Program

Thursday, July 18

12:30-
Registration

13:30-14:00
Opening Session

14:00-15:00
Technical Session 1A: Manufacturing Systems and Scheduling 1
1A1: OEE Measurement by Taguchi Method with Simulation--------------------------1
   Dani Yuniawan, Effendi Mohamad and Teruaki Ito
1A2: Postponement of Stock Order Management Using Multi Decoupling Point on
   Bill-Of-Materials Structure---------------------------------------------------5
   Shinsuke Nomoto and Yasuyuki Nishioka

Technical Session 1B: Workforce Scheduling 1
1B1: Assignment of Human Operators to Machine Tools and Scheduling Considering
   Statistical Distribution of Processing Times--------------------------------------8
   Koji Iwamura, Hiroya Tagashira, Yoshitaka Tanimizu and Nobuhiro Sugimura
1B2: Scheduling Work Shifts to Fit Customer Buying Behavior: Increasing Time Waiting
   on Customers and Subsequently Retail Sales by Improving Work Efficiency       12
   Yusuke Oe, Mayumi Takeda, Masaki Kato, Natsuko Yano and Tsutomu Saito

15:00-16:00
Coffee Break

16:00-17:30
Technical Session 2A: Manufacturing Systems and Scheduling 2
2A1: A Study on Optimal Lot Assignments in Semiconductor Production Scheduling
   Problem ........................................................................................................16
   Takayuki Kita, Toshiya Kaihara, Nobutada Fujii and Ichiro Namioka
2A2: Dynamic Batch Job Shop Scheduling for Multi Items and Multi Due Dates with Total
   Actual Flow Time as Performance Criteria ......................................................22
   Nugroho Atma Hadi, T. M. A. Ari Samadhi, Yosi Agustina Hidayat and Suprayogi
2A3: A Dynamic Scheduling Using Rescheduling Strategy and Reduction Processing Time
   ......................................................................................................................32
   Toshihisa Fujiwara, Haruhiko Suwa and Hiroshi Morita
Technical Session 2B: Workforce Scheduling 2
2B1: Labor Scheduling Program for Supermarkets Focused on Monthly Productivity: Case Study on Checkout, Meat, and Delicatessen Departments .................................. 37
Takashi Ohyama
2B2: A Recursive Approach for Solving Nurse Rerostering Problems with a Sudden Absence for Several Consecutive Days .............................................................. 43
Manabu Kitada and Kazuko Morizawa
2B3: An Implementation of an Airline Pilot Scheduling System .................................. 49
Kento Hishida and Atsuo Suzuki

17:50-18:50
Keynote Speech
Workforce Scheduling: Models, Methods and Future Challenges .......................... 55
Janny M.Y. Leung

19:00-20:30
Reception

Friday, July 19

10:00-11:00
Technical Session 3A: Combinatorial Optimization 1
3A1: Pseudo-Polynomial Time Algorithms for Food Mixture Packing by Automatic Combination Weighers .......................................................... 59
Shinji Imahori and Yoshiyuki Karuno
3A2: Maximizing the Total Weight of Just-in-Time Jobs under Multi-Slot Conditions is NP-Hard .......................................................... 65
Eishi Chiba and Shinji Imahori

Technical Session 3B: SCM and Logistics 1
3B1: Possibilistic Programming Approach for Multi-Objective Inventory Problem in Two-Echelon Supply Chain System ........................................ 68
Dicky Fatrias and Yoshiaki Shimizu
3B2: Three Echelon Logistics Optimization for Operational Planning ...................... 74
Yoshiaki Shimizu and Tatsuhiko Sakaguchi

11:10-12:10
Technical Session 4A: Combinatorial Optimization 2
4A1: Efficient Construction Heuristic Algorithms for the Rectilinear Block Packing Problem .......................................................... 80
Y. Hu, H. Hashimoto, S. Imahori and M. Yagiura
4A2: Applications of Popular Matchings on Campus ........................................... 86
Yutaro Ikeda, Ayumi Igarashi and Maiko Shigeno

Technical Session 4B: SCM and Logistics 2
4B1: Column Generation Heuristics to Route Planning Problems for Automated Guided
Vehicles with Acceleration and Deceleration .................................................. 91
S. Matsushita, T. Nishi, S. Kataoka, T. Hisano and K. Matsumura
4B2: A Multi-Objective Genetic-Algorithm Including Dynamic Control of New
Chromosomes for Logistic Problem with Inventory Control .......................... 97
Masahiro Arakawa

12:10-13:00
Lunch

13:00-14:30
Technical Session 5A: Resource Allocation and Scheduling
5A1: Optimal Budget and Schedule for Projects with Upstream-Dependent Risks .......... 103
Tomoichi Sato
5A2: Optimal Placement of Bikes Using Queueing Networks ................................ 109
Shinya Mizuno, Megumi Ishigami, Yui Maruyama, Naokazu Yamaki, Yasuyuki
Muramatsu and Shogo Iwamoto
5A3: Worker Allocation Optimization of Two Special Workers with Random Variable
Target Processing Time in Limited-Cycle Multiple Periods ............................. 115
Xianda Kong, Hisashi Yamamoto, Jing Sun and Masayuki Matsui

Technical Session 5B: SCM and Logistics 3
5B1: Models and Procedure of Supply Chain Management Game Using Cloud Data
Exchange ........................................................................................................ 121
Yasuyuki Nishioka and Yuto Banba
5B2: High Resolution Supply Chain Management: Analyzing the Impact of Point of Sale
Data on Human Decision Making in a Virtual Supply Chain Scenario .............. 125
Volker Stich, Niklas Hering, Marcel Groten, Simone Runge and Jacob Andreae
5B3: Real-Time Capable Supply Chain Planning: Designing a Collaborative Supply Chain
Concept Based on Real-Time Data .............................................................. 131
Günter Schuh and Niklas Hering

14:30-15:00
Coffee Break
15:00-15:30
Invited Talk
Development of Dynamic Exchange Disassembly Order Algorithm for the Purpose of Fast Automatic Generation of Assembly Animation and 3D Work Instruction Sheets
Atsuko Enomoto, Daisuke Tsutsumi, Qiqige Bayasi, Kiichiro Iida and Toshiaki Shibata

15:30-16:30
Keynote Speech
Disassembly: A Comprehensive Overview ......................................................... 142
Surendra M. Gupta

19:00-20:30
Banquet (Hotel Nikko Tokyo)

Saturday, July 20

9:00-10:30
Technical Session 6A: SCM and Logistics 4
Yasutaka Koga and Satoshi Yoshida
6A2: A Game Theoretic Approach to Three-Echelon Supply Chains with Asymmetric Quality Information ................................................................. 172
Sisi Yin, Tatsushi Nishi and Guoqing Zhang
6A3: A Closed-Loop Supply Chain Model for Parts Reuse Considering Economic Efficiency ................................................................. 178
Yoshitaka Tanimizu, Yusuke Shimizu, Koji Iwamura and Nobuhiro Sugimura

Technical Session 6B: Green Logistics
6B1: Low-Carbon Supplier Selection Using Life Cycle Inventory Database in China and Japan................................................................. 184
Yuta Yoshizaki, Tetsuo Yamada, Norihiro Itsubo and Masato Inoue
6B2: An Optimal Design for Global Supply Chain Network Considering CO2 Emissions of Part Production ................................................................. 190
Tomoyuki Urata, Tetsuo Yamada, Norihiro Itsubo and Masato Inoue
6B3: Simulation Analysis of Supply Chain Network with Stochastic Lead Time .......... 196
Tetsu Kawasaki and Tetsuo Yamada
10:30-11:00
Coffee Break

11:00-12:00
Invited Tutorial
Cyclic Re-Entrant Flow Shop Scheduling Problem: Approach from Mathematical Programming
--------------------------------------------- 202
Rei Hino

12:00-12:10
Closing Session