Program

Tuesday, July 18

13:00–13:30
  Opening session

13:30–14:30
  Keynote speech
  K1:   Gate scheduling at airports
        Erwin Pesch

14:40–15:40
  Technical session 1A: Combinatorial optimization
  1A1:   Scheduling of corrugated paper production
        Kazuki Matsumoto, Hiroyoshi Miwa and Toshihide Ibaraki
  1A2:   An improved approximation algorithm for capacitated multicast routings in networks
        Ehab Morsy and Hiroshi Nagamochi

  Technical session 1B: Manufacturing systems
  1B1:   A study on integrated process planning and scheduling system for holonic manufacturing systems — Modification of process plans —
        Nobuhiro Sugimura, Rajesh Shrestha, Yoshitaka Tanimizu and Koji Iwamura
  1B2:   Life analysis of modules reuse for circulation production
        Yong Ji, Hirohisa Narita, Lian-yi Chen and Hideo Fujimoto

  Coffee break

16:10–17:40
  Technical session 2A: Application and practice 1
  2A1:   Sedan shift scheduling model
        Yihua Li
  2A2:   Subcontractors scheduling on residential buildings construction sites
        Thierry Benoist, Antoine Jeanjean, Guillaume Rochart, Hadrien Cambazard, Emilie Grellier and Narendra Jussien
  2A3:   Development of a shipbuilding scheduling system utilizing a weighted constraint satisfaction problem solver
        Takuya Nishimura, Yukihiro Nakama, Masayasu Matsuda and Yuki Makino

  Technical session 2B: Vehicle scheduling and communication
  2B1:   A DP-based heuristic algorithm for the discrete split delivery vehicle routing problem
        Yoshitaka Nakao and Hiroshi Nagamochi
  2B2:   Hierarchical approach with informational feedback for pickup and delivery problems
        Kazutoshi Sakakibara, Manabu Noishiki, Shinya Watanabe, Hisashi Tamaki and Ikuko Nishikawa
  2B3:   A novel design aid for scheduling policy toward seamless future-oriented land vehicle satellite communications
        Masato Takahashi

18:00–19:30
  Reception

Wednesday, July 19

9:00–10:00

Technical session 3A: Scheduling under uncertainty 1

3A1: Dynamic robust set of approximate nondominated solutions under scenarios
Hiroyuki Nagasawa, Masahide Kawasaki and Kazuko Morizawa

3A2: Online rescheduling in semiconductor manufacturing
Mingang Cheng, Masao Sugi, Jun Ota, Masashi Yamamoto, Hiroki Ito and Kazuyoshi Inoue

Technical session 3B: Virtual factory

3B1: A basic study on cost based lot sizing — Experiments with distributed virtual factory —
Kentaro Sashio, Susumu Fujii, Toshiya Kaihara and Shinya Inao

3B2: Manufacturing cell simulation environment synchronising real equipment and virtual factory model
Toshihiro Inukai, Hironori Hibino and Yoshiro Fukuda

10:10–11:10

Technical session 4A: Scheduling under uncertainty 2

4A1: Robust scheduling under uncertainty in processing time
Keisuke Murakami and Hiroshi Morita

4A2: A formal model for reactive scheduling problems
Satoshi Sugikawa, Haruhiko Suwa and Hisashi Tamaki

Technical session 4B: Genetic algorithm and Agent based-system

4B1: Development of new encoding method for the CPS
Al-Momani Abd Al-Rahman, Jaber E. Abu Qudeiri and Hidehiko Yamamoto

4B2: Work scheduling by use of worker model in consideration of learning by on-the-job training
Toshitake Tateno and Keiko Shimizu

Coffee break

11:40–12:40

Keynote speech

K2: Production scheduling to decrease transportation costs
Kathryn E. Stecke

Lunch

14:10–15:40

Technical session 5A: Application and practice 2

5A1: Supply chain management of the iron and steel industry
Mitsushige Shiota

5A2: Simultaneous optimization of storage allocation and routing problems for belt-conveyor transportation
Masatoshi Ago, Masami Konishi and Tatsushi Nishi

5A3: Genetic algorithm with reduction of search space using operational constraints and its application to scheduling system for steelmaking process
Satoshi Fujii, Shinji Tomiyama and Ryosuke Kimura

Technical session 5B: Packing problem

5B1: A guided local search algorithm based on a fast neighborhood search for the irregular strip packing problem
Shunji Umetani, Mutsunori Yagiura, Takashi Imamichi, Shinji Imahori, Koji Nonobe and Toshihide Ibaraki

5B2: An iterated local search algorithm based on nonlinear programming for the irregular strip packing problem
Takashi Imamichi, Mutsunori Yagiura and Hiroshi Nagamochi

5B3: Learning human skills instead of solving optimisation problems: A packing problem example
Blagovest Vladimirov, Hiromi Mochiyama and Hideo Fujimoto

Coffee break

16:10–17:40

Technical session 6A: Machine and shop scheduling 1

6A1: Scheduling in a two-machine flowshop for the minimization of the sum of absolute deviations from a common due date
Celso Satoshi Sakuraba and Debora P. Ronconi

6A2: A branch-and-bound algorithm based on Lagrangian relaxation for single-machine scheduling
Shunji Tanaka, Shuji Fujikuma and Mituhiko Araki

Technical session 6B: General model for scheduling and assignment problem

6B1: Decomposition of Petri nets for solving general scheduling problems
Tatsushi Nishi, Ryota Maeno and Masami Konishi

6B2: An iterated local search algorithm for the multi-resource generalized assignment problem with flexible assignment cost
Toshihide Ibaraki, Akihiro Ishikawa, Hiroshi Nagamochi, Koji Nonobe and Mutsunori Yagiura

6B3: A unified modeling and solution principle for fine scheduling
Kenji Muramatsu

18:00–19:30

Banquet

Thursday, July 20

9:00–10:00

Technical session 7A: Machine and shop scheduling 2

7A1: Real-time machine scheduling with variable durations
   Yihua Li

7A2: A heuristic scheduling algorithm for multi-stage job-shop process with crane handling
   Takashi Tanizaki, Takayoshi Tamura, Hideaki Sakai, Yutaka Takahashi and Taichi Imai

Technical session 7B: Supply chain

7B1: Evolutional optimization on material ordering and inventory control of supply chain through incentive scheme
   Kanit Prasetwattana, Yoshiaki Shimizu and Navee Chiadamrong

7B2: Proposal of collaboration in supply chain for implementing mass customization
   Shimpei Matsumoto, Nobuyuki Ueno, Koji Okuhara and Hiroaki Ishii

10:10–11:10

Technical session 8A: Production control

8A1: Multiagent based production control to prevent capacity loss during failures
   Rajesh Gautam and Kazuo Miyashita

8A2: Base stock policy in a join-type production line with advanced demand information
   Mikihiko Hiraiwa, Satoshi Tsubouchi and Koichi Nakade

Technical session 8B: Customer orientation

8B1: Production planning system for implementing mass customization by using particle swarm optimization
   Eri Domoto, Koji Okuhara, Nobuyuki Ueno and Hiroaki Ishii

8B2: Proposed method for recommending goods using a mathematical planning model
   Masahiko Ishino, Naokazu Yamaki, Teruhisa Ichikawa and Tadanori Mizuno

11:20–12:20

Keynote speech

K3: Cyclic machine scheduling: A general framework
   Peter Brucker and Thomas Kampmeyer

12:20–12:30

Closing session