Schedule

Day 1:	Friday, 11 November
09:30-10:00	Registration (Tan Kai Yong Conference Hall)
10:00-10:10	Opening (Tan Kai Yong Conference Hall)
10:10-11:10	**Keynote Speech I** (Tan Kai Yong Conference Hall) Industry Case: Operation Innovation in Semiconductor Fab with AI and Digital Twin *Professor Young Jae Jang, Korea Advanced Institute of Science and Technology (KAIST)*
11:10-12:10	**Keynote Speech II** (Tan Kai Yong Conference Hall) Infrastructure for Assessing the Performance of Planning Approaches for Semiconductor Supply Chains *Professor Lars Mönch, University of Hagen*
12:10-13:40	**Lunch & Break**
13:40-14:30	**Keynote Speech III** (Tan Kai Yong Conference Hall) AI Empowering ERA of Human-Robot Integration: ISRAEL smart Robotics Trends *Professor Yosi Lahad, Israel Intelligent Robotics Center (IIRC) Chair, Cooperation Committee* Malaysia Artificial Intelligence Roadmap *Professor Pok Wei Fong* *Deputy Dean of Faculty of Accountancy and Management, Universiti Tunku Abdul Rahman*
14:30-15:00	**Tea Break**
15:00-15:50	**Keynote Speech IV** (Tan Kai Yong Conference Hall) GPU Parallel Computing for Smart Manufacturing and Digital Transformation *Dr. Andrew Liu, NVIDIA*
15:50-16:40	**Keynote Speech V** (Tan Kai Yong Conference Hall) Modeling and solving complex job-shop scheduling problems *Professor Stéphane Dauzère-Pérès,* *Center of Microelectronics in Provence (CMP) of Mines Saint-Etienne*
Day 2:	**Saturday, 12 November**

	(Main Building)

13:00-14:30	Technical Sessions 1	
	Session I-1 Artificial Intelligence for Industrial Applications (Main Building Room 110)	**Session I-2** Data-Driven Optimization and Analytics (Main Building Room 111)
14:30-14:50	Tea Break	
14:50-16:20	Technical Sessions 2	
	Session II-1 Optimization for Smart Manufacturing (Main Building Room 110)	**Session II-2** Modeling and Decision Analysis (Main Building Room 111)
14:30-14:50	Tea Break	
16:40-17:10	Closing Ceremony	
17:30-20:00	**Farewell Banquet** (Ying Chun Ge Chinese Restaurant 盈春閣)	

Day 3:	**Sunday, 13 November**
09:00-12:00	**Industry & Local Cultural Tour**

I-1 Topic: Artificial Intelligence for Industrial Applications

Location: Main Building Room 110   **Time: 13:00 – 14:30**

Session Chair: Professor Tzu-Yen Hong

ID	Title	Author
5130	The Graph Neural Network–Based Dynamic Routing Algorithm for Overhead Hoist Transport Vehicles in Semiconductor Fabrication Plants	Jaeho Lee & Young Jae Jang
5987	Application of Machine Learning to Maritime Safety	Wu-Hsun Chung, Yi-Yang Hung & Chien-Chung Yuan
5028	Maintenance Time Reduction for Semiconductor Manufacturing Tools	Sang-Hyun Cho, Jeongsun Ahn, Duyeon Kim, Dain Ham, Hongyeon Kim & Hyun-Jung Kim
8445	UNISON Framework for Sustainability and an Illustration of PCB Company	Ju-Chien Chien, Yu-Quan Tseng, and Chen-Fu Chien
8750	Industrial Product Demonstration in Metaverse using XR Technologies	Dawi Karomati Baroroh, Jie-Ke Pan, Shau-Min Chen & Chih-Hsing Chu

I-2 Topic: Data-Driven Optimization and Analytics

Location: Main Building Room 111   **Time: 13:00 – 14:30**

Session Chair: Professor You-Jin Park

ID	Title	Author
6198	A Novel Grid-based Algorithm for Decoder Routing in Semiconductor Design	Hongyeon Kim, Jeongsun Ahn, Chaeyoung Kim & Hyun-Jung Kim
7084	A Conditional Recurrent Autoencoder for Anomaly Detection in Overhead Hoist Transport Systems According to their Operational State	Jiyoon Myung & Young Jae Jang
9980	Applying Mathematical Programming for Master Production Scheduling in Multi-site Semiconductor Manufacturing- A Case Study of Company V	Chi-Cheng Lin, Yung-Chia Chang, Jonathan Chang, En-Cheng Lin, Yu-Wen Wang, Hsuan Yen & Chi-Wei Hu
5070	Material Quality System in Solar Cell Manufacturer	Chia-Yen Lee, Yung-Lun Lin, Shu-Hung Lin & Taho Yang
9989	A Novel Hybrid Under-Sampling for Semiconductor Wafer Defect Bin Classification	You-Jin Park, Rong Pan, Douglas C. Montgomery, Kyunghee Joo

II-1 Topic: Optimization for Smart Manufacturing

Location: Main Building Room 110 **Time: 14:50 – 16:20**

Session Chair: Professor Che-Wei Chou

ID	Title	Author
3831	A Comprehensive Survey of Metaheuristic Algorithms Applying in Mechanical Design Optimization Problems	Hsu-Hsing Chen & Feng-Cheng Yang
5116	Storage Assignment Problem for Automated Warehouse in Manufacturing Systems	Sungwook Jang & Young Jae Jang
6224	Multi-objective based Simplified Swarm Optimization for Container Loading Optimization with Practical Constraints	Truong Hoang Linh & Chen-Fu Chien
9359	Education System for Automated Material Handling System Design with Digital Twin and LEGO Robotics	Young Jae Jang, Ye Bin Kim, Jeong Jun Lee & Chae Won Lim
6009	An Artificial Neural Network Meta-model for Resource Allocation of Vehicle Fleets in the Automated Material Handling System	Che-Wei Chou, Wei-Cheng Chiu, Yu-Zhong Kang, Yao-Ting Chiang & Chia-Yu Lin

II-2 Topic: Modeling and Decision Analysis

Location: Main Building Room 111 **Time: 14:50 – 16:20**

Session Chair: Professor Chia-Yu Hsu

ID	Title	Author
1540	Discrete Lot-Sizing Problem of Single Machine based on Reinforcement Learning Approach	Tae Jong Park & Young Jae Jang
0141	Strategic Dynamic Pricing Optimization by Thompson Sampling and Stochastic Programming	Tran Hong Van Nguyen, Chen-Fu Chien, Hsuan-An Kuo & Kang-Ting Ma
2571	Exploring Compatibility of Information Services	Cheng-Han Wu, Pandu Dwi Luhur Pambudi & Yu-Wei Huang
9904	Incumbent sales strategy in the presence of strategic consumers	Cheng-Han Wu, Netnapha Chamnisampan & Yan-Tong Liao
7759	Extraction of Classification/Regression-qualified and Explainable Features for Deep Classifier/Regressor Modeling	Yun Chu & Jakey Blue