

# ISS 2023 Program at a Glance

Friday, June 23	
13:00–	Registration
13:30–13:40	Opening Session
13:40–14:20	Technical Session 1: Scheduling in Practice
14:20–14:40	Break
14:40–15:40	Keynote Speech 1 (Prof. Keisuke Fukui)
15:40–16:00	Coffee Break
16:20–17:15	Technical Session 2: Healthcare Scheduling
Saturday, June 24	
9:00–	Registration
9:40–10:55	Technical Session 3-1: Network Modeling Technical Session 3-2: Vehicle Routing and Transportation
10:55–11:15	Coffee Break
11:15–12:15	Keynote Speech 2 (Prof. Jatinder N D Gupta)
12:15–13:30	Lunch
13:30–14:45	Technical Session 4: Mathematical Modeling and Algorithm Organized Session 1: Sustainable City
14:45–15:00	Break
15:00–16:00	Keynote Speech 3 (Prof. Young-Long Kim)
16:00–16:20	Coffee Break
16:20–17:35	Technical Session 5-1: Production Scheduling Technical Session 5-2: Machine Learning
18:00–	Banquet
Sunday, June 25	
9:00–	Registration
9:40–10:30	Technical Session 6: Multi-Objective Scheduling
10:30–10:50	Coffee Break
10:50–11:40	Technical Session 7: Inventory Control and Management
11:40–11:45	Closing Session

## ISS2023 – International Symposium on Scheduling 2023

### Program

Friday, June 23

13:00- Registration

13:30-13:40 Opening Session (Room: 201)

13:40-14:20 TS1: Scheduling in Practice (Room: 201)

TS1-1	From Theory to Practice – Adoption of Cyber Physical Systems for Data Visualization and Smart Production Scheduling in an Engineer-to-Order Manufacturing Environment: A Case Study  Nirmala Liyanaarachchi, Kotomichi Matsuno, Jiahua Weng, Shingo Akasaka, Yoshitaka Tanimizu, Shozo Takata, Yudai Kobayashi and Shun Kudo
TS1-2	PSI-Planning Support System – in Toshiba semiconductor manufacturing –  Katsumi Narimatsu

14:40-15:40 Keynote Speech 1 (Room: 201)  
Microsimulation for Cancer Control in Japan  
Keisuke Fukui

15:40-16:00 Coffee Break

16:00-17:15 TS2: Healthcare Scheduling (Room: 201)

TS2-1	A Framework for Patient Symptoms based Nurse Scheduling Problem  Tenda Okimoto and Katsutoshi Hirayama
TS2-2	Hybrid Method of Nurse Scheduling Problem  Saya Haneda, Atsuo Suzuki and Shungo Koichi
TS2-3	Linear Program Randomized Rounding for Surgery Scheduling  Po-An Chen, Ya-Wen Cheng, Tze-Wei Liu and Tsung-Jui Wu

Saturday, June 24

9:00- Registration

9:40-10:55 TS3-1: Network Modeling (Room: 201)

TS3-1-1	Search Scheduling with Delayed Information of Target Missing Takamori Ukai, Yutaka Sakuma and Seiji Kataoka
TS3-1-2	Extended Application of a Network Representation for Scheduling Just-in-Time Jobs with Periodic Due Dates on Parallel Identical Machines Yoshiyuki Karuno and Kazusa Toyoda
TS3-1-3	Passengers' Multiple Choices on OD Paths in a Point-to-Point Airline Network Design Jinha Hibino, Shungo Koichi and Mihiro Sasaki

9:40-10:55 TS3-2: Vehicle Routing and Transportation (Room: 202)

TS3-2-1	Electric Vehicle Routing Problem for Effective Use of Electricity with Fluctuating Prices Chihiro Maeda, Kazuki Ueda, Hiroshi Morita, Yutaka Ohta and Akihiro Iwata
TS3-2-2	Comparison of Carpooling Models for Fairness in Detour Time under Equivalent Amount of Cooperation Allowance Yu Li, Kazumasa Ogawa, Hidenobu Hashikami, Ryotaro Kobayashi and Maiko Shigeno
TS3-2-3	A Case Study of Gas Replenishment Scheduling with Half-Exchange Strategy Hang Dong, Hiroki Iwata, Tatsuro Wakahara, Yosuke Takada, Yannan Hu, Hideki Hashimoto, Hirotaka Ono and Mutsunori Yagiura

10:55-11:15 Coffee Break

11:15-12:15 Keynote Speech 2 (Room: 201)  
Rigor and Relevance in Scheduling Research  
Jatinder N D Gupta

12:15-13:30 Lunch

13:30-14:45 TS4: Mathematical Modeling and Algorithm (Room: 201)

TS4-1	Distributed Optimization for Unit Commitment Problem Using Subgradient Method and Consensus Control  Naoto Debuchi, Tatsushi Nishi and Ziang Liu
TS4-2	An Optimal Switching Model of Production Line Considering Ergonomic Risk  Mingjuan Zhao, Jing Sun, Kohdai Yano and Koichi Nakade
TS4-3	Talent Scheduling Subject to Daily Capacity and Changeover Time  Zhaoqi Yang and Bertrand M.T. Lin

13:30-14:45 OS1: Sustainable City (Room: 202)

OS1-1	Optimizing Evidential Deep Learning Generators for Modeling Vehicular Traffic Patterns in Developing Countries  Akihito Nagahama and Katsuhiro Nishinari
OS1-2	Solar Energy Analysis Using the On-Demand Cumulative Control Method: Case Study of a Logistics Distribution Center  Akihiko Takada, Hiromasa Ijuin, Masayuki Matsui and Tetsuo Yamada
OS1-3	Effect of Supplier Selection of Electric Moped Scooters Sharing Services for Material-based Greenhouse Gas Emissions and Costs  Seigo Takahashi, Hiromasa Ijuin, Thomas Spelten, Semih Severengiz, Akihito Nagahama and Tetsuo Yamada

15:00-16:00 Keynote Speech 3 (Room: 201)  
Mapping the Pulse of the City: Using Big Data to Explore the Temporal and Spatial Dynamics of Human Mobility  
Young-Long Kim

16:00-16:20 Coffee Break

16:20-17:35 TS5-1: Production Scheduling (Room: 201)

TS5-1-1	Exploring Sustainable Considerations on the MTSSDRC Scheduling – (MTSSDRC: Multi-Task Simultaneous Supervision Dual-Resource Constrained)  Muhammad Akbar, Takashi Irohara and Sukoyo
TS5-1-2	Scheduling to Minimize the Total Weighted Completion Time with Step-Improving Jobs  T.C.E. Cheng, Svetlana A. Kravchenko and Bertrand M.T. Lin
TS5-1-3	RCPSF Formulation of the Optimization of Product Input Sequence and Workforce Scheduling for Multi-Stage, Multi-Item Cell Production Lines  Hidefumi Kurakado, Tatsushi Nishi and Ziang Liu

16:20-17:35 TS5-2: Machine Learning (Room: 202)

TS5-2-1	Optimization of the Transportation Mode Selection Problem with CO <sub>2</sub> Emission Constraints Using Machine Learning  Jinge Hu, Mikio Kubo, Masashi Hara, Yuto Miyachi and Puchit Sariddichainunta
TS5-2-2	Inpatient Projections and Bed Scheduling: Can Machine Learning Assist Optimization?  Yuka Matsubayashi, Mari Ito, Ryuta Takashima, Takamori Ukai, Masaki Koizumi, Akemi Yano, Shunsuke Matsushima and Sadaaki Inokuchi
TS5-2-3	Extraction of Cooking Scheduling Rules in a Restaurant  Risako Wada, Minami Ohara, Tetsuya Tsuboi, Keisuke Kimura, Narito Tanaka and Maiko Shigeno

18:00- Banquet

Sunday, June 25

9:00- Registration

9:40-10:30 TS6: Multi-Objective Scheduling (Room: 201)

TS6-1	A Proposal of Production Scheduling Method Considering Multiple Decision Criteria Using Aspiration Level Approach  Daisuke Kokuryo, Toshiya Kaihara, Nobutada Fujii, Daichi Itaya and Toyohiro Umeda
TS6-2	Multi-Objective N-step Hybrid Flow-shop Scheduling in the Constraint Transformation Form with Multi-Parameter Optimization  Jia Lin, Chengding Mao and Sumika Arima

10:30-10:50 Coffee Break

10:50-11:40 TS7: Inventory Control and Management (Room: 201)

TS7-1	Coordination Inventory Control and Vehicle Routing for Supply Chains of Perishable Products under Demand Uncertainty: A Multi-Phase Iterative Approach  Yulun Wu and Shunji Tanaka
TS7-2	An Adaptive Inventory Ordering Model Based on Linear Physical Programming  Jundai Koketsu, Aya Ishigaki and Shuho Yamada

11:40-11:45 Closing Session (Room: 201)