

# MISTA 2017 Programme

**Multidisciplinary International Conference on Scheduling : Theory and Applications (MISTA 2017), 5th - 8th December 2017, Kuala Lumpur, Malaysia**

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## Tuesday 5th December 2017

### Session S1 (09:15 - 17:30)

**S1 - Workshops: Please fee free to attend whichever ones you want**

09:15	10:45	(951) Parameter Tuning of Metaheuristics Using the Taguchi Method, Dr Ender Özcan Room: MILLENIUM BALLROOM	Of Interest to Me?
09:15	10:45	(955) Getting published in high quality journals, Professor Graham Kendall Room: MILLENIUM IV AND V	Of Interest to Me?

### Coffee/Tea (10:45 - 11:15)

11:15	12:45	(952) Recent variants, solution approaches and applications of the Orienteering Problem, Professor Lau Hoong Chuin and Dr Aldy Gunawan Room: MILLENIUM BALLROOM	Of Interest to Me?
11:15	12:45	(956) Be more organised and efficient when writing papers, Professor Graham Kendall Room: MILLENIUM IV AND V	Of Interest to Me?

### Lunch (12:45 - 14:00)

14:00	15:30	(953) The future will be optimised: from research in optimisation to successful commercialisation at EventMAP, Dr Barry McCollum (EventMap) and Dr Paul McMullan (EventMap)	Of Interest to Me?
14:00	15:30	(957) Social Media for Researchers, Professor Graham Kendall Room: MILLENIUM IV AND V	Of Interest to Me?

### Coffee/Tea (15:30 - 16:00)

16:00	17:30	(954) Airline Crew & Fleet Scheduling, Professor Per Sjögren Room: MILLENIUM BALLROOM	Of Interest to Me?
16:00	17:30	(958) Panel Session: Meet the Editors, Professor Graham Kendall Room: MILLENIUM IV AND V	Of Interest to Me?

### Conference Reception (Havana)

More details will be provided at the conference

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## **Wednesday 6th December 2017**

**08:50 Conference Opening (Graham Kendall)**

**Plenary (09:00 - 10:00): Millenium Ballroom (Chair: Graham Kendall)**

**Jacek Blazewicz**

Multi-agent based approach for the origins of life hypothesis

**Coffee/Tea (10:00 - 10:30)**

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## Session S2 (10:30 - 12:35)

### S2-A : Timetabling I (Millenium III) (Session Chair: Presenter of Paper 054)

10:30	10:55	(013) Mathematical model for a high quality examination timetabling problem: case study of a university in Malaysia, Nurul Farahin Jamaluddin, Nur Aidya Hanum Aizam and Nurul Liyana Abdul Aziz	Of Interest to Me?
10:55	11:20	(035) Modeling a Practical University Course Timetabling Problem with Reward and Penalty Objective Function: Case Study FTSM-UKM, Xiao Fei Yang, Masri Ayob and Mohd Zakree Ahmad Nazri	Of Interest to Me?
11:20	11:45	(014) Variation of Demands for a New Improvised University Course Timetabling Problem Mathematical Model, Nurul Liyana Abdul Aziz, Nur Aidya Hanum Aizam and Nurul Farahin Jamaluddin	Of Interest to Me?
11:45	12:10	(050) Balanced clustering based decomposition applied to Master thesis defense timetabling problem, Huymh Thanh Trung, Pham Quang Dung, Emir Demirovic, Maxime Clement and Katsumi Inoue	Of Interest to Me?
12:10	12:35	(054) Hyper-heuristics using Reinforcement Learning for the Examination Timetabling Problem, Kehan Han and Paul McMullan	Of Interest to Me?

### S2-B : Scheduling I (Millenium IV and V) (Session Chair: Presenter of Paper 009)

10:30	10:55	(011) Exploration of Logic-Based Benders Decomposition Approach for Mapping Applications on Heterogeneous Multi-Core Platforms, Andreas Emeretlis, George Theodoridis, Panayiotis Alefragis and Nikolaos Voros	Of Interest to Me?
10:55	11:20	(008) Customer Order Scheduling on Unrelated Parallel Machines to Minimize Total Weighted Completion Time, Haidong Li, Xiaoyun Xu and Yaping Zhao	Of Interest to Me?
11:20	11:45	(010) Symmetry breaking in a special case of the RCPSP/max, Steven Edwards, Davaatseren Baatar, Simon Bowly and Kate Smith-Miles	Of Interest to Me?
11:45	12:10	(009) Optimal solutions for minimum-cost sequential system testing, Roel Leus, Salim Rostami and Stefan Creemers	Of Interest to Me?
12:10	12:35	(999) FREE SLOT, This room is available for meetings, discussions etc., but please book with Debbie just to make sure that it is not double booked	Of Interest to Me?

## Lunch (12:35 - 14:00)

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**Plenary (14:00 - 15:00): Millenium Ballroom (Chair: Aldy Gunawan)  
Professor Lau Hoong Chuin**

Combining Machine Learning and Optimization for Real-World Scheduling Applications

**Coffee/Tea (15:00 - 15:30)**

**Session S3 (15:30 - 16:45)**

**S3-A : Heuristics (Millenium Ballroom) (Chair: Presenter of Paper 058)**

15:30	15:55	(036) Hybrid Heuristics for Multiple Orders per Job Scheduling Problems with Parallel Machines and a Common Due Date, Jens Rocholl and Lars Moench	Of Interest to Me?
15:55	16:20	(018) Robotic Cell Scheduling Considering Energy Consumption of Robot Moves, Hakan Gultekin, Sinan Gurel and Vahid Eghbal Akhlaghi	Of Interest to Me?
16:20	16:45	(058) Selection Hyper-heuristics for Solving the Wind Farm Layout Optimisation Problem, Ahmed Kheiri, Alaa Daffalla, Yossra Noureldien and Ender Özcan	Of Interest to Me?

**S3-B : Personnel/Staff Rostering (Millenium III) (Chair: Presenter of Paper 040)**

15:30	15:55	(028) A Robust Crew Pairing Model for Airline Operations using Crew Swaps and Slack Times, Ian Frederic A. Ilagan and Charlle L. Sy	Of Interest to Me?
15:55	16:20	(053) Home Health Care Delivery Problem, Aldy Gunawan, Hoong Chuin Lau and Kun Lu	Of Interest to Me?
16:20	16:45	(040) Railway Rolling Stock Maintenance - Crew Scheduling at Maintenance Depots, Lukas Bach and Daniel Palhazi Cuervo	Of Interest to Me?

**Conference Banquet**

More details will be provided at the conference

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## **Thursday 7th December 2017**

**Plenary (09:00 - 10:00): Millenium Ballroom (Chair: Seow Hsin Vonn)**

**Dr Ender Ozcan**

A Review of Selection Hyper-heuristics: Recent Advances

**Coffee/Tea (10:00 - 10:30)**

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## Session S4 (10:30 - 12:35)

### S4-A : Real World Applications (Millenium Ballroom) (Chair: Presenter of Paper 038)

10:30	10:55	(043) Towards improving tenders for Higher Education timetabling software: Uncovering the selection criteria of HEIs when choosing timetabling applications, using ERP as a reference, Rudy Oude Vrielink, Erik Jansen,	Of Interest to Me?
10:55	11:20	(023) Scheduling container transportation through conflict-free trajectories in a warehouse layout: A local search approach, Emmanouil Thanos, Tony Wauters and Greet Vanden Berghe	Of Interest to Me?
11:20	11:45	(046) Modeling and Solving the Steelmaking and Casting Planning and Scheduling Problem, Davide Armellini, Paolo Borzone, Sara Ceschia, Luca Di Gaspero and Andrea Schaerf	Of Interest to Me?
11:45	12:10	(015) Multi-commodity flow and station logistics resolution for train unit scheduling, Raymond S K Kwan, Zhiyuan Lin, Pedro J Copado-Mendez and Li Lei	Of Interest to Me?
12:10	12:35	(038) Scheduling of maintenance tasks of a large-scale tram network, Alexander Kiefer, Michael Schilde and Karl E. Doerner	Of Interest to Me?

### S4-B : Transportation and Routing (Millenium III) (Chair: Presenter of Paper 021)

10:30	10:55	(037) The "Orchestrator" approach to multimodal continental trip planning., Lukas Bach, Dag Kjenstad and Carlo Mannino	Of Interest to Me?
10:55	11:20	(056) Responsive Single Bus Corridor Scheduling Based on Machine Learning and Optimisation, Ruibin Bai, Ning Xue, Xia Li and Tianxiang Cui	Of Interest to Me?
11:20	11:45	(051) A Selective-Discrete Particle Swarm Optimization Algorithm for Solving a Class of Orienteering Problems, Aldy Gunawan, Vincent. F. Yu, A. A. N. Perwira Redi, Parida Jewpanya and Hoong Chuin Lau	Of Interest to Me?
11:45	12:10	(012) A Weight Assignment Approach for Solving Multicriteria Global Path Planning of Unmanned Combat Vehicles, Veekeong Saw, Amirah Rahman and Wen Eng Ong	Of Interest to Me?
12:10	12:35	(021) Optimal Interdiction of Vehicle Routing on a Dynamic Network, Maximilian Moll, Stefan Pickl, Manon Raap and Martin Zsifkovits	Of Interest to Me?

## Lunch (12:35 - 14:00)

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### Session S5 (14:00 - 15:40)

#### S5-A : Scheduling II (Millenium Ballroom) (Chair: Presenter of Paper 030)

14:00	14:25	(029) An Integrated Optimization of Dynamic Product Family Configuration and Supply Chain Configuration, Takuya Tsuboi, Tatsushi Nishi, Yoshitaka Tanimizu and Toshiya Kaihara	Of Interest to Me?
14:25	14:50	(044) Scheduling Models for Multi-Agent Path Finding, Roman Barták, Jiří Švancara and Marek Vlč	Of Interest to Me?
14:50	15:15	(057) Benders Decomposition in SMT for Rescheduling of Hierarchical Workflows, Marek Vlč, Roman Barták and Emmanuel Hebrard	Of Interest to Me?
15:15	15:40	(030) Integer programming for home care scheduling with flexible task frequency and controllable processing times, Pieter Smet, Federico Mosquera, Túlio A. M. Toffolo and Greet Vanden Berghe	Of Interest to Me?

#### S5-B : Evolutionary Algorithms (Millenium III) (Chair: Presenter of Paper 047)

14:00	14:25	(055) The Application of Nondominated Sorting Genetic Algorithm (NSGA-III) for Scientific-workflow Scheduling on Cloud, Peerasak Wangsom, Kittichai Lavangnananda and Pascal Bouvry	Of Interest to Me?
14:25	14:50	(027) Improving Ant Colony Optimization algorithm with Levy Flight, Yahui Liu and Buyang Cao	Of Interest to Me?
14:50	15:15	(022) Evolving Adaptive Evolutionary Algorithms, Ayman Srour and Patrick De Causmaecker	Of Interest to Me?
15:15	15:40	(047) Solving Tourist Trip Design Problems Using a Virus Optimization Algorithm, Yun-Chia Liang, Aldy Gunawan, Hui-Chih Chen and Josue Rodolfo Cuevas Juarez	Of Interest to Me?

#### S5-C : Scheduling III (Millenium IV and V) (Chair: Presenter of Paper 042)

14:00	14:25	(031) A Batch-oblivious Approach For Scheduling Complex Job-Shops with Batching Machines: From Non-delay to Active Scheduling, Karim Tamssaouet, Stéphane Dauzère-Pérès, Claude Yugma and Jacques Pinaton	Of Interest to Me?
14:25	14:50	(033) Optimizing Production Schedule with Energy Consumption and Demand Charges in Parallel Machine Setting, Farnaz Ghazi Nezami, Mojtaba Heydar and Regina Berretta	Of Interest to Me?
14:50	15:15	(039) A parametric priority rule for just-in-time scheduling problem with sequence-dependent setup times, Helio Yochihiro Fuchigami	Of Interest to Me?
15:15	15:40	(042) Efficient algorithms for non-preemptive mixed-criticality match-up scheduling problem, Antonin Novak, Premysl Sucha and Zdenek Hanzalek	Of Interest to Me?

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**Coffee/Tea (15:40 - 16:00)**

**Session S6 (16:00 - 17:15)**

**S6-A : Job Shop Scheduling (Millenium Ballroom) (Chair: Presenter of Paper 016)**

16:00	16:25	(041) A constraint programming approach for the energy-efficient job shop scheduling problem, Angelo Oddi, Riccardo Rasconi and Miguel A. Gonzalez	Of Interest to Me?
16:25	16:50	(024) Fixed jobs scheduling on a single machine with renewable resources, Boukhalfa Zahout, Ameer Soukhal and Patrick Martineau	Of Interest to Me?
16:50	17:15	(016) On the exact solution of a large class of parallel machine scheduling problems, Teobaldo Bulhoes, Ruslan Sadykov, Eduardo Uchoa and Anand Subramanian	Of Interest to Me?

**S6-B : Scheduling III (Millenium III) (Chair: Presenter of Paper 032)**

16:00	16:25	(049) Integrated Scheduling of Machines, Vehicles, and Storage Tasks in Flexible Manufacturing Systems, Seyed Mahdi Homayouni and Dalila B. M. M. Fontes	Of Interest to Me?
16:25	16:50	(034) Evolutionary Bilevel Approach for Integrated Long-Term Staffing and Scheduling, Julian Schulte, Maik Günther and Volker Nissen	Of Interest to Me?
16:50	17:15	(032) Three upper bounds for the speed meeting problem, Benoit Cantais, Antoine Jouglet and David Savourey	Of Interest to Me?

**Dinner: On your Own**

## Friday 8 December

**Social Day (More details at the conference)**