Session I

10:30 - 12:10

Oral session 1: Incident and accident (Chair: Alan Nicholson)

- (4) Incident Alert by an Anomaly Indicator of Probe Trajectories
  Masanori Yoshida, Shogo Umeda, Yutaka Kangawa and Masato Kurokawa
- (9) Tensor robust principal component analysis with continuum modeling of traffic flow: Application to abnormal traffic pattern extraction in large transportation networks
  Stanislav Lykov and Jasoj Asakura
- (22) Traffic signal optimisation in disrupted road networks, including drivers’ routing
  Dana Abudayyeh, Dong Nguyen and Alan Nicholson
- (33) An analysis of risk factors for rear-end accident on urban expressway considering accident severity
  Satoshi Hyodo and Tomoyuki Todoroki
- (67) Effect of Road Pavement Ages on Traffic Accident Risks
  Takahiro Tsutoda, Celso Fernando, Toshio Yoshii and Hirotoshi Shirayamagi

Oral session 2: Traffic flow (Chair: Hwsuoo You)

- (3) Traffic state estimation using small imaging satellites and connected vehicles
  Toru Sato and Takahito Kasukawa
- (27) Impact of VSL location on capacity drop: A case of sag and tunnel bottlenecks
  Irene Martinez and Wen-Lon Jung
- (51) Analysis on sag bottleneck phenomena based on multiclass traffic state estimation
  Moto Takahshima and Yasuhito Siiomi
- (57) A New Cell Transmission Model with Priority Vehicles and Special Lanes
  Wen-Lon Jung and Kenjiro Iwada

Special session 1: Wide-area disaster management (Chair: Takamasa Iryo)

- (34) Effect of delay in information propagation on traffic congestion
  Masanori Kubo, Takamasa Iryo, Masayasu Yamada and Masato Kurokawa
- (52) On the implementation of high performance computing extension for day-to-day traffic assignment
  Wasea Petapetok, Lalthiz Wyertherme, Takamasa Iryo, Junji Uraota and Kazuki Fukuoka
- (53) Scalable HPC enhanced agent based system for simulating mixed mode evacuation of large urban areas
  Lalith Muddagedara, Wasea Petapetok, Leonel Aguilar and Muneo Hiro
- (65) Fast calculation of dynamic traffic assignment by parallelised network loading algorithm
  Takamasa Iryo, Junji Uraota, Kazuki Fukuoka, Genaro Jr Peque, Wjerythne Lathiz and Wasea Petapetok

(68) Development of a Traffic Demand Simulator under a Disaster Restoration Period
  Junji Uraota, Takamasa Iryo and Riki Karasawa

Room 1

Coffee break

Room 2

Room 3

12:10 - 13:30

Lunch and Coffee break

Session II

13:30 - 14:50

Oral session 3: Pedestrian & mixed traffic (Chair: Majid Sarvi)

- (20) Dynamic data collection of following and merging behavior in mixed traffic
  Anuj Budhkar, Akhilesh Kumar Maurya and Arjuti Maji
- (35) Design of Variable Guidance for Pedestrian Evacuation
  Yi-Ying Lin
- (58) Modified Generalized Definitions for the Traffic Flow Characteristics under Heterogeneous, No-Lane Classified Traffic Streams
  Savin P. Venturathiyil and Mallikarjuna Chunchu
- (62) Simulating “strategic” decisions for pedestrians’ evacuation
  Milad Haghani and Majid Sarvi

Oral session 4: Microscopic simulation (Chair: Juma Barcelo)

- (14) Investigating the performance of SPSA in Simulation-Optimization approaches to transportation problems
  Xavier Bos-Roca, Lidia Montero, Arne Schmeck and Jaume Barceló
- (45) A modified particle swarm optimization algorithm to distribute lane changes in a freeway weaving segment
  David Salecic, Nasser Sabour and Edward Chung
- (46) Simulating Interactions between Pedestrians, Segway Riders and Cyclists in Shared Spaces using Social Force Model
  Charitha Dias, Hiroshi Nishikawa, Satoshi Hynudo and Tomoyuki Todoroki
- (85) Calibration of Gipps Car-Following Model for Trucks and its Impacts on Fuel Consumption
  Johan Cattrin, Ludovic Leclercq, Florian Peremont and Nori-Eddin El Fiozzi

Oral session 5: Prediction I (Chair: Masuo Kuwahara)

- (49) Recurrent Neural Network Based Driving Cycle Development for Light Duty Vehicles in Beijing
  Duqiao Qin, Yuan Liu and Dapeng Qiao
- (69) A Long Short-Term Memory Neural Network Approach for Traffic Density Estimation with Sensor-equipped Probe Vehicles
  Datik Nam, Biju Lavanya, Inchuk Yang, Woon Hoon Jean and R. kayuruchman
- (81) Assessing spatiotemporal correlations from data for short-term traffic prediction using multi-task learning
  Rafael Mena-Santra, Jordi Casas and Ricard Gavaldà

Room 2

Room 3

14:50 - 15:10

Coffee Break

15:10 - 16:30

Session III

Oral session 6: Public transport and transport policy (Chair: Fumitaka Kurauchi)

- (23) Optimization of Transit Timetables Considering Transit Assignment
  Hua-Yen Wu, Kentaro Korsesthakarn, Yun-Ju Chen, Chia-Yu Kang, Yi-Ying Lin and James C. Chu
- (32) Integrated Network Transport Simulator to Evaluate Transport Policy for Reduction of Carbon Dioxide Emission
  Masashi Okushima
- (37) Optimization of urban transit network design and timetabling for round-trip routes
  Yun-Ju Chen, Chia-Yu Kang, Yi-Ying Lin, Kentaro Korsesthakarn and James C. Chu
- (41) Identifying passengers who are at risk of reducing public transport use: A survival time analysis using smart card data
  Hiroaki Nishikawa and Makoto Chikarashi

Oral session 7: Driving behavior (Chair: Agachai Sumalee)

- (29) A Hybrid Method for Predicting a Potential Next Rest Stop of Commercial Vehicles
  Thanachai Chawatthai, Thanachai Thungpipat, Agachai Sumalee and Nattaphon Chanthavee
- (53) An Analysis of Attentional Disengagement Effect on Driver's Cognition of Road Gradient at Sag Sections
  Hirotoshi Shirayamagi, Toshio Yoshii and Satoshi Hyodo
- (56) A Study on the Average Travel Speed on Interrupted Flow Multi-Lane Highways
  Edwin Akebusawano, Mibo Iryu and Hiduki Nakamura
- (59) Impact of the Direction of the Horizontal Curves on the Operating Speed Performance of the Vehicles on Hilly Terrain
  Regular Shallam, Savin P. Venturatikul, Mallikarjuna Chunchu and Arjan Kumar Siddagangaiah

Oral session 8: Prediction 2 (Chair: Edward Chung)

- (6) Predicting congestion maps using convolutional long short-term-memory
  Yan Li, Majid Sarvi, Kourowsi Kosheluham and Milad Haghani
- (39) Real-time lane-based queue length prediction: a deep learning approach
  Seunghyun Lee, Kun Xie, Dong Nguyen, Mehdi Kyvan-Eghtesadi and Hong Yang
- (83) Short-term prediction for bike-sharing service using machine learning
  Bo Wang and Inlu Kim

Room 3

17:30 - Gala dinner at Dogo Yanatoya
Keynote 2

9:00 - 9:45

Nanka Memorial Hall

Let’s talk about pedi! Winnie Daamen, Delft University of Technology

9:45 - 10:15

Aida Muse

Coffee Break

Room 1

10:15 - 11:35

Session IV

(40) A Study on the impact of AV-HDV mixed traffic on flow dynamics of single-lane motorway
Yuji Kakinoto, Mih0 Iryo, Eenee Ohrn and Hideki Nakamura
(31) Spatial distribution of Blaharčík’s intercity peer-to-peer ride-sharing trips: Case study of Spain
Azarel Chamorro-Olave and Daisuke Fukuda
(70) Simulation-based Forecasting the Impacts of Autonomous Driving
Peter Sukanek, Jochen Lohmiller and Johannes Schlich
(84) The uncapacitated battery swapping facility location problem with localized charging system serving electric buses fleet
Wentao Jing, Inhi Kim and Kun An

Oral session 9: CASE (Connected, autonomous, shared, and electric)
(Chair: Yasuo Asakura)

(30) A Study on the impact of AV-HDV mixed traffic on flow dynamics of single-lane motorway
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Wentao Jing, Inhi Kim and Kun An

Oral session 10: Data collection and new data
Chair: William H.K. Lam
(1) Identification of road bottlenecks and new data
Sakthia Kumarage, Dimantha De Silva and Saman Jayaweera Bandara
(24) Feature extraction of inter-region travel pattern using random matrix theory and mobile phone location data
Wataru Nakamitsu, Hiroshichi Yamaguchi and Daisuke Fukuda
(28) Freight Traffic Analyses from National Track GPS Data in Thailand
Agachai Sunaee, Trepereer Sritipong, Nattaphat Chantakum and Thanachai Thoopak, Heng Wai Ho and William H.K. Lam
(48) Traffic Data Characterization: Review and Challenges
Yuji Kakimoto, Ashish Bhaskar and Edward Chung

Oral session 11: Network & MDF
(Chair: Takashi Oguchi)
(5) Relationship between the macroscopic fundamental diagram hysteresis and the spatial distribution of density for a multimodal network
Ane M. Wahaballa, Seham Hemdan and Fumitaka Kusakabe
(38) Cross comparison of spatial partitioning methods for urban transportation networks
Shin Hirabayashi, Takao Dannoji, Qian Cie and Daisuke Fukuda
(47) Using taxi GPS data for macroscopic traffic monitoring in large scale urban networks: calibration and MDF derivation
Shoqeng Lu, Victor L. Knoop and Mohd Keyvan-Ebktamiz
(74) Local traffic pattern extraction with network-wide consistency in large urban networks
Yaroslav Hernandez-Pestomkin, Tamara Djikic and Jordi Casas

11:35 - 12:10

Quick lunch

12:10 -

Excursion

6th Aug, 2018

9:00 - 9:20

Nanka Memorial Hall

Shotgun poster presentation

9:20 - 9:40

Coffee Break

9:40 - 11:00

Session V

(2) A Study on Road Network Perimeter Control Policy for Reducing Air Pollution in Urban Area / Sanghoon Kim, Sehyun Tak, Yeewan Kim and Eunwoo Lee
(7) How desired speed level affects collective behavior of merging pedestrian crowds: insights from laboratory and simulated experiments / Zahra Shahshoosaiti and Majid Sarmi
(8) Design of Robust Signal Timings for arterial traffic variations using macroscopic simulation / Chatriwit Sirke, Nasser Saber, Edward Chung and Ashish Bhaskar
(12) Travel Demand Forecasting to Predict Demand for New Mobility Services Employing Autonomous Vehicles / Ken Hidaka and Takahiro Shiga
(13) Application of amp collectors in nairobi cdb for transport planning / Yoshiya Nakagawa, Juji Nishida, Hiroaki Ie and Kazuhisa Taniura
(15) Modelling Cycling Flow for the estimation of cycling traffic at a most urban spatial level / Suzanne Meade and Dr. Kathryn Stewart
(17) The Effectiveness of Historical Travel-time Information of Road Network in Shared Autonomous Taxi System / Zhiqiang Liu, Tomio Mowa, Weiliang Zeng and Takayuki Morikawa
(18) Quantitative Analysis Method of Traffic Service by Traffic Congestion under Developing Country / Tianmo Zhihai
(19) Proposal of vehicle control algorithm to achieve optimum traffic flow in a weaving section under fully-controlled condition in urban expressway / Shintaro Tanaka and Takahiro Shiraiishi
(21) Integration of Bus Network Design and Dial-a-ride Scheduling / Hei-Hui Shih, Chia-Yu Kang, W-Ying Liu, Kanchita Korapaticharn, Yun-Ju Chen and James C. Chu
(36) Cleaning Wi-Fi Probe Request Data to Estimate Travel Time Reliability in Mixed Traffic / Md. Shahin, Takahiko Kasaibue and Takashi Oguchi
(40) Estimating Missing Path on Trajectories Trip by using Bluetooth Data: Case study of downtown area in Bangkok, Thailand / Ruttaporn Kaewkhongplom, Pattamaporn Wongyirat, Tetsuhiro Ishizaka, Aartsen Fukuda and Soriwat Narupit
(42) Applicability of Virtual Reality Systems for Evaluating Pedestrians’ Perception and Behavior / Mih0 Iryo, Yu, Hungying and Churita Dias
(50) Study on traffic condition after operating Bus Rapid Transit system in Hanoi / Dung Nguyen and Yoshitaka Kajita
(44) Representation of bag bottleneck phenomena by using commercial microscopic traffic simulators / Mariko Nakai, Kenichi Nakazawa and Takahiro Shiga
(77) Taxi passenger’s getting on point prediction using deep learning / Dongguo Xu, Joosung Kim and Seungjae Lee
(78) A Study on the Effect of the Development of V2X-communication on the Improvement of Road Function / Sanghyung Na, Seungjae Lee and Joosung Kim
(79) REAL-TIME TRAFFIC SIGNAL CONTROL UNDER V2X ENVIRONMENT USING DEEP Q NETWORK / Sanghun Jung, Joosung Kim and Seungjae Lee
(82) Urban growth, transport planning, air quality and health. A multi-objective spatial analysis framework for a linear monocentric city / Auditi Y. Song and Richard D. Combs
(87) High Collision Concentration Location Identification Method Based on Optimization Technique / Jinsoo Lee, Ilia Papakonstantinou, Koshung Chung and Dong-Kye Kim

Alunni Hall

Poster session (Chair: Takahiko Tsabota)

(36) Cleaning Wi-Fi Probe Request Data to Estimate Travel Time Reliability in Mixed Traffic / Md. Shahin, Takahiko Kasaibue and Takashi Oguchi
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Nanka Memorial Hall

Special session 2: Utilization of ETC 2.0 based Vehicle Probe Data (Chair: Daisuke Fukuda)

(44) Characteristics of ETC2.0 probe data compared to road traffic census data
Shohei Yasuda, Tahakama Iryo, Yata Koyama and Katayama Sakai
(66) Investigations of Electronic Toll Collection (ETC) 2.0 system for validation of map matching algorithm and analysis of spatial deviation in observed data
Katayama Sakai, Yata Koyama, Shohei Yasuda and Takakama Iryo
(55) Route Choice Analysis in the Tokyo Metropolitan Area Using a Link-based Recursive Logit Model with Link Awareness
Noriko Kaneko, Hideki Oka, Makoto Chikaraiishi, Henrik Becker and Daisuke Fukuda
(73) Anomlay detection for instantaneous driving speed obtained from ETC 2.0 data in Japan
Wataru Yamamoto, Yuki Yamamoto, Rina Takayama and Makoto Tsukai

11:00 - 11:20

Coffee break

11:20 - 12:05

Keynote 3

Freeway Traffic Control via Variable Speed Limits / Markus Papageorgiou, Technical University of Crete

12:05 - 12:20

Closing address