THE 26th INTERNATIONAL CONFERENCE OF HONG KONG SOCIETY FOR TRANSPORTATION STUDIES

GREAT Transportation 12-13 December 2022

InterContinental Grand Stanford, 70 Mody Road, Tsim Sha Tsui East, Hong Kong

Overview Schedule

Day 1: 12 December 2022 (Monday)

Time	Event			
08:30 - 09:20	Registration (Pre-Function Area)			
09:20 - 10:00	Opening Session (Picasso Room)			
	Prof. Yike GUO			
	Provost, The Hong Kon	g University of Science a	and Technology	
	Prof. S.C. WONG			
	President, Hong Kong Society for Transportation Studies (HKSTS)			
	Dr. Sisi JIAN Co-chair, The 26 th International Conference of Hong Kong Society for Transportation Studies			
		Officiating Guest of Hor or Transport and Logistic		
10:00 – 10:10	Group Photo Taking (Pi	casso Room)		
10:10 - 10:40	Coffee Break (Academy Room, 1/F)			
10:40 – 12:10	Plenary Session I (Pica	sso Room)		
	Public transport for si			
	Prof. Janny M.Y. LEUN			
	University of Macau, Ma	acau		
	Transportation network services: modeling, economics analysis, and bundling			
	Prof. Kameshwar POOLLA, Keynote Speaker			
	University of California, Berkeley, U.S.			
	Income distribution, implementation sequence, and equity in auto ownership rationing			
	Prof. Zhi-Chun LI, Keynote Speaker Huazhong University of Science and Technology, China			
12:10 – 13:50	Conference Lunch (Ac		y, Omina	
13:50 – 15:10	Session A1	Session A2	Session A3	Session A4
	(Picasso Room B)	(Monet Room A)	(Monet Room B)	(Picasso Room A)
	Transportation	Travel Behavior	Big Data and	Logistics and Supply
10.50 15.10	Network I	Modeling I	Transportation I	Chain Management I
13:50 – 15:10	Poster Session I (Picas	,		
15:10 – 15:40	Coffee Break (Academy	, ,	· tion (Discuss Discuss A)	
15:40 – 17:00	Transportmetrica A (TTRA) - Editorial Board Meeting (Picasso Room A)			Coopies D4
15.40 - 17.00	Session B1 (Picasso Room B)	Session B2 (Monet Room A)	Session B3 (Monet Room B)	Session B4 (Picasso Room A)
	Network	Traffic	Transit management	Regional and
	Optimization	Management I	and Design I	International Transportation
15:40 – 17:00	Poster Session II (Picasso Room)			
17:00 – 17:20	Travel Behaviour and Society (TBS) - Editorial Board Meeting (Picasso Room A)			
18:00 – 20:00	Conference Banquet (Conference Banquet (Academy Room, 1/F)		

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Overview Schedule

Day 2: 13 December 2022 (Tuesday)

Time			Event		
08:30 - 09:00	Registration (Pre-Function Area)				
09:00 – 10:20	Session C1 (Picasso Room)	Session C2 (Monet Room A)	Session C3 (Monet Room B)	Session C4 (Picasso Room A)	Session C5 (Picasso Room B)
	Transportation Network II	Travel Behavior Modeling II	Big Data and Transportation II	Sustainable Transportation	Accessibility and Mobility
10:20 – 10:50	Coffee Break (Ac	ademy Room, 1/F)			
10:50 – 12:10	Session D1 (Picasso Room)	Session D2 (Monet Room A)	Session D3 (Monet Room B)	Session D4 (Picasso Room A)	Session D5 (Picasso Room B)
	Traffic Management II	Transportation Safety	Transportation in Pandemic	Logistics and Supply Chain Management II	Transportation Resilience
12:10 – 13:50	Conference Lune	ch (Academy Room	, 1/F)		
13:50 – 15:10	Session E1 (Picasso Room)	Session E2 (Monet Room A)	Session E3 (Monet Room B)	Session E4 (Picasso Room A)	Session E5 (Picasso Room B)
	Transit Management and Design II	Shared Mobility	Big Data and Transportation III	Mechanism Design	Outstanding Student Paper Award
15:10 – 15:40	Coffee Break (Academy Room, 1/F)				
	Transportmetrica B (TTRB) - Editorial Board Meeting (Picasso Room A)				
15:40 – 16:40	Plenary Session I	I (Picasso Room)			
	How we move into the future: automated transport planning that leverages pervasive data and evolutionary algorithms for humancentric mobility Prof. S Travis WALLER, Keynote Speaker TU Dresden, Germany				
	Deep learning for short-term network-wide road traffic forecasting Dr. Zhiyong CUI, Recipient of the Outstanding Dissertation Award Beihang University, China				
	Closing Session (Picasso Room)			
	Prof. Hong K. LC), Dr. Sen LI			
16:40 – 17:00	Co-chairs, 26 th International Conference of Hong Kong Society for Transportation Studies				
	Prof. Mei-Po KWAN				
	Co-chair, 27 th Inte	rnational Conference	e of Hong Kong Soc	eiety for Transportation	on Studies

Day 1: 12 December 2022 (Monday)

(Picasso Room B)

Session Chair: Dr. Wei MA

13:50 - 15:10

ASSESSING COST-EFFECTIVENESS OF MULTI-TYPE DETECTOR LOCATION SCHEME FOR MULTI-PERIOD SPEED-FLOW ESTIMATION

Hao FU, William H.K. LAM, H.W. HO, Mei Lam TAM and Wei MA

USER EQUILIBRIUM MODEL WITH STOCHASTIC TRAFFIC CAPACITY UNDER MIXED FLOW OF HUMAN-DRIVEN VEHICLES AND AUTONOMOUS VEHICLES

Tatsuya ISHIKAWA and Teppei KATO

STATUS QUO-DEPENDENT USER EQUILIBRIUM MODEL WITH ADAPTIVE VALUE OF TIME

Hongxing DING, Hai YANG, Hongli XU and Ting LI

AN ALTERNATIVE FORMULATION FOR MULTICLASS BI-CRITERIA TRAFFIC

ASSIGNMENT PROBLEM WITHOUT CLASS-SPECIFIC VARIABLES

Zhengyang LI, Guoyuan LI, Zhandong XU and Anthony CHEN

AIRLINE AND HIGH-SPEED RAIL INTERACTIONS UNDER TRAVEL TIME VARIABILITY

Takuya KAWAKITA, Yue HUAI, Enoch LEE and Hong K. LO

Session A2: Travel Behavior Modeling I

(Monet Room A)

Session Chair: Dr. Sisi JIAN

13:50 - 15:10

FACTORS AFFECTING ELDERLY'S ADOPTION OF AUTONOMOUS DEMAND-RESPONSIVE TRANSPORT

W.L.Y. WAN and R.C.P. WONG

ENTRY TIME VERSUS RIDE DISTANCE OF MORNING PEAK-HOUR COMMUTERS ON MASS TRANSIT SYSTEMS

Yaochen MA, Hai YANG and Zhiyuan LIU

EMPIRICAL ANALYSIS AND MODELING OF DECELERATION LENGTH ON THE HORIZONTAL CURVES OF TWO-LANE UNDIVIDED RURAL HIGHWAYS PASSING THROUGH MOUNTAINOUS TERRAIN

V.A. Bharat Kumar ANNA, Srinivasarao KESANA, T. DARLONG and Mallikarjuna CHUNCHU

UNDERSTANDING PRIVATE OWNERSHIP AND USE OF PERSONAL MOBILITY DEVICES (PMDS) IN SOUTH EAST QUEENSLAND

Abraham LEUNG and Matthew BURKE

DYNAMIC LANDHOLDING PATTERN CHOICE MODEL WITH RECURSIVE STRUCTURE

Risa. KOBAYASHI and Eiji. HATO

EVALUATING MOTORCYCLIST INTERACTION USING ADVANCED TRAJECTORY DATA ANALYSIS: A CASE STUDY ON UNSIGNALIZED INTERSECTION

Anamika YADAV, Harpreet SINGH and Ankit KATHURIA

Day 1: 12 December 2022 (Monday)

Session A3: Big Data and Transportation I

(Monet Room B)

Session Chair: Dr. Jintao KE

13:50 - 15:10

A GENERALIZED BAYESIAN DATA FUSION FRAMEWORK FOR URBAN JOURNEY TIME DISTRIBUTION ESTIMATION

Xinyue WU, Andy CHOW, Zhuang LI, William LAM, Wei MA and S.C. WONG

A POISSON-BASED DISTRIBUTION LEARNING FRAMEWORK FOR SHORT-TERM PREDICTION OF FOOD DELIVERY DEMAND RANGES

Jian LIANG, Jintao KE, Hongbo YE, Hai WANG and Jinjun TANG

A MACRO-MICRO SPATIO-TEMPORAL NEURAL NETWORK FOR TRAFFIC PREDICTION

Siyuan FENG, Shuqing WEI, Jintao KE and Hai YANG

MULTI-CLASS PATH TRAVEL TIME ESTIMATION USING MULTI-SOURCE TRAFFIC SENSOR DATA ON URBAN ROADS

Ang LI, William H.K. LAM, Wei MA and Mei Lam TAM

SPEED PREDICTION USING MULTI-VIEW SPATIAL-TEMPORAL GRAPH CONVOLUTIONAL NETWORK

Shuqing WEI, Siyuan FENG and Hai YANG

IMPACTS OF SHARED MOBILITY ON PUBLIC TRANSIT RIDERSHIP: A MACHINE LEARNING APPROACH

Fan GAO and Sylvia Y. HE

Session A4: Logistics and Supply Chain Management I

(Picasso Room A)

Session Chair: Dr. Fangni ZHANG

13:50 - 15:10

NETWORK ANALYSIS FOR GLOBAL SHIPPING NETWORK UNDER THE

INFLUENCE OF ARCTIC SHIPPING

Mark Ching-Pong POO, Yui-Yip LAU and Zaili YANG

AUTONOMOUS UNDERGROUND FREIGHT TRANSPORT SYSTEMS – THE FUTURE OF URBAN LOGISTICS?

Lasse BIENZEISLER, Torben LELKE and Bernhard FRIEDRICH

A DYNAMIC PASSENGER-AND-FREIGHT COALITION STRUCTURE GENERATION ALGORITHM

Fuga MAYUZUMI and Eiji HATO

URBAN CO-MODALITY WITH ELASTIC PASSENGER AND FREIGHT DEMANDS

Mingyou MA, Fangni ZHANG, Wei LIU and Vinayak DIXIT

SERVICE NETWORK DESIGN FOR BUS-INTEGRATED FREIGHT TRANSPORT SYSTEMS UNDER UNCERTAINTY

Jie LIN and Fangni ZHANG

Day 1: 12 December 2022 (Monday)

(Picasso Room B)

Session Chair: Dr. Weihua GU

15:40 - 17:00

PARETO NETWORK OPTIMIZATION WITH ENVIRONMENTAL MEASURES VIA SURROGATE-ASSISTED CROSS ENTROPY METHOD

Zhongyang LU, Andy CHOW and Hoa T.M. NGUYEN

MODELING ELECTRIC VEHICLE HOSTING CAPACITY FOR ELECTRIFIED TRANSPORTATION NETWORK

Qiuju XUE, Anthony CHEN, Guoyuan LI and Zhandong XU

BUS LANE NETWORK DESIGN CONSIDERING TRAVEL TIME RELIABILITY IN MULTI-MODAL TRANSPORT NETWORKS

Muhammad ZEESHAN, Junji URATA and Eiji HATO

HETEROGENEOUS FEEDER SERVICE DESIGN UNDER SPATIALLY

HETEROGENEOUS DEMAND

Li ZHEN and Weihua GU

MODELING THE JOINT NETWORK EQUILIBRIUM WITH PRIVATE AND SHARED AUTONOMOUS VEHICLES

Zhuoye ZHANG and Fangni ZHANG

INTEGRATED OPTIMISATION OF TRANSIT NETWORKS

Y. JIANG, T.K. RASMUSSENA and O.A. NIELSEN

Session B2: Traffic Management I

(Monet Room A)

Session Chair: Dr. Sen LI

15:40 - 17:00

TRAJECTORY CONTROL OF CONNECTED AND AUTONOMOUS VEHICLES IN A MIXED TRAFFIC CORRIDOR

Wenbo SUN and Fangni ZHANG

SEQUENTIAL TRAJECTORY PLANNING APPROACH TO COOPERATIVE ON-RAMP MERGING OF CONNECTED AND AUTOMATED VEHICLE

Jieming CHEN, Yue ZHOU and Edward CHUNG

OPTIMAL DESIGN OF CONTINUOUS AUTONOMOUS VEHICLE LANES BY LINK CAPACITY ALLOCATION

Hiroe ANDO and Satoshi SUGIURA

AN ENHANCED HYBRID TRAFFIC FLOW MODEL FOR MIXED TRAFFIC FLOW WITH CONNECTED AND AUTOMATED VEHICLES

Roberta di PACE, Facundo STORANI, Rui JIANG and Stefano de LUCA

PRICING AUTONOMOUS MOBILITY-ON-DEMAND SERVICES CONSIDERING FLEET DYNAMICS AND TRANSPORTATION NETWORKS

Zhijie LAI and Sen LI

INTEGRATED OPTIMIZATION OF TRAFFIC SIGNAL SETTINGS AND VEHICLE TRAJECTORIES AT URBAN INTERSECTIONS

Yuxiang ZHAO and Wei HUANG

Day 1: 12 December 2022 (Monday)

Session B3: Transit management and design I

(Monet Room B)

Session Chair: Dr. Andy H. F. CHOW

15:40 - 17:00

DRIVER SCHEDULING MODELS UNDER STOCHASTIC TRAVEL TIMES

Yu-Chiun CHIOU and Hsuan-Yu LIN

AN APPLICATION OF APPROXIMATE STOCHASTIC PROGRAMMING WITH NEURAL NETWORKS FOR SERVICE SCHEDULING PROBLEMS

Kejun DU, Zhiya SU, Qiru MA and Hong K. LO

ECONOMICS OF COMPETITION IN COMPLEMENTARY TRANSPORT SERVICE:

INTEGRATING BIKE SHARING SERVICE WITH TRANSIT SYSTEM

Zhengfei ZHENG, Jun WANG, Wei LIU, and Hai YANG

REAL-TIME BUS HEADWAY CONTROL BASED ON POSITIONING AND LOADING INFORMATION

Enoch LEE and Hong K. LO

ADAPTIVE RAIL TRANSIT NETWORK OPERATIONS WITH A ROLLOUT SURROGATE-APPROXIMATE DYNAMIC PROGRAMMING APPROACH

Thi Minh Hoa NGUYEN and Andy H. F. CHOW

Session B4: Regional and International Transportation

(Picasso Room A)

Session Chair: Dr. Kam K.H. NG

15:40 - 17:00

TACTICAL ROUTING FOR AIR TRANSPORTATION IN HKIA TERMINAL

MANEUVERING AREA

Chris HC. NGUYEN, Go Nam LUI, Ka Yiu HUI and Rhea P. LIEM

AIRLINE'S FLEET SIZING AND PRICING STRATEGIES FOR PASSENGER AND

CARGO SERVICES UNDER DEMAND UNCERTAINTY

Zhenwei GONG, Fangni ZHANG and Wei LIU

STATISTICAL CHARACTERISTICS OF RUNWAY ROUGHNESS IN VIEW OF POWER SPECTRAL DENSITY AND COHERENCE FUNCTION

Yebo CEN, Xiang LI and Chenchen LI

COMPARATIVE ANALYSIS ON SPATIAL DISTRIBUTION OF AIRPORTS: A CASE

STUDY OF DOMESTIC PASSENGER TRAFFIC IN JAPAN AND THE U.K.

Koji DOMAE and Hidenobu MATSUMOTO

ANOMALY DETECTION BASED ON MULTI-DIMENSIONAL FLIGHT TRAJECTORY

PROFILE

Ye LIU, Kam K.H. NG and Nana CHU

Day 1: 12 December 2022 (Monday)

Poster Sessions

Poster Session I

(Picasso Room)

Session Chair: Prof. W.Y. SZETO

13:50 - 15:10

PANDEMIC FATIGUE? INSIGHTS FROM ROAD TRAFFIC DURING THE FIFTH WAVE OF COVID-19 IN HONG KONG

Zhiran HUANG and Becky P.Y. LOO

COOPERATIVE DESIGN OF FEEDER BUS AND SHARED BIKE SYSTEMS

Miaoqing HU and W.Y. SZETO

A LOADING AND UNLOADING STRATEGY FOR A BIKE SHARING SYSTEM WITH E-BIKES AND NORMAL BIKES

Mingxuan CHEN and W.Y. SZETO

A MIXED BICYCLE SHARING STATION LOCATION DESIGN PROBLEM CONSIDERING CONVENTIONAL SHARED BIKE AND SHARED E-BIKE

Jiatong SONG and W.Y. SZETO

EXPLORING A PRICING SCHEME FOR TRANSPORTATION-BIDIRECTIONAL-ENERGY-SYSTEM CONSIDERING VEHICLE-TO-GRID TECHNOLOGY: A SYSTEM DYNAMICS MODEL

Zhuowei WANG, Jiangbo (Gabe) YU, Guoyuan LI, Zhandong XU, Chengxiang ZHUGE and Anthony CHEN

MODELLING THE IMPACTS OF E-HAILING SERVICES IN A BI-MODAL SYSTEM WITH BUS AND E-HAILING MODES AFTER MASS GATHERING EVENTS

Hang SU, Xiaolei WANG, Wei LIU and Xiaoning ZHANG

MODELING THE EFFECTS OF AUTONOMOUS VEHICLES ON HUMAN DRIVER CAR-FOLLOWING BEHAVIORS USING INVERSE REINFORCEMENT LEARNING Xiao WEN

MODELLING THE NON-LINEAR EFFECT OF UNCERTAINTY ON TRAVELERS' PREFERENCES FOR MOBILITY-AS-A-SERVICE

Jianing LIU, Chenyang WU, Sisi JIAN and Vinayak DIXIT

COMPETITION AND COOPERATION BETWEEN SHARED MOBILITY AND PUBLIC TRANSPORTATION

Wentao HUANG and Sisi JIAN

CONTINUOUS RELAXATION APPROACH FOR OPTIMAL DEPLOYMENT OF AUTONOMOUS VEHICLE DEDICATED LINKS CONSIDERING THE MIXED FLOW OF AUTONOMOUS AND HUMAN-DRIVEN VEHICLES

S. NITTA, R. TANI and K. UCHIDA

Day 1: 12 December 2022 (Monday)

	Continued
13:50 – 15:10	
	DEMAND SYSTEMS UNDER EVOLVING CHARGING TECHNOLOGIES
	Jing GAO and Sen LI
	NETWORK-WIDE LANE-LEVEL TRAFFIC MULTIVARIATES PREDICTION BY
	CLUSTERING AND DEEP LEARNING
	Xiexin ZOU and Edward CHUNG
	A TRIP-CHAIN-BASED PATH FLOW ESTIMATOR FRAMEWORK FOR CONNECTED

A TRIP-CHAIN-BASED PATH FLOW ESTIMATOR FRAMEWORK FOR CONNECTEI AND AUTONOMOUS VEHICLES

Guoyuan LI, Yu GU, Anthony CHEN and Daniyar KURMANKHOJAYEV

CALIBRATION OF A STOCHASTIC FUNDAMENTAL DIAGRAM USING MULTI-RESOLUTION

<u>Lu BAI</u>, S.C. WONG, Pengpeng XU, Wai WONG, Pan LIU, Andy H.F. Chow, William H.K. LAM and Wei MA

HOW TO OPTIMIZE THE FEATURE SELECTION FOR THE PREDICTION OF LANE-CHANGING INTENTION? A META-ANALYSIS

Ruifeng GU, Ye LI and N.N. SZE

"NEW FLYERS" IN BIG DATA ERA: A CASE STUDY OF WUHAN

Hanxi MA and Jiangping ZHOU

INVESTIGATING INJURY SEVERITY OF SINGLE-VEHICLE AND MULTI-VEHICLE CRASHES AT FREEWAY RAMP AREAS

Penglin SONG, N.N. SZE, Huimin HU, Dianchen ZHU and Jing GUO

ESTIMATING PROBABILISTIC DYNAMIC ORIGIN-DESTINATION DEMANDS USING MULTI-DAY TRAFFIC DATA ON COMPUTATIONAL GRAPHS

Wei MA and Sean QIAN

AGE-FRIENDLY PUBLIC TRANSPORTATION: EVIDENCE FROM TRAVEL BEHAVIOURS OF OLDER ADULTS IN HONG KONG'S METRO STATIONS

Shuyu LEI, Jiali ZHOU and Jiangping ZHOU

MUILT-OUTPUT BIKE USAGE PREDICTION AND ANALYSIS

Meng XU, Yining DI, Zheng ZHU, Hai YANG and Xiqun CHEN

INFLUENCE OF THE COVID-19 PANDEMIC ON PERCEIVED VALUE TOWARDS FINE DINING FOOD DELIVERY: A PRELIMINARY STUDY IN SINGAPORE

Cheng-Hsien HSIEH and Yu Sheng CHEW

Day 1: 12 December 2022 (Monday)

Poster Session II

(Picasso Room)

Session Chair: Prof. Xiaowen FU

15:40 - 17:00

A MULTI-AGENT-BASED SIMULATION: EXPLORE THE ADAPTABILITY OF ROUTE DEVIATION DEMAND-RESPONSIVE TRANSIT

Hui WANG, Jing TENG and Becky P.Y. LOO

THE MULTI-PERIOD ASYMMETRIC TRANSIT FREQUENCY DESIGN PROBLEM

Jun GONG and Wai Yuen SZETO

A NEW STRATEGY FOR THE REAL-TIME LIMITED-STOP BUS SERVICE DESIGN PROBLEM

Wai Yuen SZETO and Jintao HU

MODELING TRAVELERS' HETEROGENOUS VALUE OF SAFETY IN THE CONTINUOUS MULTICLASS TRAFFIC ASSIGNMENT PROBLEM

Umer MANSOOR, Zhengyang LI, Guoyuan LI and Anthony CHEN

MODELING PARKING CHOICE AND ROUTE CHOICE OF CONNECTED AUTONOMOUS ELECTRIC VEHICLE CONSIDERING RANGE ANXIETY

Yiyang PENG, Guoyuan LI, Zhandong XU and Anthony CHEN

UNSUPERVISED KNOWLEDGE ADAPTATION FOR PASSENGER DEMAND FORECASTING

Can LI, Lei BAI, Wei LIU, Lina YAO and S. Travis WALLER

REVENUE SHARING AND RESOURCE ALLOCATION FOR COOPERATIVE MULTIMODAL TRANSPORT SYSTEMS

Xiaoshu DING and Sisi JIAN

TOWARD BETTER EQUITY AND SUSTAINABILITY: A MACHINE LEARNING APPROACH FOR TRAVEL PATTERN FEATURE ANALYSIS WITH MOBILITY-AS-A-SERVICE

Jianing LIU, Xiao WEN and Sisi JIAN

MANAGING EMISSIONS AND BUS LANE: A CARBON CREDIT BASED REWARD SCHEME

Lin YU, Yanyan DING and Sisi JIAN

MANAGING ON-DEMAND FOOD-DELIVERY PLATFORMS IN A REGULATED MARKET

Yang LIU and Sen LI

ANALYSIS OF THE INFLUENCING FACTORS OF DIFFERENTIATED PARKING FEES BASED ON STRUCTURAL EQUATION MODELING

Yuwei YANG, Yinjie LUO, Jiao YE and Jun CHEN

Day 1: 12 December 2022 (Monday)

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15:40 - 17:00

EXPLOITATION-EXPLORATION ACTIVE LEARNING EMBEDDED COMBINED METHOD OF SURROGATE MODEL AND GENETIC ALGORITHM FOR TRAFFIC SIGNAL OPTIMISATION

Zhixian TANG and Edward CHUNG

ADAPTIVE BARZILAI-BORWEIN PROJECTION METHOD WITH APPLICATION TO MIXED-FLOW MULTICLASS TRAFFIC ASSIGNMENT

D. KURMANKHOJAYEV, G. LI and A. CHEN

DEVELOPMENT OF PEDESTRIAN CRASH FREQUENCY MODEL USING THREE-DIMENSIONAL PEDESTRIAN NETWORK: A MULTIVARIATE BAYESIAN SPATIAL REGRESSION MODEL

Manman ZHU and N.N. SZE

DEVELOPMENT AND VALIDATION OF AN OMNI DIRECTIONAL COLLISION WARNING SYSTEM

Wenjing ZHAO, Siyuan GONG, Dezong ZHAO, Fenglin LIU and N.N. SZE

A PERSONALIZED PAGERANK METHOD FOR COVID-19 TRANSMISSION RISK ESTIMATION BASED ON TRANSIT SMART CARD DATA

Jiali ZHOU, Zhan ZHAO and Jiangping ZHOU

OPTIMAL AUTOMATED VEHICLE HEADWAY CONTROL FOR DYNAMIC SYSTEM OPTIMAL ON GENERALNETWORKS

Wei MA and Jinxiao DU

THE EFFECTS OF BANKRUPTCY ON AIRLINE YIELD AND FREQUENCY: THE CASE OF THE DUOPOLISTIC DOMESTIC MARKET IN JAPAN

Kam To NG, Xiaowen FU, Jaewoon LEE, Katsuhiro YAMAGUCHI and Chuanyan ZHU

TRAVEL DEMAND ANALYSIS AND VISUALIZATION DESIGN OF BEIJING-HEBEI LONG-DISTANCE BUS

Yuxuan LIU, Yuyang ZHOU, Zizi LI, Yunzhe HAN, Ying ZHAO and Yanyan CHEN

UNCERTAINTY ESTIMATION OF CONNECTED VEHICLE PENETRATION RATE

Shaocheng JIA, S.C. WONG and Wai WONG

Day 2: 13 December 2022 (Tuesday)

Session C1: Transportation Network II

(Picasso Room)

Session Chair: Dr. Wei LIU

09:00 - 10:20

AN INTEGRATED MICRO- AND MACRO-LEVEL AGENT-BASED SIMULATION APPROACH FOR A MASS-TRANSIT RAIL SYSTEM

Songyi CUI, Wenbo SUN, Yong-Hong KUO, Fangni ZHANG, George Q. HUANG and Reynold C.K. CHENG

COMPREHENSIVE SIMULATION PLATFORM FOR RIDE-SOURCING MARKETS: MODULES AND FUNCTIONS

Siyuan FENG, Taijie CHEN, Yuhao ZHANG, Jintao KE and Hai YANG

LEARNING AND MANAGING STOCHASTIC NETWORK TRAFFIC DYNAMICS: A DIGITAL TWIN BASED APPROACH

Qingying HE, Mingyou MA, Can LI and Wei LIU

INCORPORATING SPATIAL ANALYSIS INTO THE LEVEL OF CONGESTION CAUSED BY TRAFFIC INCIDENTS ON URBAN ROAD NETWORKS

Zhenjie ZHENG, Zhengli WANG, Zhiyuan SUN and Wei MA

RELIABLE SHORTEST PATHFINDING METHOD IN A CORRELATED ROAD NETWORK: HYPERGRAPH APPROACH

Kenetsu UCHIDA and Ryuichi TANI

INSTANTANEOUS TRAFFIC ASSIGNMENT UNDER DEMAND UNCERTAINTIES

Yuxin SHI, William H.K. LAM, Wei MA, H.W. HO, Mei Lam TAM, Hao FU and Pengjie LIU

Session C2: Travel Behavior Modeling II

(Monet Room A)

Session Chair: Dr. R.C.P. WONG

09:00 - 10:20

DIFFERENTIAL LICENSE PLATE PRICING AND ELECTRIC VEHICLE ADOPTION IN SHANGHAI

Guodong LI, W. D. WALLS and Xiaoli ZHENG

ASSESSMENT OF DRIVER'S ATTITUDE AND BEHAVIOR OF RIDE-SHARING SERVICES FROM PASSENGERS' PERSPECTIVE IN DHAKA CITY

Mubtasim SABAB, Sarah ISLAM, Mahmud ISLAM, Jemima TASNIM and Shakil Mohammad RIFAAT

ANALYSIS OF PICK-UP AND DROP-OFF BEHAVIORS USING PRIVATE VEHICLES IN A RURAL CITY IN JAPAN

Masatoshi HASEGAWA, Toshiyuki NAKAMURA, Masahiko SUZUMURA and Takayuki MORIKAWA

EVALUATION OF THE ODD-EVEN POLICY ON THE BEHAVIOURAL SHIFT OF CAR COMMUTERS IN DELHI

Ranjana SONI, Geetam TIWARI and Manoj M.

SECONDARY ACTIVITY DESTINATION CHOICE FRAMEWORK BASED ON RESIDENT ACTIVITY CONSTRAINTS

Chao YANG, Mingyang CHEN and Quan YUAN

Day 2: 13 December 2022 (Tuesday)

Session C3: Big Data and Transportation II

(Monet Room B)

Session Chair: Dr. Hao FU

09:00 - 10:20

HIERARCHICAL GRAPH CONTRASTIVE LEARNING FOR REGION-AWARE RIDE-HAILING DRIVER PROFILING

Kehua CHEN, Jindong HAN, Siyuan FENG and Hai YANG

COLLABORATIVE PARKING VACANCY PREDICTION FOR SENSOR MISSING IN PARTIAL LOTS

Beiyu SONG, Huachi ZHOU, Xiao HUANG, Barbara SIU and Wei MA

A DATA DRIVEN APPROACH FOR TRAFFIC PARAMETERS ESTIMATION BASED ON DNN-BN USING SAMPLE TRAJECTORY DATA

Shuling WANG, Kejun DU, Gege JIANG, A.U.Z. PATWARY and Hong K. LO

ESTIMATION OF NETWORK-WIDE TRAFFIC SPEEDS AND FLOWS WITH HETEROGENEOUS DATA

Shaojie LIU, Mei Lam TAM, William H.K. LAM, Wei MA and H.W. HO and Hao FU

AUTOMATIVE EXTRACTION OF VEHICLE'S LATERAL PLACEMENT DATA: AN APPLICATION OF IMAGE PROCESSING

Prashant SHARMA, Mohan Kumar SOMAVARAPU, Subhadip BISWAS and Joy PAL

ANALYSIS OF CHANGES IN TRAFFIC AND BEHAVIOR PATTERNS AT AIRPORTS USING WI-FI PACKET SENSORS

Riku NAGANAWA, Toshiyuki NAKAMURA and Toshiyuki YAMAMOTO

Session C4: Sustainable Transportation

(Picasso Room A)

Session Chair: Dr. Lubing LI

09:00 - 10:20

A STUDY ON THE INTENSITY OF TRAFFIC INDUCED NOISE ON TRAFFIC POLICE AT COLLECTOR AND ARTERIAL ROADS IN DHAKA CITY.

Sadman Sakib, Md. Nawrose NEON, Rahat Bin Mahmud MAHI, Imtiaz MUSFIQUE and Shakil Mohammad RIFAAT

DEVELOPMENT OF A REAL-TIME ON-ROAD EMISSION INVENTORY IN HONG KONG

Xin LI, Dasa GU, Tilman Leo HOHENBERGER, Yik Him FUNG, Jimmy Chi Hung FUNG and Alexis Kai Hon LAU

EXPLORING THE SUSTAINABILITY OF CARPOOLING BASED DEMAND RESPONSIVE TRANSIT SYSTEM FROM THE PERSPECTIVE OF TIMEBANK

Jyun-Han TSAI, Chih-Peng CHU and Cheng-Chieh CHEN

RECENT TRANSPORTATION INFRASTRUCTURE BOOM IN AUSTRALIA: TECHNO-ECONOMIC ASSESSMENT

Mousumy AKTER

EFFECTIVENESS OF TRAVEL DEMAND MANAGEMENT POLICIES IN CONTROLLING URBAN AIR POLLUTION: A STATED PREFERENCE STUDY OF BANGKOK

P. THAITHATKUL, P. SANGHATAWATANA, O. ANUCHITCHANCHAI, And S. CHALERMPONG

Day 2: 13 December 2022 (Tuesday)

Session C5: Accessibility and Mobility

(Picasso Room B)

Session Chair: Dr. Ka Fai NG

09:00 - 10:20

ON MEASURING WALKING ACCESSIBILITY: A LINK-BASED APPROACH

Zheng LIANG, Hong K. LO and Ka Fai NG

WALKING ACCESSIBILITY TO METRO STATIONS FOR DIFFERENT INDIVIDUALS: A CASE STUDY OF HUNG HOM STATION IN HONG KONG

Dawei CHENG, Yingying XU, Ho-Yin CHAN and Anthony CHEN

UNDERSTANDING OLDER PEOPLE 'S TRAVEL CHARACTERISTICS: A COMPARISON OF DIFFERENT SURVEY METHODS

Feiyang ZHANG and Becky LOO

TRAVEL PATTERNS OF ELDERLY HIGH-SPEED RAIL PASSENGERS AND POLICY IMPLICATIONS

Jiemin XIE, Shuguang ZHAN, S.C. WONG, Keyu WEN, Lixia QIANG and S.M. LO

Session D1: Traffic Management II

(Picasso Room)

Session Chair: Dr. Enoch LEE

10:50 - 12:10

OPERABLE ADAPTIVE TRAFFIC SIGNAL CONTROL: FORMULATION AND

IMPLEMENTATION

Lubing LI, Ka Fai NG, Jacob LO and Hong K. LO

DEMONSTRATION-GUIDED MULTI-AGENT REINFORCEMENT LEARNING FOR COORDINATED RAMP METERING AND PERIMETER CONTROL ON CITY-WIDE NETWORKS

Zijian HU and Wei MA

ADAPTIVE TRAFFIC SIGNAL CONTROL WITH LANE ALLOCATION AT ISOLATED INTERSECTIONS UNDER STOCHASTIC DEMAND

Haofan CHENG, Guoyu HUANG and Wei HUANG

MACHINE LEARNING BASED ADAPTIVE COORDINATED TRAFFIC CONTROL

Lijuan WAN and Hong K. LO

A HARDWARE-IN-LOOP SIMULATION PLATFORM OF COOPERATIVE VEHICLE INFRASTRUCTURE SYSTEM

Yang SONG, Wenjie PI, Hexiang LIANG, Zixu QIN, Xiaoguang YANG, Chengyuan MA and Jichen ZHU

TRANSIT SIGNAL PRIORITY FOR SIGNALIZED INTERSECTIONSWITH DEEP

REINFORCEMENT LEARNING

Meng LONG and Edward CHUNG

Day 2: 13 December 2022 (Tuesday)

Session D2: Transportation Safety

(Monet Room A)

Session Chair: Dr. Tony N.N. SZE

10:50 - 12:10

A SYSTEMATIC REVIEW TO IDENTIFY THAILAND'S FUTURE ROAD SAFETY MANAGEMENT CAPACITIES

Nichamon THONGPHAT, Sumet ONGKITTIKUL, Nuntachart RATANABURI and Nichcha ANGSUPHANICH

A DEEP LEARNING APPROACH FOR BOUNDARY CRASH EFFECT IN SPATIAL BICYCLE CRASH ANALYSIS

Hongliang DING, Yuhuan LU, and N.N. SZE

THE MOTORCYCLE RIDER BEHAVIOUR QUESTIONNAIRE AS A PREDICTOR OF CRASHES: A SYSTEMATIC REVIEW AND META-ANALYSIS

Shivam Singh CHOUHAN, Ankit KATHURIA and Chalumuri Ravi SEKHAR

ASSESSMENT OF WOMEN'S SAFETY IN RIDE-SHARING SERVICES OF DHAKA CITY

R.M. Rafsanzani LABIB, Md. Alvi ABDAL, Md. Sajed RAHMAN, Fawziya Fariha ANAN, Tanzila Zannat MAHZABEEN and Shakil Mohammad RIFAAT

PEDESTRIAN-VEHICLE CRASH ANALYSIS: ADVANCES IN METHODS AND INSIGHTS ABOUT PEDESTRIAN RISK EXPOSURE MEASURES

Ting LIAN, Becky P.Y. LU and Zhuangyuan FAN

INVESTIGATING EFFECT OF PERSONALITY AND SKILLS ON DRIVING BEHAVIOR AND ACCIDENT INVOLVEMENT: A NOVEL APPROACH USING NATURALISTIC DRIVING AND SELF REPORTED DATA OF PROFESSIONAL BUS DRIVERS

Harpreet SINGH and Ankit KATHURIA

Session D3: Transportation in Pandemic

(Monet Room B)

Session Chair: Dr. Jiangping ZHOU

10:50 - 12:10

INTENTIONAL TRAVEL GROUPS AND SOCIAL NETWORKS DURING THE COVID-19 PANDEMIC

Mingzhi ZHOU, Shuyu LEI, Jiangyue WU, Hanxi MA, David LEVISON, Jiangping ZHOU

THE STUDY OF COVID-19'S IMPACT ON THE TRAVEL MOBILITY OF VARIOUS SOCIAL GROUPS IN CHINA'S GREATER BAY AREA VIA MOBILE PHONE BIG DATA YU PAN and Sylvia Ying HE

TRANSPORT DISRUPTION IN THE POST-COVID ERA - INSIGHTS FROM A SURVEY OF GLASGOW COMMUTER IN HYBRID WORKING PATTERN

Jingsi LI and Neil FERGUSON

THE IMPACT OF COVID-19 ON THE TRANSPORT INFRASTRUCTURE SECTOR IN THAI CAPITAL MARKET

<u>Sumet ONGKITTIKUL</u>, Atiporn SHIMNOI, Pawika KLAHARN, Titaporn ROJSIRIKULCHAI and Mintrapan CHAENGLUM

Day 2: 13 December 2022 (Tuesday)

Session D4: Logistics and Supply Chain Management II

(Picasso Room A)

Session Chair: Dr. Yong-Hong KUO

10:50 - 12:10

PLATOON-BASED CAPACITY ANALYSIS OF MIXED HDV AND CAV AT THE SIGNAL-FREE INTERSECTION

Rong ZHAO, Hongbo YE and Edward CHUNG

EXPLORING E-COMMERCE DELIVERY DISTRIBUTION USING UNMANNED AERIAL VEHICLES (UAV) IN SOUTH DELHI

Arun KUMAR, Sairam DASARI and Mayank MATHUR

COMPARISON OF FREIGHT TRANSPORT NETWORK OF EUROPEAN UNION AND SOUTH ASIAN SUBCONTINENT INCLUDING BANGLADESH

Mousumy AKTER

GROUP BUYING WITH CONSUMER DISAPPOINTMENT AT FAILED DEALS

Jie WANG, Yong-Hong KUO, Jun MA, Yanyi YANG and Chun-Hung CHENG

EFFECTS OF OPERATIONAL RESTRICTION AND PRICING POLICY IN LAEM CHABANG DOMESTIC PORT: EX-POST EVALUATION AND ANALYSIS OF POLICY MAKERS BEHAVIOURS

Sumet ONGKITTIKUL, Atiporn SHIMNOI, Pawika KLAHARN, T. ROJSIRIKULCHAI and M. CHAEGLUM

DATA-DRIVEN INFERENCE AND OPTIMIZATION FOR IMPUTING NON-OBSERVABLE HUMAN PREFERENCES IN STAFF SCHEDULING

Jiangxue HAN and Yong-Hong KUO

Session D5: Transportation Resilience

(Picasso Room B)

Session Chair: Prof. Anthony CHEN

10:50 - 12:10

IDENTIFYING THE CRITICAL O-D DEMANDS FOR MANAGING TRANSPORTATION NETWORK RESILIENCE

Kai QU, Xiangdong XU and Anthony CHEN

TRANSIT USAGE IN SOCIAL SHOCKS: A CASE STUDY OF STATION-LEVEL METRO RIDESHIP IN ANTI-EXTRADITION MOVEMENTS IN HONG KONG

Ho Yin CHAN, Hanxi MA and Jiangping ZHOU

ONLINE PARAMETER ESTIMATION METHOD OF A MULTI-AGENT SIMULATOR FOR DEMAND PREDICTION IN A DISASTER-RECOVERY PERIOD

Yosuke MOCHIZUKI and Junji URATA

CONNECTIVITY ENHANCEMENT NETWORK DESIGN PROBLEM FOR EMERGENCY

RECEIVING BASES: ON THE CONCEPT OF ISOLATION VULNERABILITY

Michiki AKIOKA and Satoshi SUGIURA

DYNAMIC CONSTRUCTION OF CONCENTRIC CIRCLE MAPS IN URBAN RAIL TRANSIT

Songyi CUI, Yingying XU, Yong-Hong KUO and Anthony CHEN

Detailed Presentation Schedule Day 2: 13 December 2022 (Tuesday)

	Session E1: Transit Management and Design II
	(Picasso Room)
	Session Chair: Prof. Hai YANG
13:50 - 15:10	AUTO, RIDE-HAILING, OR PARK AND RIDE? EXAMINING COMMUTING TRIP PATTERNS
	IN THE CONTEXT OF MOBILITY-AS-A-SERVICE
	Manlian PAN and Xiaotong SUN
	THE WHITE TRIANGLE: A PATH TOWARDS EFFICIENT AND INTEGRATED LIGHT RAIL
	SYSTEMS
	Michael BOURKE and Kasun de Silva WIJAYARATNA
	DYNAMIC FLEXIBLE BUS SERVICE CONSIDERING ORDER CANCELLATION
	Manzi LI, Enoch LEE and Hong K. LO
	EXPLORING THE INTERRELATIONSHIP AMONG MASS TRANSIT, INFORMAL
	TRANSPORTATION, ROAD NETWORK, AND BUILT-ENVIRONMENT WITH THE
	GEOGRAPHICALLY WEIGHTED REGRESSION MODELS
	Saksith CHALERMPONG and Ornicha ANUCHANCHAI
	NOVEL RAILWAY OPERATION SCHEME OF PROVIDING EXPRESS/LOCAL SERVICE VIA
	SINGLE TRAIN
	Tomoki KISHIKAWA and Kentaro WADA
	FAIR TRANSIT FLEET ALLOCATION
	Soheila AALAMI, Naser El- SHEIMY and Lina KATTAN

	Session E2: Shared Mobility
	(Monet Room A)
	Session Chair: Dr. Jintao KE
13:50 - 15:10	BIKE-SHARING SYSTEM REPOSITIONING WITH BROKEN BIKES: COMBINING VEHICLE-
	BASED COLLECTION AND LABOR-BASED ON-SITE REPAIR
	Runqiu HU and Wai Yuen SZETO
	EFFECTS OF AN OPTIMIZED CARSHARING-SYSTEM DESIGN ON DEMAND: A JOINT
	OPTIMIZATION-SIMULATION APPROACH
	Filip KRISTOFERSSON, Rasmus RINGDAHL, Gunnar FLÖTTERÖD and Christiane SCHMIDT
	PRICE OF COMPETITION AND FRAGMENTATION IN RIDE-SOURCING MARKETS
	Yaqian ZHOU, Hai YANG and Jintao KE
	OPTIMAL FLEET SIZE AND DISPATCHER NUMBER FOR ONE-WAY CARSHARING
	SERVICES CONSIDERING BREAK REQUIREMENT
	<u>Lu YANG</u> and Min XU
	SPATIOTEMPORAL WORK SLICES BASED RIDE-SOURCING DRIVERS' WORKING
	PATTERNS
	Yining DI, Meng XU, Zheng ZhU, Hai YANG and Xiqun CHEN
	STATIC BIKE REPOSITIONING PROBLEM WITH STAFF ASSIGNMENT
	<u>Chin Sum SHUI</u> and Yi Ting CHEN

Detailed Presentation Schedule Day 2: 13 December 2022 (Tuesday)

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	Session E3: Big Data and Transportation III
	(Monet Room B)
	Session Chair: Dr. Hongbo YE
13:50 - 15:10	MULTIMODAL TRANSPORT DEMAND FORECASTING VIA FEDERATED LEARNING
	Can LI, Wei LIU and Fangni ZHANG
	REINFORCING DATA PRIVACY PROTECTION IN THAILAND IN THE AGE OF THE
	AUTONOMOUS VEHICLE TECHNOLOGY
	S. THONGMEENSUK, Y. WATTANASIT and C. NAPATANAPONG
	LARGE SCALE POINTS-TO-POINTS HIGHWAY LATENCY PREDICTION
	Baiyue HE, Zehui LUO, Man Fung HO, Zhiquan LAO, Tat Shing CHOI and K.Y. Michael WONG
	DATA ENGINEERING ENHANCES THE ACCURACY OF SHORT-TERM TRAFFIC LATENCY
	PREDICTION
	Man Fung HO, Lap SO, Jiaqi ZHANG, Yuheng ZHAO, Huiyang LU, Tat Shing CHOI and Kwok Yee
	Michael WONG
	USING OPEN DATA AND DEEP LEARNING TO EXPLORE WALKABILITY: A BIG DATA-
	DRIVEN STUDY
	Xuan HE and Sylvia Ying HE
	DOES THE NEGLECT OF THE SPATIOTEMPORAL HETEROGENEITY OF RIDESPLITTING
	SERVICE WILLINGNESS IN MODELLING LEAD TO BIASED PERFORMANCE ESTIMATION?
	A BIG DATA-BASED SIMULATION EXPLORATION
	Guan HUANG and Anthony Gar On YEH

	Session E4: Mechanism Design
	(Picasso Room A)
	Session Chair: Dr. Sisi JIAN
13:50 - 15:10	AN INCENTIVE STRATEGY FOR THE RETENTION OF IMPATIENT PASSENGERS IN RIDE-
	SOURCING MARKETS
	Yuhan LIU, Xiaoran QIN and Hai YANG
	PUBLIC ACCEPTANCE OF CAR-POOLING AND TAXI RIDE-SHARING IN HONG KONG
	R.C.P. WONG, Jintao KE, W.Y. SZETO, P.L. MAK
	INCORPORATING MATCHING MECHANISMS INTO MARKET DESIGN FOR
	REHABILITATION RESERVATION SYSTEM
	Chen-Yu LAN, Chih-Peng CHU and Cheng-Chieh CHEN
	A COOPERATIVE TOKEN MECHANISM WITHOUT PAYMENTS FOR EFFICIENT ROAD USE
	Soki TAKANO and Yusuke HARA
	STUDY ON THE POSSIBILITY TO CHANGE TRAVEL BEHAVIOR BY GAMIFICATION TO
	EXPRESSWAY DRIVERS
	<u>Takumi ASAOKA</u> and Toshiyuki NAKAMURA
	ON-DEMAND RIDE-SOURCING MARKETS WITH CRYPTOCURRENCY-BASED FARE-
	REWARD SCHEME
	<u>Donghun SON</u>

Day 2: 13 December 2022 (Tuesday)

	Session E5: Outstanding Student Paper Award
	(Picasso Room B)
	Session Chair: Dr. Sen LI
13:50 - 15:10	REPLICA EXCHANGE MCMC SAMPLING TO INFER LATENT CLASS MODEL
	Masahiro ARAKI
	EV MANUFACTURER ENCROACHMENT INTO TRANSPORT MARKET UNDER
	ASYMMETRIC INFORMATION
	Yanyan DING
	DRIVING A FUTURE TRANSPORT SCHEME TOWARDS SPATIAL JUSTICE: MOBILITY-AS-
	A-SERVICE-ORIENTED PUBLIC TRANSIT AND ITS ACCESSIBILITY
	<u>Si QIAO</u>

