ISS2015 Program at a Glance

Saturday, July 4		
Schedule		Room
12:30–	Registration	
13:30–13:45	Opening Session	904
13:50–14:50	Keynote Speech 1 (Paolo Toth)	904
14:50–15:15	Coffee Break	
15:15–16:45	Technical Session 1A: Stochasticity and Uncertainty	904
	Technical Session 1B: Job-Shop and Line-Balancing	902
17:00–18:30	Technical Session 2A: Routing	904
	Technical Session 2B: Productivity and Efficiency of Real-World Systems	902
Sunday, July 5		
8:30–	Registration	
9:15–10:45	Technical Session 3A: Supply Chain Risk Management and Humanitarian Logistics	901
	Technical Session 3B: Crew/Staff Scheduling	904
10:55–11:55	Keynote Speech 2 (Dominique de Werra)	901
11:55–13:20	Lunch	
13:20–15:15	Technical Session 4A: Scheduling and Urban Operations Research	901
	Technical Session 4B: Optimization and Planning	904
15:15–15:40	Coffee Break	
15:40–16:50	Technical Session 5A: Sports Scheduling	901
	Technical Session 5B: Graphs and Networks	904
17:05–18:15	Technical Session 6A: Computational Intelligence Methods and Applications for Tourism	901
	Technical Session 6B: Cutting and Packing	904
19:20–21:05	Banquet	
Monday, July 6		
8:45–	Registration	
9:15–10:25	Technical Session 7A: Manufacturing	901
	Technical Session 7B: Assignment	904
10:35–11:35	Keynote Speech 3 (David Ng)	901
11:35–11:50	Closing Session	901

Program

Saturday, July 4

12:30–

Registration

13:30–13:45

Opening Session

13:50–14:50

Keynote Speech 1

K1: Graph theory representations, ILP models and algorithms for the solution of passenger railway optimization problems
Paolo Toth

14:50–15:15

Coffee Break

15:15–16:45

Technical Session 1A: Stochasticity and Uncertainty

1A1: Optimization of a single-item repairable inventory system with new and warranty demand
Janny Leung and Yizhong Lin

1A2: Optimizing allocation of running time supplements via stochastic programming
Takayuki Shiina, Yuto Agehara, Susumu Morito and Jun Imaizumi

1A3: A solution algorithm for leader-follower multi-period supply chain planning under demand uncertainty
Okihiro Yoshida and Tatsushi Nishi

1A4: Reactive project scheduling method to enhance project progress under uncertainty
Daisuke Morita and Haruhiko Suwa

Technical Session 1B: Job-Shop and Line-Balancing

1B1: Stochastic job-shop scheduling: A hybrid approach combining pseudo particle swarm optimization with the Monte Carlo method
Kenta Araki and Yasunari Yoshitomi

1B2: A new Lagrangian bound for min-sum job-shop scheduling
Shunji Tanaka, Boris Detienne and Ruslan Sadykov

1B3: An application of the linear partition to a lexicographic bi-criteria line balancing problem with related task groups
Yoshiyuki Karuno and Keiju Takayama

1B4: Development of factory science: Duality and balancing of the job shop (FS) vs. conveyor system by Matsui's flow approach
Masayuki Matsui

17:00–18:30

Technical Session 2A: Routing

2A1: Dynamic programming based heuristic algorithm for a delivery work leveling problem
Yoshiyuki Karuno and Kento Furukawa

2A2: An efficient column generation heuristic for vehicle routing with multiple use of vehicles for a rental business
Takuya Hirota, Susumu Morito and Kento Hara

2A3: Petri net representation and analysis of 0-1 integer programming problems: Application to routing problems for automated guided vehicles
Akito Kodama and Tatsushi Nishi

2A4: Reinforcement learning approach for negotiation-rules acquisition in AGV transportation systems
Masato Nagayoshi and Kazutoshi Sakakibara

Technical Session 2B: Productivity and Efficiency of Real-World Systems

2B1: Trade-off between material removal rate and productivity based on multi-objective optimization during milling Inconel 718
Mohd Shahir Kasim, Che Hassan Che Haron, Jaharah A.Ghani, Teruaki Ito, Mohd Amran Md Ali, Mohd Hadzley Abu Bakar, Raja Izamshah, Muzfirah Abdul Hadi, Norazlin Nasir and Yong Siang Teoh

2B2: Scheduling of machining parameter to optimize productivity in medical implant fabrication
Raja Izamshah, Mohd Shahir Kasim, Effendi Mohamad, Mohd Amran Ali, Mohd Hadzley, Teruaki Ito, Norazlin Nasir and Yong Siang Teoh

2B3: A real time warehouse control system
Dong Woo Son, Jung Yong Seo, Yoon Seok Chang and Woo Ram Kim

2B4: A study on delivery service with pallet operation efficiency
Tomoyasu Takahashi, Yuta Kurose and Takao Terano

Sunday, July 5

8:30–

Registration

9:15–10:45

Technical Session 3A (organized session):
Supply Chain Risk Management and Humanitarian Logistics
Organizers: Mikio Kubo and Kazuhiro Kobayashi

3A1: Perspective reformulation for optimal fuel routing problem
Mirai Tanaka and Kazuhiro Kobayashi

3A2: Evaluation of the efficacy of humanitarian logistics
Takeo Kobayashi, Yasutaka Kainuma and Khojasteh Yacob

3A3: Price and service competition of a supply chain system under real-time demand disruptions
Syed Mithun Ali and Koichi Nakade

3A4: The single machine total tardiness scheduling problem with maximum allowable tardiness
Jaegon Kim, Sanghwa Song, Kwangsup Shin and Kwanho Kim

Technical Session 3B: Crew/Staff Scheduling

3B1: Favorable solution in multi-objective nurse rerostering problem
Tenda Okimoto, Shih-Min Wu, Katsutoshi Hirayama and Katsumi Inoue

3B2: Operating rooms scheduling system: A case study in Aichi Medical University Hospital
Mari Ito, Atsuo Suzuki and Yoshihiro Fujiwara

3B3: A heuristic algorithm for the crew pairing problem in airline scheduling
Wei Wu, Yannan Hu, Hideki Hashimoto, Tomohito Ando, Takashi Shiraki and Mutsunori Yagiura

3B4: Application of two-level decomposition algorithm to airline crew rostering problems
Tsubasa Doi, Tatsushi Nishi, Kenji Ueda, Naohiko Suzuki and Keiji Ojima

10:55–11:55

Keynote Speech 2

K2: Sports scheduling: An exciting playground
Dominique de Werra

11:55–13:20

Lunch

13:20–15:15

Technical Session 4A (organized session):
Scheduling and Urban Operations Research
Organizer: Ken-ichi Tanaka

4A1: A scheduling problem for locating EV battery charging stations
Mihiro Sasaki, Kazuya Matsui and Ken-ichi Tanaka

4A2: Simultaneous dynamics of multiple retail category distributions forcusing on trip chaining behavior
Yudai Honma

4A3: Ambulance location analysis with stochastic coverage model
Takehiro Furuta and Hozumi Morohosi

4A4: Mathematical programming models for road repair scheduling: On aging bridges in Japan
Shungo Koichi

4A5: Extensions of the maximum flow-covering location and service start time problem based on the time spent in a facility
Ken-ichi Tanaka

Technical Session 4B: Optimization and Planning

4B1: Optimal maintenance policy of multiple parts with operating cost dependent on repair level
Koichi Nakade and Hiroaki Mikuri

4B2: Constraint programming model for operational planning and scheduling problem in automatic picking system
Toshiyuki Miyamoto, Kazuyuki Mori, Shoichi Kitamura and Yoshio Izui

4B3: Graph-based heuristics for operational planning and scheduling problem in automatic picking system
Yohei Hase and Shinji Imahori

4B4: Lexicographic bi-criteria food packing problem with a given tolerance for the total weight of a package
Yuichi Hashiguchi, Yoshiyuki Karuno and Kenju Tateishi

4B5: Strategic facility location design of the global supply-chain considering inventory amount
Yasutaka Koga, Satoshi Yoshida, Toshiya Kaihara and Nobutada Fujii

15:15–15:40

Coffee Break

15:40–16:50

Technical Session 5A (organized session): Sports Scheduling
Organizer: Ryuhei Miyashiro

5A1: A $1+O(1/N)$ approximation algorithm for TTP(2)
Shinji Imahori

5A2: A fair home-away table in sports scheduling
Takahiro Tanaka and Ryuhei Miyashiro

5A3: The technique of finding an optimal batting order in baseball with base running results
Kiyoshi Osawa and Nobuyoshi Hirotsu

Technical Session 5B: Graphs and Networks

5B1: Routing and wavelength/sub-wavelength path assignment to maximizing accommodated traffic demands on optical networks
Yosuke Watanabe, Kiyo Ishii, Toshiki Sato, Atsuko Takefusa, Tomohiro Kudoh, Hidemoto Nakada, Maiko Shigeno and Akiko Yoshise

5B2: Development of a traffic demand model for large scale events
Kentaro Sashio, Kenta Shintoku, Keisuke Hata, Toshikatsu Mori and Yohei Fujigaki

5B3: Approximation algorithms for a sequencing problem with biased bipartite structure
Aleksandar Shurbevski, Hiroshi Nagamochi and Yoshiyuki Karuno

17:05–18:15

Technical Session 6A (organized session):
Computational Intelligence Methods and Applications for Tourism
Organizer: Takashi Hasuike

6A1: The calculation of average lengths of stay at tourist sites with web reservation data from lodging facilities
Yu Ichifuji, Takashi Hasuike and Noboru Sonehara

6A2: Tour routing and scheduling with neural network: Finding a preferred itinerary for a Japanese entertainment festival
Takeshi Uno and Saki Yamada

6A3: Sightseeing route scheduling considering synergy effects of satisfactions under time-dependent conditions
Takashi Hasuike, Hideki Katagiri, Hiroe Tsubaki and Hiroshi Tsuda

Technical Session 6B: Cutting and Packing

6B1: A heuristic algorithm for the container loading problem of Challenge Renault/ ESICUP
Hiroki Iwasawa, Yannan Hu, Hideki Hashimoto, Shinji Imahori and Mutsunori Yagiura

6B2: An exact algorithm with successively strengthened lower bounds for the rectilinear block packing problem
Ken Matsushita, Yannan Hu, Hideki Hashimoto, Shinji Imahori and Mutsunori Yagiura

6B3: The strip packing problem with soft rectangles: Experimental analysis of heuristic algorithms
Marco Milano, Shinji Imahori, Mihiro Sasaki and Mutsunori Yagiura

19:20–21:05

Banquet

Monday, July 6

8:45–

Registration

9:15–10:25

Technical Session 7A: Manufacturing

7A1: A hierarchical co-evolutionary genetic algorithm for open-shop scheduling problem with machining and assembly operations
Yoshitaka Tanimizu, Sosuke Uchino, Yuuki Sakai, Michisuke Sakamoto, Hideyuki Nonomiya, Koji Iwamura and Nobuhiro Sugimura

7A2: Interactive planning guidance system for manufacturing process by SVM and the particle filter considering production know-how
Shion Yasukawa and Akira Kitamura

7A3: A study on scheduling method for hierarchical and decentralized manufactuiring systems
Tatsuhiko Sakaguchi, Yuma Suzuki, Yota Naraki and Yoshiaki Shimizu

Technical Session 7B: Assignment

7B1: Assignment optimization rules under the limited-cycled model with multiple periods: When untrained worker is minor
Peiya Song, Xianda Kong, Hisashi Yamamoto, Sun Jing and Masayuki Matsui

7B2: A study on seats setting in the production seat booking system
Chihiro Hayashi, Hisashi Yamamoto, Masaaki Oba and Mitsuyoshi Horikawa

7B3: Trial development of automated bed assignment system
Takamori Ukai and Akiko Yoshise

10:35–11:35

Keynote Speech 3

K3: Transportation and crowd management planning for large scale events
David Ng

11:35–11:50

Closing Session