time Semantic Segmentation, pp. 1789-1794.

Romera, Eduardo	Univ. of Alcala
Alvarez, José M.	NICTA
Bergasa, Luis M.	Univ. of Alcala
Arroyo, Roberto	Univ. of Alcala

15:30-17:00 WeDT2.7

Semantic Segmentation-Based Stereo Reconstruction with Statistically Improved Long Range Accuracy, pp. 1795-1802.

Miclea, Vlad	Tech. Univ. of Cluj-Napoca
Nedevschi, Sergiu	Tech. Univ. of Cluj-Napoca

15:30-17:00 WeDT2.8

RegNet: Multimodal Sensor Registration Using Deep Neural Networks, pp. 1803-1810.

Schneider, Nick	Daimler AG
Piewak, Florian	Daimler AG
Franke, Uwe	Daimler AG
Stiller, Christoph	Karlsruhe Inst. of Tech

WeDT4 Redondo Salon 1
Architecture for Advanced Driver Assistance Systems and Autonomous Driving (Interactive Session)

Chair: Altintas, Onur Toyota InfoTechnology Center USA

15:30-17:00 WeDT4.1

Towards Full Automated Drive in Urban Environments: A Demonstration in GoMentum Station, California, pp. 1811-1818.

Cosgun, Akansel	Honda Res. Inst. (HRI)
Ma, Lichao	Honda Res. Inst. (HRI)
Chiu, Jimmy	Honda Res. Inst. (HRI)
Huang, Jiawei	Honda Res. Inst
Demir, Mahmut	Honda Res. Inst. (HRI)
Miranda Anon, Alexandre	Honda Res. Inst
Lian, Thang	Honda Res. Inst. (HRI)
Tafish, Hasan	Honda R&D Americas
Al-Stouhi, Samir	Honda R&D Americas Inc

15:30-17:00 WeDT4.2

A Fail-Operational Truck Platooning Architecture, pp. 1819-1826.

Bijlsma, Tjerk	TNO
Hendriks, Teun	TNO
15:30-17:00	WeDT4.3
<i>The Future of Parking: A Survey on Automated Valet Parking with an Outlook on High Density Parking</i> , pp. 1827-1834.	
Banzhaf, Holger	Robert Bosch GmbH
Nienhüser, Dennis	Robert Bosch GmbH
Knoop, Steffen	Robert Bosch GmbH
Zöllner, J. Marius	FZI Res. Center for Information Tech. KIT Karlsruhe In
15:30-17:00	WeDT4.4
<i>Path Following Control for Autonomous Formula Racecar: Autonomous Formula Student Competition</i> , pp. 1835-1840.	
Ni, Jun	Univ. of California, Berkeley
Hu, Jibin	Beijing Inst. of Tech
15:30-17:00	WeDT4.5
<i>Dynamic Driving Task Fallback for an Automated Driving System Whose Ability to Monitor the Driving Environment Has Been Compromised</i> , pp. 1841-1847.	
Emzivat, Yrvann	IRCCyN, Renault
Ibanez Guzman, Javier	Renault S.A.S.
Martinet, Philippe	Ec. Centrale De Nantes
Roux, Olivier H.	IRCCyN
15:30-17:00	WeDT4.6
<i>Hazard Analysis and Risk Assessment for an Automated Unmanned Protective Vehicle</i> , pp. 1848-1855.	
Stolte, Torben	Tech. Univ. Braunschweig
Bagschik, Gerrit	Tech. Univ. Braunschweig
Reschka, Andreas	Tech. Univ. Braunschweig
Maurer, Markus	TU Braunschweig
15:30-17:00	WeDT4.7
<i>End-To-End Learning for Lane Keeping of Self-Driving Cars</i> , pp. 1856-1860.	
Chen, Zhilu	WPI
Huang, Xinming	WPI
15:30-17:00	WeDT4.8
<i>A New Control Architecture for MuCAR</i> , pp. 1861-1866.	
Heinrich, Benjamin	Univ. of the Bundeswehr Munich
Luettel, Thorsten	Univ. of the Bundeswehr Munich
Wuensche, Hans Joachim Joe	Univ. BW Munich
15:30-17:00	WeDT4.9
<i>Fault Injection Method for Safety and Controllability Evaluation of Automated Driving</i> , pp. 1867-1872.	
Juez Uriagereka, Garazi	Tecnalia
Lattarulo, Ray	Tecnalia Res. and Innovation
Pérez Rastelli, Joshué	Tecnalia
Amparan Calonge, Estibaliz	Tecnalia
Ruiz Lopez, Alejandra	Tecnalia
Espinoza, Huascar	Tecnalia
15:30-17:00	WeDT4.10
<i>Paving the Roadway for Safety of Automated Vehicles: An Empirical Study on Testing Challenges</i> , pp. 1873-1880.	
Knauss, Alessia	Chalmers Univ. of Tech
Schröder, Jan	Univ. of Gothenburg
Berger, Christian	Chalmers Univ. of Gothenburg
Eriksson, Henrik	RISE Res. Inst. of Sweden

WeDT5	Redondo Salon 2&3
V2X Communication (Interactive Session)	
Chair: Javanmardi, Ehsan	The Univ. of Tokyo
15:30-17:00	WeDT5.1
<i>Simulation of Cooperative Automated Driving by Bidirectional Coupling of Vehicle and Network Simulators</i> , pp. 1881-1886.	
Llatser, Ignacio	Robert Bosch GmbH
Jornod, Guillaume	École Pol. Fédérale De Lausanne
Festag, Andreas	Fraunhofer IVI
Mansolino, David	Distributed Intelligent Systems and Algorithms Lab. (DISAL
Navarro, Inaki	EPFL
Martinoli, Alcherio	EPFL
15:30-17:00	WeDT5.2
<i>AREBIC: Autonomous Reservation-Based Intersection Control for Emergency Evacuation</i> , pp. 1887-1892.	
Chang, Yohan	Univ. of Missouri
Edara, Praveen	Univ. of Missouri-Columbia
15:30-17:00	WeDT5.3
<i>Mitigate the Obstructing Effect of Vehicles on the Propagation of VANETs Safety-Related Information</i> , pp. 1893-1898.	
Huang, Rui	Shanghai Jiaotong Univ
Wu, Jing	Shanghai Jiao Tong Univ
Long, Chengnian	Shanghai Jiao Tong Univ
Zhu, Yanmin	Shanghai Jiao Tong Univ
Lin, Yi-Bing	National Chiao Tung Univ
15:30-17:00	WeDT5.4
<i>Analysis of ITS-G5A V2X Communications Performance in Autonomous Cooperative Driving Experiments</i> , pp. 1899-1903.	
Parra Alonso, Ignacio	Univ. De Alcala
García Morcillo, Álvaro	Univ. of Alcala
Izquierdo Gonzalo, Rubén	Univ. of Alcalá
Alonso, Javier	Centro De Automática Y Robótica (CAR) UPM-CSIC
Fernández-Llorca, David	Univ. of Alcalá, Spain
Sotelo, Miguel A.	Univ. of Alcala
15:30-17:00	WeDT5.7
<i>A Two-Stage Electric Vehicles Scheduling Strategy to Address Economic Inconsistency Issues of Stakeholders</i> , pp. 1904-1909.	
Han, Bing	Xi'an Jiaotong-Liverpool Univ
Lu, Shaofeng	Xi'an Jiaotong-Liverpool Univ
Xue, Fei	Xi'an Jiaotong-Liverpool Univ
Jiang, Lin	Liverpool Univ
Zhu, Huaiyin	SDIC Baiyin Wind Power Co., LTD
15:30-17:00	WeDT5.8
<i>Novel Common Vehicle Information Model (CVIM) for Future Automotive Vehicle Big Data Marketplaces</i> , pp. 1910-1915.	
Pillmann, Johannes	TU Dortmund Univ
Wietfeld, Christian	TU Dortmund Univ
Zarcula, Adrian	Volkswagen AG
Raugust, Thomas	Volkswagen AG
Calvo Alonso, Daniel	Atos Res. and Innovation
15:30-17:00	WeDT5.9
<i>Data-Driven Approach for Targeted RSU Deployment in an Urban Environment</i> , pp. 1916-1921.	
Lamb, Zachary	Univ. of Cincinnati

Agrawal, Dharma

Univ. of Cincinnati

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WeDT5.10

*Enhancing the Reliability of Two-Way Vehicle-To-Grid
Communications*, pp. 1922-1927.

Sayed, Mostafa

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El Shafie, Ahmed

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Elgenedy, Mahmoud

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Chabaan, Rakan

Hyundai-Kia America Tech.
Center, Inc

Aldhahir, Naofal

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