

# **A1: Scheduling and Sequencing I**

**ROOM: Hibiscus Rose (B2) TIME: Dec. 8 1330-1500**

**CHAIR: Chen-Yang Cheng**

## **A1-1 (PAPER ID: 229)**

**Job sequencing and optimal scheduling for tri-temperature lot sizes in  
semiconductor testing**

Yoshiki B. Kurata and Herwina Richelle C. Andres

## **A1-2 (PAPER ID: 351)**

**Production scheduling problem of an automobile components primer painting  
factory**

Onyu Yu, Jeongin Koo, Byung-In Kim and Sungdo Lee

## **A1-3 (PAPER ID: 240)**

**A multi-objective optimization approach for solving university course  
timetabling problem - a case study of international university, VNU in HCMC,  
Vietnam**

Nguyen Huu Tri, Ho Thanh Phong and Ho Doan Quoc

## **A1-4 (PAPER ID: 280)**

**Optimization resource-constrained project scheduling problem with stochastic  
activity durations**

Huy Le Huu, Phong Ho Thanh and Quoc Ho Doan

## **A2: Ergonomics and Human Factors II**

**ROOM: Hibiscus Rose (B2) TIME: Dec. 8 1520-1650**

**CHAIR: Hwa Jen Yap**

### **A2-1 (PAPER ID: 447)**

**The development of a checklist for evaluating elderly user interface ability**

Sui-Hua Ho and Chiuhsiang Joe Lin

### **A2-2 (PAPER ID: 366)**

**Interactive kinematics simulator for the 5 DOF virtual industrial robot**

Hwa Jen Yap, Shirley Tho, Siow Wee Chang and Zahari Taha

### **A2-3 (PAPER ID: 404)**

**The study of human resource linkage with accounting valuation-inspiration of  
IFRS**

Yi-Chun Lin and Pei-How Huang

### **A2-4 (PAPER ID: 205)**

**Developing a moveable augmented reality system using projector for  
supporting guide in Museum**

Kazuto Omori and Takahiro Sugiyama

### **A2-5 (PAPER ID: 488)**

**Classification of the type of finger using a touch interfaces**

Shuichi Kumazawa, Hasegawa Tatsuhito and Hidetaka Nambo

### **A2-6 (PAPER ID: 252)**

**Ergonomics application to work design on seafood processing line**

Chung Van Nguyen

## **A3: Special Session-Marketing Analysis I**

**ROOM: Hibiscus Rose (B2) TIME: Dec. 9 0900-1030**

**CHAIR: Kazuhiro Takeyasu**

### **A3-1 (PAPER ID: 44)**

**Correspondence analysis for the questionnaire investigation on rare sugars**

Yuki Higuchi, Hiromasa Takeyasu and Kazuhiro Takeyasu

### **A3-2 (PAPER ID: 48)**

**An Analysis for the questionnaire investigation about the high school teachers  
workload**

Kazuhiro Takeyasu, Yasuo Ishii, Tatsuya Oyanagi and Daisuke Takeyasu

### **A3-3 (PAPER ID: 53)**

**Questionnaire investigation for the support of high school teachers  
by the school social worker**

Daisuke Takeyasu, Tatsuya Oyanagi and Kazuhiro Takeyasu

### **A3-4 (PAPER ID: 54)**

**A hybrid method to improve forecasting accuracy utilizing genetic  
algorithm –an application to the data of operating equipment and supplies**

Asami Shitara, Daisuke Takeyasu and Kazuhiro Takeyasu

### **A3-5 (PAPER ID: 491)**

**Efficient design of UAVs system for utilization at tourism industry**

Byung Duk Song, Young Dae Ko and Hark Hwang

### **A3-6 (PAPER ID: 170)**

**Child education and care in Japan: past, present, and future**

Itsuko Fukui

## **A4: Special Session-Marketing Analysis II**

**ROOM: Hibiscus Rose (B2) TIME: Dec. 9 1050-1205**

**CHAIR: Kazuhiro Takeyasu**

### **A4-1 (PAPER ID: 58)**

**Forecasting the daily shipping data of sanitary materials**

Kazuhiro Takeyasu, Komei Suzuki and Hirotake Yamashita

### **A4-2 (PAPER ID: 73)**

**The analysis of hypothesis testing on rare sugars**

Hiromasa Takeyasu, Daisuke Takeyasu and Kazuhiro Takeyasu

### **A4-3 (PAPER ID:168)**

**Measurement of the degree of brand purchase intention by using reaction time**

Masao Ueda

### **A4-4 (PAPER ID: 519)**

**Proposal of item-sets in view of simultaneous purchase in convenience store**

**using association analysis**

Wei Zang, Mio Ishiwata and Satoshi Kumagai

### **A4-5 (PAPER ID: 521)**

**Hospital outpatient service optimization with revenue management approach**

Hai Shen and Kin Keung Lai

## **A5: Scheduling and Sequencing II**

**ROOM: Hibiscus Rose (B2) TIME: Dec. 9 1330-1500**

**CHAIR: Teng-Sheng Su**

### **A5-1 (PAPER ID: 318)**

**Bus reallocation problem in networks with overlapping routes**

Nguyen T. Phong and Ho T. Phong

### **A5-2 (PAPER ID: 390)**

**Consultation sequencing of a hospital with multiple service points using  
genetic programming**

Katsumi Morikawa , Katsuhiko Takahashi and Keisuke Nagasawa

### **A5-3 (PAPER ID: 408)**

**The scheduling planning with discrete event simulation based on a fuzzy set  
theory in a semiconductor fab construction engineering**

Teng-Sheng Su and Luh-Maan Chang

### **A5-4 (PAPER ID: 485)**

**The application of job-shop scheduling in order picking problem a case study  
in customer distribution warehouse of DKSH**

Tran Quoc Dat and Ho Thanh Phong

### **A5-5 (PAPER ID: 489)**

**General-purpose SPWA with the class-type skill by genetic algorithm**

Daiki Takano, Kenichi Ida and Mitsuo Gen

## **A6: Uncertainty Theory**

**ROOM: Hibiscus Rose (B2) TIME: Dec. 9 1520-1650**

**CHAIR: Charlle L. Sy**

### **A6-1 (PAPER ID: 50)**

**Robust decision support system for a closed-loop repair and replenishment  
network**

Charlle L. Sy

### **A6-2 (PAPER ID: 458)**

**Risk evaluation approach on student projects using failure mode and effects  
analysis based on fuzzy rule-based system and intelligent agents**

Issarapong Khuankrue, Fumihiko Kumeno, Yutaro Ohashi and Yasuhiro Tsujimura

### **A6-3 (PAPER ID: 520)**

**Understanding responsible consumption and production under uncertainty**

Kuo-Jui Wu, Liang Wang and Ming-Lang Tseng

### **A6-4 (PAPER ID: 125)**

**Statistical mechanics model for M/M/s queueing system with balking**

Kosuke Tamura, Ikuo Arizono and Yasuhiko Takemoto

### **A6-5 (PAPER ID: 196)**

**Construction of P-control chart using image processing technique**

Anirut Pipatprapa, Hsiang-Hsi Huang and Ching-Hsu Huang

# **A7: Special Session-Service System**

## **Engineering I**

**ROOM: Hibiscus Rose (B2) TIME: Dec. 10 0800-0930**

**CHAIR: Desheng Wu**

### **A7-1 (PAPER ID: 503)**

**Circulation safety management system for the limited shelf life commodity**

Xin Tian, Shou-yang Wang, Shi-hui Tian, Zhao-song Wu and Chan-juan Zhu

### **A7-2 (PAPER ID: 501)**

**A big data analysis: forum sentiment, price volatility and herding behavior**

Desheng Wu

### **A7-3 (PAPER ID: 500)**

**A GA-based load balancing strategy for virtual machines in the cloud  
environment**

He Luo, Yanqiu Niu, Zhengzheng Liang and Xiang Fang

### **A7-4 (PAPER ID: 499)**

**Modeling location diffusion, resource allocation and rebalance in car sharing  
industry**

Xiaojia Wang and Bujian Jiang

# **A8: Special Session-Service System Engineering II**

**ROOM: Hibiscus Rose (B2) TIME: Dec. 10 1050-1205**

**CHAIR: Desheng Wu**

## **A8-1 (PAPER ID: 498)**

**Economic dispatch of microgrid with the access of electric vehicles**

Xinhui Lu and Kaile Zhou

## **A8-2 (PAPER ID: 497)**

**A time series QoS prediction method for time-aware cloud service  
recommendation**

Shuai Ding and Ye-Qing Li

## **A8-3 (PAPER ID: 496)**

**Patterns in research university technology transfer**

Zhanglin Peng, Keyu Zhu, Qiang Zhang and Li Zheng

## **A8-4 (PAPER ID: 495)**

**Mining social media websites to recommend groups of interest**

Jianshan Sun, Dong Xu, Yuanchun Jiang and Yezheng Liu



## **B1: EAWIE-Supply Chain Management**

**ROOM: Lily Jasmine(B2) TIME: Dec. 8 1330-1500**

**CHAIR: Chang Seong Ko**

### **B1-1 (PAPER ID: 154)**

**Information sharing on the bullwhip effect in a four-level supply chain**

Wu-Lin Chen, Wan-Qiao Lai and Chin-Yin Huang

### **B1-2 (PAPER ID: 162)**

**Game-theoretic compromised network design in delivery services**

Young Jun Ko, Ki Ho Chung, Friska Natalia Ferdinad and Chang Seong Ko

### **B1-3 (PAPER ID: 218)**

**Apply fuzzy weighted goal programming in sustainable sugar supply chain: a case study of Thanh Thanh Cong Company Vietnam**

Quan Ha Duong, Hoang Huy Nguyen and Vinh Truc Do

### **B1-4 (PAPER ID: 319)**

**Supply chain for Vietnamese agricultural products: a case study of Japanese sweet potatoes in Binh Tan district-Vinh Long province**

Chau Minh Nguyen Ngo and Phong Thanh Ho

### **B1-5 (PAPER ID: 403)**

**Model for job order allocation to suppliers considering transportation and manufacturing costs**

T.M.A. Ari Samadhi and Rahindradi Puntho

### **B1-6 (PAPER ID: 486)**

**Design supply chain for agricultural products of Vietnam a case study: supply chain design for tangerine in DONG THAP PROVINCE**

Ho Thanh Phong and Mai Ngoc Nhu

## **B2: Operations Research and Management**

### **Science I**

**ROOM: Lily Jasmine(B2) TIME: Dec. 8 1520-1650**

**CHAIR: Trung Luong Huynh**

#### **B2-1 (PAPER ID: 244)**

**Evaluation of multi-objective networks based on topological analysis**

Nastumi Takahashi, Tomoaki Akibaand, Koji Shingyochi,

Hisashi Yamamoto and Xiao Xiao

#### **B2-2 (PAPER ID: 263)**

**Car rental optimization under effect of upgrade policy**

Tran Duc Huan and Phan Nguyen Ky Phuc

#### **B2-3 (PAPER ID: 232)**

**A statistical analysis on the number of industrial engineering students of  
Bulacan State University who will take the IE certification examination**

Jasper Kevin C. Dionisio and Denise Mae M. Unsay

#### **B2-4 (PAPER ID: 457)**

**Network DEA: a modified non-radial approach**

Victor John M. Cantor and Kim Leng Poh

#### **B2-5 (PAPER ID: 438)**

**Option contract with put and call option: a case of one buyer and two  
suppliers**

Huynh Trung Luong and Voraseth Jittsomboon

## **B3: Product Design and Development**

**ROOM: Lily Jasmine(B2) TIME: Dec. 9 0900-1030**

**CHAIR: Ying-Yin Rudy Huang**

### **B3-1 (PAPER ID: 302)**

**Design for supply chain with a closed-loop design  
evaluation model using a PSO method**

Yuan-Jye Tseng, Yi-Shiuan Chen and Wan-Tzu Wu

### **B3-2 (PAPER ID: 337)**

**Fully automatic self-administrative vision screener**

Ying-Yin Rudy Huang and Marino Menozzi

### **B3-3 (PAPER ID: 344)**

**Designing game online physical voucher using house  
of quality (HOQ) and Kano model**

Rosika Kusharfinna, Muhammad Akbar<sup>1</sup> and Dradjad Irianto<sup>2</sup>

### **B3-4 (PAPER ID: 357)**

**Topology optimization and analysis of interchangeable compliant limb  
attachment for use in a modular lower extremity exoskeleton**

Zahari Taha, Yashim Wong, Anwar P.P. Majeed, Abdelhakim Deboucha,  
Norhafizan Ahmad and Raja Ariffin Raja Ghazilla

### **B3-5 (PAPER ID: 59)**

**Optimal quality design when a product is customized by a customer using  
third-party firm's items under the uncertainty of customer's preference**

Hisashi Kurata and Yumi Meuthia

### **B3-6 (PAPER ID: 303)**

**Effective quick response in a supply chain**

Yoshimi Tsukagoshi, Aya Ishigaki and Hiroaki Sandoh

# **B4: Operations Research and Management Science**

## **II**

**ROOM: Lily Jasmine (B2) TIME: Dec. 9 1050-1205**

**CHAIR: Takeshi Koide**

**B4-1 (PAPER ID: 41)**

**A classroom assignment problem in university term examinations**

Takeshi Koide and Yumiko Naba

**B4-2 (PAPER ID: 43)**

**Intelligent storage location assignment in consideration of correlation between  
items**

Ya-Hua Huang and Cheng-Hung Wu

**B4-3 (PAPER ID: 61)**

**Optimal allocation of cashiers and pharmacists in large hospitals: a point-wise,  
fluid-based dynamic queueing network approach**

Chung-Cheng Lu, Hui-Ju Chen, Kuo-Ching Ying and Tsung-Chi Yu

**B4-4 (PAPER ID: 79)**

**Sharing information in a dual-supplier network from a game theoretic  
perspective**

Yi Tao, Loo Hay Lee and Ek Peng Chew

**B4-5 (PAPER ID: 182)**

**A proposal of a differential equation model for analyzing restaurant user trend  
in business district**

Seiya Omonishi, Xiao Xiao, Hisashi Yamamoto, Yukio Maruyama and

Nozomi Oomiya

## **B5: Special Session-Human Interface**

**ROOM: Lily Jasmine (B2) TIME: Dec. 9 1330-1500**

**CHAIR: Takuya Tajima**

### **B5-1 (PAPER ID: 130)**

**Verification of 4-class classification accuracy based on auditory steady state response for Brain-Computer Interface**

Kazusa Shintani, Tadanobu Misawa and Shigeki Hirobayashi

### **B5-2 (PAPER ID: 131)**

**Evaluation of advertisement placement using near-infrared spectroscopy**

Chikaho Kurahashi, Tadanobu Misawa, Yasuhiro Inazumi and Shigeki Hirobayashi

### **B5-3 (PAPER ID: 132)**

**A study of analysis model using BCI for long-time**

Kikuji Obayashi, Tadanobu Misawa and Shigeki Hirobayashi

### **B5-4 (PAPER ID: 167)**

**Group conversation support system for hearing impaired person**

Yusuke Sarukura, Hidetaka Nambo, Shuichi Seto and Haruhiko Kimura

### **B5-5 (PAPER ID: 181)**

**The technique for transmitting a sentence by the soles stimulation**

Tomoya Kashiwa, Hidetaka Nambo and Haruhiko Kimura

### **B5-6 (PAPER ID: 90)**

**A fundamental study on analysis of brain activity according to the learning level**

Yuya Ohama and Keisuke Shida

## **B6: Simulation I**

**ROOM: Lily Jasmine(B2) TIME: Dec. 9 1520-1650**

**CHAIR: Haiying Wang**

### **B6-1 (PAPER ID: 76)**

**Electricity market risk measurement using Vine-Copula based Monte Carlo  
simulation model**

Rui Zha, George Mang, Kin Keung Lai and Kaijian He

### **B6-2 (PAPER ID: 110)**

**Modeling and teaching inventory management in multiplayer supply chain  
competition game using Excel and Google Sheets**

Berdymyrat Ovezmyradov, Yumi Meuthia and Hisashi Kurata

### **B6-3 (PAPER ID: 155)**

**A research on an efficient derivation method for feasible assembly sequences**

Satoru Yazawa, Osamu Ichikizaki, Takuya Hida,  
Toshiyuki Matsumoto and Shinji Shinoda

### **B6-4 (PAPER ID: 377)**

**A factory simulation system based on cloud services and portable  
scheduling intelligence**

Toly Chen and Tzu-Yun Lin

### **B6-5 (PAPER ID: 444)**

**Simulated annealing for capacity planning of reentrant production systems**

Geun-Cheol Lee, Jeong Man Hong, Jung Ug Kim and Seong-Hoon Choi

### **B6-6 (PAPER ID: 525)**

**Virtual sample based multi-objective optimization for high pressure turbine  
disc**

Guoqi Feng, Haiying Wang and Dongliang Cui

# **B7: Operations Research and Management Science III**

**ROOM: Lily Jasmine (B2) TIME: Dec. 10 0800-0930**

**CHAIR: Kenji Tanaka**

**B7-1 (PAPER ID: 166)**

**Multi-service facility location with applications  
to the recycling industry**

Ping-Ting Lin, Chun-Kai Hsu, Chao-Yu Hung and Chung-Shou Lia

**B7-2 (PAPER ID: 372)**

**China's S&T and Innovation studies since 1978:**

**A meta-analysis based on bibliometrics**

Yutao Sun

**B7-3 (PAPER ID: 316)**

**Optimal inventory allocation under substitutable demand**

Chi-Yang Tsai and Ju-Yen Lu

**B7-4 (PAPER ID: 445)**

**New Service design based on power demand forecasting methods  
using real customer data**

Hokuto Kano and Kenji Tanaka

**B7-5 (PAPER ID: 443)**

**Linked bibliographic data: an approach to integrating bibliographic data with  
external datasets from the Web**

Hendrik, Eko Budi Prasetyo and Teduh Dirgahayu

**B7-6 (PAPER ID: 356)**

**Exploring users' satisfaction and continuance intention  
towards E-Learning systems**

Ling-Lang Tang and Kiet Oanh Chau

## **C1: EAWIE-Decision Modeling and Theory**

**ROOM: Banquet Hall (III) (B2) TIME: Dec. 8 1330-1500**

**CHAIR: James J.H. Liou**

### **C1-1 (PAPER ID: 42)**

**A novelty hybrid method for integrated innovation in strategic supply chain management**

Ming-Lang Tseng, Anthony S.F. Chiu and Ming K. Lim

### **C1-2 (PAPER ID: 104)**

**Profitability and risk analysis for investment alternatives on C-R domain**

Hirokazu Kono and Osamu Ichikizaki

### **C1-3 (PAPER ID: 38)**

**Improving the service quality of public bike-sharing systems under information uncertainty**

James J.H. Liou, Yu-Chih Wang, Huai-Wei Lo and Chao-Che Hsu

### **C1-4 (PAPER ID: 268)**

**Application of a hybrid model for mitigating skill-based errors in military flight operations**

Jeng-Chung Chen and Shu-Chiang Lin

### **C1-5(PAPER ID: 393)**

**Garment design assessment using AHP and choquet integral**

Mohammad Adam Jerusalem and Shi-Woei Lin



## **C2: E-Business and Information Technology I**

**ROOM: Banquet Hall (III) (B2) TIME: Dec. 8 1520-1650**

**CHAIR: Chao Ou-Yang**

### **C2-1 (PAPER ID: 122)**

**Constructing a B2C repurchase intention model based on consumer  
perceptive factors**

Ling-Lang Tang, Che-Han Hsu and Ya-Wen Chan

### **C2-2 (PAPER ID: 193)**

**Determinants of m-commerce adoption in Indonesia: a neural  
network approach**

Yusraini Muharni, Chao Ou-Yang and Diah Priharsari

### **C2-3 (PAPER ID: 133)**

**Product improvement opportunity analysis based on text mining of  
online VOC: application of topic modeling and chance discovery  
theory**

Nam-uk Ko and Janghyeok Yoon

### **C2-4 (PAPER ID: 345)**

**Reclaim wafer defect classification using SVM**

Mei-Ling Liu and Fang-Chih Tien

### **C2-5 (PAPER ID: 87)**

**The impact of source, recipient, and tacit knowledge characteristics  
on tacit knowledge transfer effectiveness**

Amelia Kurniawati, TMA Ari Samadhi, Iwan Inrawan Wiratmadja and  
Rayinda Pramuditya Soesanto

### **C2-6 (PAPER ID: 88)**

**Knowledge sharing for individual innovation capability at  
Indonesian SMI**

Augustina Asih Rumanti, Tma Ari Samadhi and  
Iwan Inrawan Wiratmadja

## **C3: Service Science and Management**

**ROOM: Banquet Hall (III) (B2) TIME: Dec. 9 0900-1030**

**CHAIR: Jazmin Chong Tangsoc**

### **C3-1 (PAPER ID: 35)**

**Development of a multi-perspective assessment tool in evaluating the service quality of Philippine public HEIs**

Marc Immanuel G. Isip and Richard C. Li

### **C3-2 (PAPER ID: 56)**

**Use analytic hierarchy process for subcontractor evaluation in construction industry: a case study**

Bolor-saikhan Gankhuyag and Pei-Fang (Jennifer) Tsai

### **C3-3 (PAPER ID: 71)**

**Renewal process streamlining of a government service facility through simulation: a TRIZ approach in facilities system design**

Yoshiki B. Kurata, Rose Marie Lou P. Bano, Marjorie R. Navales, Darrel B. Cedron and Darcy Jules M. Pinga

### **C3-4 (PAPER ID: 78)**

**The self-checkout system: enhancement of customer satisfaction by reducing long queuing lines in checkout lanes of convenience stores in the Philippines**

Jocelyn D. Abad, Diana Rose C. Sayo, John Ritche P. Jandayan, Cris John D. De Villa, Hilda P. Villaflores and Maricar M. Navarro

### **C3-5 (PAPER ID: 204)**

**An ergonomic workstation analysis on call center agents**

Jonathan Edmon Abad, Ma. Monica Galarido, Angelee Faye Tiu and Jazmin Chong Tangsoc

### **C3-6 (PAPER ID: 306)**

**On evaluation of NFC technology in hypermarkets using the DEMATEL-based analytic network process**

Angela Hsiang-Ling Chen, Yun-Chia Liang and Tsung-Yu Huang

## **C4: Special Session-Industry 4.0**

**ROOM: Banquet Hall (III) (B2) TIME: Dec. 9 1050-1205**

**CHAIR: Chin-Yin Huang**

### **C4-1 (PAPER ID: 277)**

**Automatic programming for industrial robotics: a cornerstone for  
cyber-physical system in Industrial 4.0**

Shao-Hsuan Lin, Wu-Lin Chen and Chin-Yin Huang

### **C4-2 (PAPER ID: 348)**

**An operator assignment model in reconfigurable labour-intensive  
manufacturing cells**

Takayuki Kataoka, Katsumi Morikawa and Katsuhiko Takahashi

### **C4-3 (PAPER ID: 109)**

**System informatics-based services: a conceptual framework**

Kwang-Jae Kim, Chie-Hyeon Lim, Jun-Yeon Heo,  
Min-Jun Kim, Ki-Hun Kim and Chang-Ho Lee

### **C4-4 (PAPER ID: 446)**

**Impact of Guanxi on logistics performance in Thailand: a proposed  
method**

Poti Chao

## **C5: Supply Chain Management II**

**ROOM: Banquet Hall (III) (B2) TIME: Dec. 9 1330-1500**

**CHAIR: I-Hsuan Hong**

### **C5-1 (PAPER ID: 225)**

**A price-setting retailer sourcing from strategic suppliers facing  
disruption**

Suresh Sethi and Xi Shan

### **C5-2 (PAPER ID: 300)**

**Sustainable supplier selection with anp and fuzzy ANP: a salt  
production company example**

Chi-Yang Tsai and Stephany Molina

### **C5-3 (PAPER ID: 371)**

**Determining order-up-to level considering backorder cost per unit  
short on the base-stock inventory system under intermittent demand**

Keisuke Nagasawa and Takashi Irohara

### **C5-4 (PAPER ID: 511)**

**Allocation of cost savings in an O2O information-sharing supply  
chain**

An-Ni Lu and I-Hsuan Hong

### **C5-5 (PAPER ID: 195)**

**A moderating effect of task-technology fit model toward enterprise  
information portal (EIP) in Taiwan**

Chia-San Chang, Tsuang Kuo, Iuan-yuan Lu and Shih-Hsing Wu

## **C6: Management of Technology and Innovation**

**ROOM: Banquet Hall (III) (B2) TIME: Dec. 9 1520-1650**

**CHAIR: Iwan Inrawan Wiratmadja**

### **C6-1 (PAPER ID: 63)**

**Innovation process audit model: a case study in an electronics  
company**

Iwan Inrawan Wiratmadja, Fajar Wisma Prihantoro and  
Amelia Kurniawati

### **C6-2 (PAPER ID: 248)**

**Startup strategies of intermediate goods manufacturers in  
Thailand:-a case study of a Japanese-affiliated company-**

Kentaro Ito and Nobutaka Odake

### **C6-3 (PAPER ID: 140)**

**Invention property analysis of patents: a case of augmented reality  
technology**

Hayoung Choi and Janghyeok Yoon

### **C6-4 (PAPER ID: 107)**

**Role of SI vendors for the optimization of customer benefits:  
study on efficient utilization of program management**

Akihiko Sekiguchi and Tetsuro Seki

# **D1:Best Practice Paper Award Competition I**

**ROOM: Dragon Hall(3F) TIME: Dec.8 1330-1500**

**CHAIR: Chien-Yi Huang, CO-CHAIR: Ying-Yin Huang**

## **D1-1 (PAPER ID: 75)**

**Project selection via stochastic multi-criteria acceptability analysis**

Banting Wai Pan Sze, Kin Keung Lai and Yelin Fu

## **D1-2 (PAPER ID: 145)**

**A capacity trading and transfer pricing method for semiconductor  
manufacturing**

Muh-Cherng Wu, Jheng-Jie Peng and Chao-Wei Wang

## **D1-3 (PAPER ID: 177)**

**An ILS algorithm for the team orienteering problem with variable profit**

Aldy Gunawan, Kien Ming Ng, Graham Kendall and Junhan Lai

## **D1-4 (PAPER ID: 209)**

**Energy management of the Archimedean pump system**

Hiroshi Fujimoto and Seiichiro Miura

## **D1-5 (PAPER ID: 272)**

**A scheduling research in plant factory with considering multi-period harvest**

Kwei-Long Huang, Chao-Lung Yang, Che-Ming Kuo and Hao-Chen Weng

## **D1-6 (PAPER ID: 517)**

**An optimal switching model considered the risks of production, quality and due  
data for limited-cycle with multiple periods**

Jing Sun, Hisashi Yamamoto and Masayuki Matsui

## **D2: Best Practice Paper Award Competition II**

**ROOM: Dragon Hall (3F) TIME: Dec. 8 1520-1650**

**CHAIR: Chien-Yi Huang, CO-CHAIR: Ying-Yin Huang**

### **D2-1 (PAPER ID: 172)**

**Empirical study of indecision behavior in customer's purchase  
process using EC data**

Takashi Namatame and Tomoaki Tabata

### **D2-2 (PAPER ID: 190)**

**Selecting an air traffic flow management action to be implemented during  
airport congestion using a hybrid fuzzy MCDM approach**

Miriam F. Bongo and Lanndon A. Ocampo

### **D2-3 (PAPER ID: 197)**

**Nash marginal abatement cost estimation of air pollution emissions by stochastic  
semi-nonparametric frontier in the Coal-Fired power industry**

Chia-Yen Lee

### **D2-4 (PAPER ID: 222)**

**Analysis of impacts on the purchasing behavior using information on social  
networking services**

Kohei Otake and Takashi Namatame

### **D2-5 (PAPER ID: 465)**

**Optimal capacity design for unreliable assembly-like supply chain system**

Fong-Fan Wang

### **D2-6 (PAPER ID: 478)**

**A user-centered, innovative NPD with integration of scenario-based design and  
TRIZ**

Chun-Ming Yang, Ching-Han Kao, Thu-Hua Liu,

Yan-Lin Lee and Ya-Yi Zheng

## **D3: Green Manufacturing and Management**

**ROOM: Dragon Hall (3F) TIME: Dec. 9 0900-1030**

**CHAIR: Sha'ri Mohd Yusof**

### **D3-1 (PAPER ID: 57)**

**Analysis of evolutionary stability for behavior strategies on recycling promotion activity in green supply chain**

Daijiro Tomita and Etsuko Kusakawa

### **D3-2 (PAPER ID: 116)**

**Optimal operation with flexible ordering policy for green supply chain considering the uncertainties in product demand and collection quantity of used products**

Shin Yamaguchi and Etsuko Kusakawa

### **D3-3 (PAPER ID: 161)**

**A review of Eco-innovation concept**

Suziyana Mat Dahan and Sha'ri Mohd Yusof

### **D3-4 (PAPER ID: 368)**

**Applying eco-innovation for enhancing corporate functions under Chinese management style**

Li Cui, Min Zhang and Anthony S.F. Chiu

### **D3-5 (PAPER ID: 64)**

**Lean and green methodology in a shoe manufacturing company**

Jocelyn D. Abad, Franiel Germaine M. Tapang, Joe Ryan D. Romero, Mary Rose L. Anier, Timothy Ranil R. Domingo, Jhunnie Chris A. Bernabe and Yoshiki Kurata

### **D3-6 (PAPER ID: 338)**

**A study of resin as master jewelry material, a new alternative material to perform higher complexity and surface quality of jewelry master using CNC**

Paryana Puspaputra



## **D4: Health Care System II**

**ROOM: Dragon Hall (3F) TIME: Dec. 9 1050-1205**

**CHAIR: Chen-Yang Cheng**

### **D4-1 (PAPER ID: 360)**

**Using particle swarm optimization algorithm in manpower planning  
for a call center in healthcare service**

Chumpol Yuangyai, Sarusakorn Booranadiloak, Wan-Chen Chiang and  
Chen-Yang Cheng

### **D4-2 (PAPER ID: 363)**

**Using differential evolution in skull prosthesis modelling by superellipse**

Yu-Cheng Lin, Chen-Yang Cheng, Yi-Wen Cheng and Cheng-Ting Shih

### **D4-3 (PAPER ID: 462)**

**Mining sequential patterns of suffered diseases before getting Stevens-Johnson  
syndrome in Taiwan**

Shih-Chung Chou, Chao Ou-Yang and Yeh-Chun Juan

### **D4-4 (PAPER ID: 487)**

**Simulation application in healthcare: a case study of outpatient clinic in an  
hospital, hochiminh city**

Dat Tu Thien, Phong Ho Thanh, Nguyen Nguyen Truong and Quoc Ho Doan

## **D5: Other Related Topics in IE/MS II**

**ROOM: Dragon Hall (3F) TIME: Dec. 9 1330-1500**

**CHAIR: Balkrishna E. Narkhede**

### **D5-1 (PAPER ID: 148)**

**Social life cycle assessment of solar suitcase in a community of Doña Remedios**

**Trinidad, Bulacan**

Dyan C. Gonzales-Rodriguez and Hazel A. Caparas

### **D5-2 (PAPER ID: 508)**

**Modelling the critical risk factors causing accidents at the construction sites of**

**oil and gas projects**

Balkrishna E. Narkhede, Bhaskar M. Bhandarkar and Ashok K. Pundir

### **D5-3 (PAPER ID: 323)**

**A commodity trading policy to maximize the survival probability**

Wen-Chih Chen, Cheng-Hung Wu and Ping-Chung Chi

### **D5-4 (PAPER ID: 474)**

**Negotiation decision analysis on pricing of mobile application development with**

**the trading platform under the B2B market**

Jei-Zheng Wu and Tzu-Wen Yin

### **D5-5 (PAPER ID: 505)**

**A System dynamics approach on quality assurance system for undergraduate  
programs**

Yuli Agusti Rochman

### **D5-6 (PAPER ID: 391)**

**Development of machining feature recognition software module**

Wisnu Aribowo, Mohammad Mi'radj Isnaini and Anas Ma'ruf

## **D6: Other Related Topics in IE/MS IV**

**ROOM: Dragon Hall (3F) TIME: Dec. 9 1520-1650**

**CHAIR: Ronaldo V. Polancos**

### **D6-1 (PAPER ID: 512)**

**Study on the demand of rural electronic commerce talent under the Internet plus  
Era**

Minghui Long

### **D6-2 (PAPER ID: 518)**

**A project management model that considers risk failure, stakeholder  
involvement and communication effectiveness**

Ronaldo V. Polancos

### **D6-3 (PAPER ID: 369)**

**Industrial linkage, vertical M&As and market anticipation**

Xiangxiang Lang and Changqing Li

### **D6-4 (PAPER ID: 460)**

**Optimizing production plan using balanced-KPI**

Kohsuke Katoh

### **D6-5 (PAPER ID: 513)**

**Research on the construction of learning organization based on the knowledge  
management**

Minghui Long

### **D6-6 (PAPER ID: 230)**

**An integrated approach for production and distribution planning using a  
two-level routing pattern in global production networks**

Qian Huang, Jiahua Weng and Hisashi Onari

# **D7: Special Session-Uncertainties in Industrial and Management Systems I**

**ROOM: Dragon Hall (3F) TIME: Dec. 10 0800-0930**

**CHAIR: Baoding Liu**

**D7-1 (PAPER ID: 243)**

**Some theorems and algorithms for uncertain graphs**

Yuan Gao

**D7-2 (PAPER ID: 523)**

**Energy-efficient train scheduling problem with dynamic passenger  
demands**

Lixing Yang

**D7-3 (PAPER ID: 524)**

**Research on several problems about uninorms**

Hua-Wen Liu

**D7-4 (PAPER ID: 526)**

**Uncertain differential game with optimistic value criterion**

Xiangfeng Yang and Jinwu Gao

# **E1: Special Session-POM in Sharing Economy I**

**ROOM: Meeting Room (CR401) (4F) TIME: Dec. 8 1330-1500**

**CHAIR: I-Lin Wang**

**E1-1 (PAPER ID: 431)**

**On the crowdsourced repositioning scheme for public bike sharing systems**

I-Lin Wang and Chen-Tai Hou

**E1-2 (PAPER ID: 164)**

**Dynamic optimization of shared capacity under demand uncertainties and price differentiation**

Chao-Yang Hung, Elaine Lee, Cheng-Hung Wu

**E1-3 (PAPER ID: 176)**

**Bicycle-sharing with reallocation trucks and private exchange— Taipei**

**YouBike system as example**

Hui-Chih Hung, Jun-Min Wei, and Ming-Te Chen

**E1-4 (PAPER ID: 188)**

**Evaluating the need of dynamic stock balancing for bike sharing**

Katayut Kamano and Yon-Chun Chou

**E1-5 (PAPER ID: 180)**

**Dynamic booking management for shared private parking system**

Shuo-Yan Chou, Anindhita Dewabharata, Debby Rahmi Isnaeni and Zaenal Arifin

**E1-6 (PAPER ID: 250)**

**An automatic licensing framework for 3D printed content**

James Griffin, Hing Kai Chan, Fangli Zeng and Jia Jia Lim

## **E2: Special Session-POM in Sharing Economy II**

**ROOM: Meeting Room (CR401) (4F) TIME: Dec. 8 1520-1650**

**CHAIR: Kimitoshi Sato**

### **E2-1 (PAPER ID: 189)**

**Inventory management for items under product classification**

Cheng-Hung Wu, Ching-Jung Tang, Yi-Ju Ting and Yeni Ouyang

### **E2-2 (PAPER ID: 270)**

**Revenue-sharing contract with promotion cost for the film supply chain**

Kwei-Long Huang, Chia-Wei Kuo, Cheng-Che Ho and Chen-Ni Yen

### **E2-3 (PAPER ID: 296)**

**Optimal pricing for event tickets in a matching system**

Kimitoshi Sato, Kenichi Nakashima and Chisato Moriki

### **E2-4 (PAPER ID: 52)**

**Science of collaboration, balancing vs. sharing: a mathematical, physical and  
economical view**

Masayuki Matsui, Tetsuo Yamada and Masato Takanokura

# **E3: Best Student Paper Award Competition I**

**ROOM: Meeting Room (CR401) (4F) TIME: Dec. 9 0900-1030**

**CHAIR: Zhen-Hua Che, CO-CHAIR: Pei-Fang Tsai**

## **E3-1 (PAPER ID: 226)**

**Enhancing service quality of new draftees' physical examination using the hybrid  
simulation**

Cholada Kittipittayakorn, Kuo-Ching Ying

## **E3-2 (PAPER ID: 55)**

**Optimal sales strategies for dual channel under cooperation and competition  
considering customer purchasing preference**

Masahiro Yamamoto, Etsuko Kusukawa

## **E3-3 (PAPER ID: 198)**

**LASSO variable selection techniques in data envelopment analysis**

Jia-Ying Cai, Chia-Yen Lee

## **E3-4 (PAPER ID: 69)**

**Modeling and simulation of nonlinear phenomena for internet-aided  
manufacturing**

Xinhai Wang, AMM Sharif Ullah and Akihiko Kubo

## **E4: Best Student Paper Award Competition I**

**ROOM: Meeting Room (CR401) (4F) TIME: Dec. 9 1050-1205**

**CHAIR: Zhen-Hua Che, CO-CHAIR: Pei-Fang Tsai**

### **E4-1 (PAPER ID: 115)**

**Mean-variance analysis for optimal operation for green supply chain  
with uncertainties in product demand and collectable quantity of  
used products**

Naoto Takahashi, Etsuko Kusukawa

### **E4-2 (PAPER ID: 365)**

**An Optimization model for designing a resilient  
eco-industrial park network**

Bryan Timothy C. Tiu, Dennis E. Cruz

### **E4-3 (PAPER ID: 128)**

**Reliability analysis of 2-component standby redundant system with  
priority under limited information**

Satoshi Oigawa, Ikuo Arizono, Ryosuke Tomohiro,

Yasuhiko Takemoto

### **E4-4 (PAPER ID: 502)**

**An innovative decision support approach to hedge path dependent  
risk in option market**

Tianxiang Liu, Desheng Wu



## **E5: Reliability and Maintenance**

**ROOM: Meeting Room (CR401) (4F) TIME: Dec. 9 1330-1500**

**CHAIR: Fu-Kwun Wang**

### **E5-1 (PAPER ID: 46)**

**Reliability analysis in the field data with interval censored**

Fu-Kwun Wang and Johnny Lin

### **E5-2 (PAPER ID: 68)**

**Determining the optimal correlated multistate resource assignment with  
maximal network reliability using a hybrid GA-TS algorithm**

Cheng-Ta Yeh, Yi-Kuei Lin, Jo-Yun Yang

### **E5-3 (PAPER ID: 72)**

**Stochastic formulations of importance measures and their extensions to  
multi-state systems**

Fumio Ohi

### **E5-4 (PAPER ID: 441)**

**T modified replacement overtime policy for shock and damage model**

Satoshi Mizutani, Syouji Nakamura, Toshio Nakagawa

### **E5-5 (PAPER ID: 418)**

**Maintenance contract with imperfect preventive maintenance in  
dynamic operating condition**

R. Wangsaputra, A.H. Halim, and B. P. Iskandar, H. Husniah

### **E5-6 (PAPER ID: 269)**

**Suggesting adjusted impact factor by using F min search algorithm**

Woojin Lee, Junghoon Hah, Min Cheol Cha, and Jaewook Lee

## **E6: EAWIE-Product Design and Development**

**ROOM: Meeting Room (CR401) (4F) TIME: Dec. 9 1520-1650**

**CHAIR: Hitoshi Nishi**

### **E6-1 (PAPER ID: 210)**

**Knowledge management system for Universal Design training**

**- Attempt on a special subsidiary company as a facility for learning about technicians**

Seiichiro Miura, Sakiko Ogoshi, Yasuhiro Ogoshi, Naohiro, Hayashi, Takashi  
Yoshioka, Yutaka Yamaguchi, Hitoshi Nishi

### **E6-2 (PAPER ID: 217)**

**A study on production design: considering quality function deployment,  
multi-item designing and operating efficiency in the design phase**

Masamitsu Kiuchi, Hiroyuki Murata, Kin'ya Tamaki

### **E6-3 (PAPER ID: 311)**

**Understanding the consumers' perspective in accepting the ecolabel product by a  
structural reasoned model assessment**

Shu-Chiang Lin, Yulia Puspa Rachmaniati, Reny Nadlifatin, Mohammad Razif, Satria  
Fadil Persada, Albert Lin

### **E6-4 (PAPER ID: 350)**

**How Innovation transforms a defeated product into a success-a case study of  
CITY CAFÉ**

Chung-Cheng Tu, Su-Mei Chiu, Hue-Mei Liang

### **E6-5 (PAPER ID: 384)**

**Brief measure for fostering manufacturing engineers with universal design mind-  
effect of special subsidiary company tour for engineering students**

Hitoshi Nishi, Naoto Kaneda, Sakiko Ogoshi, Yasuhiro, Ogoshi, Seiichiro Miura

## **E7: Industrial Automation and IE Education**

**ROOM: Meeting Room (CR401) (4F) TIME: Dec. 10 0800-0930**

**CHAIR: Du-Ming Tsai**

### **E7-1 (PAPER ID: 85)**

**Automatic visual position and inspection of printed circuit boards using E-M  
algorithm**

Du-Ming Tsai and Yi-Chun Hsieh

### **E7-2 (PAPER ID: 136)**

**Development of an FDM-based additive manufacturing system for large-scale  
part fabrication**

Metha Phetawut, Chatuporn Tonglim, Thittikorn Phattanaphibul ,  
Natthawat Hongkarnjanakul and Jitote Thongta

### **E7-3 (PAPER ID: 194)**

**Development of support system for defect detection based on human visual  
mechanism in visual inspection process**

Yu Okabe, Ryosuke Nakajima, Takuya Hida and Toshiyuki Matsumoto

### **E7-4 (PAPER ID: 37)**

**Attitude change in learners who completed a technology management  
and career design fusion program as part of a liberal arts curriculum**

Kazuyoshi Ishii and Makoto Nakano

### **E7-5 (PAPER ID: 214)**

**Design of educational program for management of market, procurement and  
production — case study of educational program for supply and demand  
management in University**

Jing Sun, Masahiro Arakawa, Ichiro Koshijima and Yoshihiro Hashimoto

### **E7-6 (PAPER ID: 224)**

**Analysis on the feasibility of offering the b.s. industrial engineering program at  
Bataan Peninsula State University**

John Ryan C. Dizon

## **E8: E-Business and Information Technology II**

**ROOM: Meeting Room (CR401) (4F) TIME: Dec. 10 1050-1205**

**CHAIR: Kuentai Chen**

### **E8-1 (PAPER ID: 216)**

**Perceive intention of using mobile payment systems: apple pay**

Tsuang Kuo, Jian-De Lu, Iuan-Yuan Lu and Wei-Hsiu Wu

### **E8-2 (PAPER ID: 439)**

**A framework for improving IT service continuity management**

Teduh Dirgahayu and Ulya Anisatur Rosyidah

### **E8-3 (PAPER ID: 246)**

**Applying balanced scorecard approach in performance evaluation of enterprise**

**resource planning project**

Li-Man Liao and Xiang-Yu Lin

### **E8-4 (PAPER ID: 307)**

**Prediction of house unit price in taipei city using support vector regression**

Tse-Wei Lee and Kuentai Chen

### **E8-5 (PAPER ID: 473)**

**Consideration of cooperation for social value creation**

Morihiro. Kaede, Isao. Kato and Ichiro. Koshijima

# **F1: Ergonomics and Human Factors I**

**ROOM: Meeting Room (CR402)(4F)**

**TIME: Dec. 8 1330-1500**

**CHAIR: Sheau-Farn Max Liang**

## **F1-1 (PAPER ID: 51)**

**Environmental ergonomics and postural job analysis on handcrafting  
process of a small-scale jewelry enterprise**

Hazel A. Caparas

## **F1-2 (PAPER ID: 65)**

**Ergonomic evaluation of child car seat design**

Te-Hung Chen, Chien Yang and Mao-Jiun J. Wang

## **F1-3 (PAPER ID: 70)**

**Evaluation of standing stability and reaching postures on a  
stepladder for occupational fall prevention**

Atsushi Sugama and Akihiro Ohnishi

## **F1-4 (PAPER ID: 149)**

**MaxSorting: a new card sorting tool**

Yun-Ju Becker Lee and Sheau-Farn Max Liang

## **F1-5 (PAPER ID: 151)**

**A proposal for optimum gripping position and operating method  
focusing on the upper limb load and the control force**

Takahiro Naka, Takuya Hida and Toshiyuki Matsumoto

## **F2: EAWIE-Reliability and Maintenance**

**ROOM: Meeting Room (CR402)(4F)**

**TIME: Dec. 8 1520-1650**

**CHAIR: Won Young Yun**

### **F2-1 (PAPER ID: 91)**

**Expected severity model for FMEA under Weibull failure and detection time distributions with a common shape parameter**

Hyuck Moo Kwon, Shie-gheun Koh, Sung Hoon hong and Min Koo Lee

### **F2-2 (PAPER ID: 95)**

**A spare parts allocation problem for multi-level systems**

Wonseok Jeon, Nahyeon Kim and Won Young Yun

### **F2-3 (PAPER ID: 256)**

**Simulation-based optimal replacement model for a PCS in the ESS under combination warranty policy**

Young Jin Han, Hong Bean Park, Jae Jung Kim, Hyeon Ae Jang and Won Young Yun

### **F2-4 (PAPER ID: 398)**

**Cost analysis of two dimensional warranties considering lemon laws Chau B. P.**

Iskandar, A. Cakravastia and H. Husniah

### **F2-5 (PAPER ID: 414)**

**Maintenance service contracts for repairable product involving cooperative relationship between oem and agent**

H. Husniah, B. P. Iskandar and R. Wangsaputra

### **F2-6 (PAPER ID: 325)**

**Approximations for reliability of the connected-(1,2)-or-(2,1)-out-of-(m,n):F Lattice system**

Taishin Nakamura, Hisashi Yamamoto, Takashi Shinzato, Tomoaki Akiba and Mai Xiao Xiao

## **F3: Best Student Paper Award Competition II**

**ROOM: Meeting Room (CR402)(4F)**

**TIME: Dec. 9 0900-1030**

**CHAIR: Zhen-Hua Che CO-CHAIR: Pei-Fang Tsai**

### **F3-1 (PAPER ID: 395)**

#### **General share-a-ride problem**

Sesya Sri Purwanti, A. A. N. Perwira Redi and Vincent F. Yu

### **F3-2 (PAPER ID: 208)**

#### **Identifying product opportunities using topic modeling and sentiment analysis of social media data**

Byeongki Jeong and Janghyeok Yoon

### **F3-3 (PAPER ID: 236)**

#### **Indoor positioning method using proximity Bluetooth low-energy beacon**

Daiki Kudou, Mitsuyoshi Horikawa, Tatsuya Furudate  
and Azuma Okamoto

### **F3-4 (PAPER ID: 394)**

#### **Development a collide-based automated assembly sequence algorithm in industry 4.0**

Chi-Hsin Wang and Chen-Yang Cheng

### **F3-5 (PAPER ID: 289)**

#### **Profitability of hybrid manufacturing/remanufacturing system in closed loop supply chain**

Takumi Nanasawa and Yasutaka Kainuma

## **F4: Best Student Paper Award Competition II**

**ROOM: Meeting Room (CR402)(4F)**

**TIME: Dec. 9 1050-1205**

**CHAIR: Zhen-Hua Che CO-CHAIR: Pei-Fang Tsai**

### **F4-1 (PAPER ID: 424)**

#### **Implementation of triple bottom line concept and selection of a product design**

H. A. Salaam, Zahari Taha and T.M.Y.S. Tuan Ya

### **F4-2 (PAPER ID: 436)**

#### **Investigating technology and patent portfolio of lens-less cameras in the context of industry 4.0**

Usharani Hareesh Govindarajan, Amy J.C. Trappey and Charles V. Trappey

### **F4-3 (PAPER ID: 448)**

#### **A study of transforming strategy into a new business domain in the Japanese mature glass industrial cluster**

Ryo Terashima and Nobutaka Odake

### **F4-4 (PAPER ID: 504)**

#### **A system study on the outbound operations of a Philippine FMCG company's distribution center**

Anna Mikaella S. Bongato, Luis Enrique I. Caeg, Samantha R. Concepcion and Dennis E. Cruz



## **F5: Ergonomics and Human Factors III**

**ROOM: Meeting Room (CR402) (4F) TIME: Dec. 9 1330-1500**

**CHAIR: Caijun Zhao**

**F5-1 (PAPER ID: 152)**

**Proposal of tactile inspection conditions for valid defects detection  
focusing on haptic perception with active touch**

Kazuki kishi, Takuya Hida, Ryosuke Nakajima and Toshiyuki  
Matsumoto

**F5-2 (PAPER ID: 165)**

**Influence of occupational stress on the early turnover  
of young employees**

Haruka Saito, Masao Okano

**F5-3 (PAPER ID: 249)**

**Perceived floor slipperiness in a gait experiment**

Caijun Zhao, Ai-qun Liu, Lu Peng, Faming Jiang and Kai-Way Li

**F5-4 (PAPER ID: 320)**

**Integrating assembly aspect into ergonomic design of classroom  
furniture**

Supakan Kantow, Natthavika Chansri and Pensuda Phanritdum

**F5-5 (PAPER ID: 399)**

**Anthropometric mismatch between student's body dimensions and  
school furniture in Indonesian elementary school and proposed  
dimensions**

Yanto and Chih-Wei Lu

**F5-6 (PAPER ID: 433)**

**Modelling of ergonomic risks factors as predictors to work related  
fatigue near miss accidents experienced among Malaysian express  
bus drivers: partial least squares (PLS) approach**

Zahari Bin Taha and Yusof Bin Hashim

## **F6: Big Data Methodology and Applications**

**ROOM: Meeting Room (CR402) (4F) TIME: Dec. 9 1520-1650**

**CHAIR: Haruka Yamashita**

### **F6-1 (PAPER ID: 94)**

**Using big data analytics for money laundering detection – a case study**

Shih-Che Lo and Tzung-Shian Li

### **F6-2 (PAPER ID: 297)**

**Establishing a big data analysis framework and computing equilibrium market share with vehicle data**

Si-Jheng Ciou, Yi-Hau Huang, and Yu-Ching Lee

### **F6-3 (PAPER ID: 375)**

**Discrimination model for synthetic variables generated from explanatory variables considering sample attributes**

Haruka Yamashita and Masayuki Goto

### **F6-4 (PAPER ID: 463)**

**Multivariate time series classification for equipment monitor and fault detection**

Wei-Chen Liu and Chia-Yu Hsu

### **F6-5 (PAPER ID: 480)**

**Analysis and prediction of patent trajectory**

**Yun-Chia Liang, Angela Hsiang-Ling Chen**

and René Josué Aparicio Monjarás

### **F6-6 (PAPER ID: 494)**

**Modeling of quantification of sensible temperature by analyzing weather conditions and tweet data**

Takashi Maga, Kenta Mikawa, Masayuki Goto,  
and Tomohiro Yoshikai

## **F7: Simulation II**

**ROOM: Meeting Room (CR402) (4F) TIME: Dec. 10 0800-0930**

**CHAIR: Yoshiko Furusho**

### **F7-1 (PAPER ID: 200)**

**Generating correlated catastrophic disruption and yield loss  
logistics risks with known expected value and variance-covariance  
structure**

Chieh Lee and Gang S. Zhang

### **F7-2 (PAPER ID: 267)**

**Apply simulation application optimize production process for  
car industry**

Phan Van Tong

### **F7-3 (PAPER ID: 336)**

**Improving production capacity of Pre-Cast concrete production  
using simulation**

Muhammad Rusman and Sulfikar Abdullah

### **F7-4 (PAPER ID: 352)**

**For the Subjective Evaluation Items of the Pencil Still Drawing  
Evaluation System**

Yoshiko Furusho

### **F7-5 (PAPER ID: 440)**

**Development of a capacity planning simulation model for  
semiconductor wafer fabrication**

Li-Chih Wang, Ching-I Chen and Chun-Ya Chueh

### **F7-6 (PAPER ID: 407)**

**Design improvement of supply chain information system for public  
transportation services (case study: Trans Jogja)**

Agus Mansur, Dian Janari, Nashrullah Setiawan and Firman Bani Albar

# **G1: Data Mining I**

**ROOM: Meeting Room (CR403) (4F) TIME: Dec.8 1330-1500**

**CHAIR: Yukio Maruyama**

## **G1-1 (PAPER ID: 74)**

**A novel approach to handle imbalanced data for classification**

R. J. Kuo, L. Lin and F. E. Zulvia

## **G1-2 (PAPER ID: 119)**

**Development of forecasting method concerning water demands in the saitama city waterworks service area**

Yukio Maruyama, Hisashi Yamamoto, Masaaki Ohba and Atsushi Suzuki

## **G1-3 (PAPER ID: 142)**

**A study on distance metric learning using distance structure among category centroids**

Kenta Mikawa, Manabu Kobayashi, Masayuki Goto and Shigeichi Hirasawa

## **G1-4 (PAPER ID: 150)**

**An analytic model of relation between companies' recruitment activities and number of students' application based on mixture regression model**

Seiya Nagamori , Haruka Yamashita, Masayuki Goto and Tairiku Ogihara

## **G1- 5(PAPER ID: 179)**

**Multi-category classification based on ECOC approach using sub-categories**

Leona Suzuki, Haruka Yamashita and Masayuki Goto

## **G1- 6(PAPER ID: 238)**

**Competitive advantages of hair salon business influencing on consumer behavior**

Noriyuki Suyama and Takashi Namatame

## **G2: Health Care System I**

**ROOM: Meeting Room (CR403) (4F) TIME: Dec. 8 1520-1650**

**CHAIR: Tien-Lung Sun**

### **G2-1 (PAPER ID: 83)**

**Construct a discriminative system for cardiopathy using electrocardiogram data**

Chih-Hung Jen, Yu-Ming Lu, Yi-Min Huang and Bo-Hua Lian

### **G2-2 (PAPER ID: 237)**

**Development of a facial expression training system using muscle potential measurement and image processing**

Masahiro Yamada, Yasuhiro Ogoshi, Sakiko Ogoshi, Tomohiro Takezawa and Yoshinori Mitsuhashi

### **G2-3 (PAPER ID: 239)**

**Examining concentration using electroencephalography and electromyography**

Hisashi Goto, Yasuhiro Ogoshi, Sakiko Ogoshi, Masahiro Asahara, Kinuyo Aoyama and Yutaka Fujii

### **G2-4 (PAPER ID: 275)**

**The development of the bio-feedback system to support the good sleep and daily life**

Naoya Nisizuka, Kazuhiro Nakagawa, Sakiko Ogoshi, Yasuhiro Ogoshi, Yotu Saitou, Takahiro Komatsu, Akio Nakai and Yoshinori Mituhasi

### **G2-5 (PAPER ID: 235)**

**Knowledge management for intelligent fitness planning service in a Cloud**

Chuan-Jun Su, Yi-Tzy Tang and Chen-Yi Yang

### **G2-6 (PAPER ID: 340)**

**Interactive visualization to support fall risk assessment for community-dwelling elderly**

Chien-Hua Huang and Tien-Lung Sun

## **G3: Special Session-Application of IT to Tourism and**

**Education ROOM: Meeting Room (CR403) (4F)**

**TIME: Dec. 9 0900-1030**

**CHAIR: Masahide Yamamoto**

### **G3-1 (PAPER ID: 93)**

**A study on utilizing mobile phone users' location data in tourism**

Masahide Yamamoto

### **G3-2 (PAPER ID: 118)**

**A comparative study on hospitality in the urban and rural world**

Yuria Kuga, Emi Kajita, Ibuki Kuwano and Masahide Yamanoto

### **G3-3 (PAPER ID: 173)**

**Factors of increasing attractiveness of tourism-related Facebook pages**

Ayako Sawada and Taketoshi Yoshida

### **G3-4 (PAPER ID: 123)**

**Asymmetry of information and hospitality in the tourism industry**

Yuna Kose, Ryuta Toda, Kaho Sanda, Tsubasa Iyoda and Masahide Yamamoto

### **G3-5 (PAPER ID: 138)**

**Factors impacting travelers' sightseeing intentions**

Daiki Noguchi, Haruka Goto, Takahiro Ozeki and Masahide Yamamoto

### **G3-6 (PAPER ID: 231)**

**Development of educational programs for Global-PLM (product lifecycle management) producer through action project group activities by industry-university cooperation**

Kin'ya Tamaki, Young Won Park, Takeshi Abe and Satoshi Goto

## **G4: Inventory Modeling and Management**

**ROOM: Meeting Room (CR403) (4F) TIME: Dec. 9 1050-1205**

**CHAIR: The Jin Ai**

### **G4-1 (PAPER ID: 60)**

**Optimal sales strategy for seasonal demand with product life cycle  
considering markdown sales and price sensitivity**

Yuta Toki and Etsuko Kusukawa

### **G4-2 (PAPER ID: 174)**

**Relationship between fluctuation stock and safety stock**

Tomoaki Yamazaki and Keisuke Shida

### **G4-3 (PAPER ID: 247)**

**The shortage study of EOQ model with defective and reworked items**

Chiang-Sheng Lee, Hsine-Jen Tsai and Christian Bunjamin

### **G4-4 (PAPER ID: 416)**

**Forecasting of purchase dependent power demands using vector  
autoregressive model as basis for inventory policy in a retailer**

The Jin Ai, Ririn Diar Astanti, Maria Monika Wardoyo and  
Huynh Trung Luong

### **G4-5 (PAPER ID: 454)**

**Supply chain replenishment for multi-period newsvendor products**

Chun-Chin Wei and Liang-Tu Chen

## **G5: Data Mining II**

**ROOM: Meeting Room (CR403) (4F) TIME: Dec. 9 1330-1500**

**CHAIR: Xiao Xiao**

### **G5-1 (PAPER ID: 273)**

**A study on selecting similar projects in software effort estimation**

Kosuke Ito, Xiao Xiao and Hisashi Yamamoto

### **G5-2 (PAPER ID: 276)**

**Forecasting in thirty minutes amount of PV power generation using  
neural network**

Katsutoshi Maeda, Takahiro Komatsu, Takeaki Katsuki,  
Yasutoshi Takemoto, Sakiko Ogoshi and Osamu Haraguti

### **G5-3 (PAPER ID: 290)**

**A proposal of document recommendation based on topic model**

Yusei Yamamoto, Kenta Mikawa and Masayuki Goto

### **G5-4 (PAPER ID: 294)**

**A coupon effect model considering behavior data**

Kaitaro Endo, Haruka Yamashita and Masayuki Goto

### **G5-5 (PAPER ID: 295)**

**Modeling customer purchase behavior based on page transitions by  
latent class model for customer segmentation**

Yuki Matsuzaki, Kenta Mikawa and Masayuki Goto

### **G5-6 (PAPER ID: 328)**

**An ensemble strategy for multi-step-ahead time series forecasting**

JunYong Jeong and Chi-Hyuck Jun



# **G6: Production and Operations Management III**

**ROOM: Meeting Room (CR403) (4F) TIME: Dec. 9 1520-1650**

**CHAIR: Jia-Nian Zheng**

## **G6-1 (PAPER ID: 304)**

**Integration of bucket brigades and worker collaboration on discrete work stations**

Aditya Tirta Pratama, Katsuhiko Takahashi, Katsumi Morikawa,  
Keisuke Nagasawa and Daisuke Hirotsu

## **G6-2 (PAPER ID: 472)**

**Between the two parallel computing genetic algorithms – an example of scheduling**

Jia-Nian Zheng

## **G6-3 (PAPER ID: 139)**

**Design the value stream mapping for the green manufacturing a case study: Scancom Vietnam limited company**

Hoang Huy Nguyen, Vinh Truc Do and Phuong Thao Dao

## **G6-4 (PAPER ID: 141)**

**Modeling lean supply chain using simulation**

Ma.Teodora E. Gutierrez

## **G6-5 (PAPER ID: 309)**

**A job rescheduling model considering cutting tool failure and cutting tool life for a flexible manufacturing system**

Ari Setiawan, Rachmawati Wangsaputra, Abdul Hakim Halim and  
Yatna Yuwana Martawirya

## **G6-6 (PAPER ID: 516)**

**The optimization of inventory control for two-seasons demand and known price increase**

Kinley Aritonang, Romy Loice and Feby Tiffany

## **G7: Data Mining III**

**ROOM: Meeting Room (CR403) (4F) TIME: Dec. 10 0800-0930**

**CHAIR: Chi-Hyuck Jun**

### **G7-1 (PAPER ID: 333)**

**Data clustering with principle component for the complete  
Must-Link constraints**

Chao-Lung Yang, Nguyen Thi Phuong Quyen and Maisyatus Suadaa  
Irfana

### **G7-2 (PAPER ID: 359)**

**Integrated decision model for direct marketing: a case study on  
catalog mailing**

Jen-Ying Shih and Jin-Ru Huang

### **G7-3 (PAPER ID: 379)**

**Feature selection based on rough set theory using feature space  
decomposition for mixed-type data classification**

Kyung-Jun Kim and Chi-Hyuck Jun

### **G7-4 (PAPER ID: 386)**

**A study of extended RFM analysis based on PLSA model for  
purchase history data**

Qian Zhang, Haruka Yamashita, Kenta Mikawa and Masayuki Goto

### **G7-5 (PAPER ID: 506)**

**Effect of nationality and gender differences on postural stability  
while texting**

Nurul Retno Nurwulan and Bernard C. Jiang

### **G7-6 (PAPER ID: 507)**

**Data mining framework for identifying crime patterns using  
unsupervised learning: focusing on assault and theft**

Seunghwan Bang, Minchul Lee, Bongjun Ji, Jeongbin Kim, Hyunseop  
Park and Hyunbo Cho

# **G8: Quality Engineering and Management II**

**ROOM: Meeting Room (CR403) (4F)**

**TIME: Dec. 10 1050-1205**

**CHAIR: Ruey-Huei Yeh**

## **G8-1 (PAPER ID: 481)**

**Sustained quality award status in developing country: a study on  
the Dubai quality award recipients**

Mehran Doulatabadi, Sha'ri M. Yusof and KuanY. Wong

## **G8-2 (PAPER ID: 98)**

**Academic institution's performance based on Malcolm Baldrige  
education criteria for performance excellence: an assessment**

Arriane A. Palisoc

## **G8-3 (PAPER ID: 112)**

**The selection scheme on replacement policies for repairable  
two-component systems**

Tzu-Chun Hsu, Ya-Han Yu, Chun-Wen Chiu and  
Ruey-Huei Yeh

## **G8-4 (PAPER ID: 284)**

**Reducing defective alignment of laser drilling process**

Tzu-Chi Hsu and Chen-ju Lin

# **H1: Production and Operations Management I**

**ROOM: Meeting Room (CR405) (4F) TIME: DEC. 8 1330-1500**

**CHAIR: Jun Yamaguchi**

## **H1-1 (PAPER ID: 134)**

### **A study on the effect of mixing rate of defective products on defect detection in visual inspection**

Ryosuke Nakajima †, Syuhei Ando, Takuya Hida and Toshiyuki Matsumoto

## **H1-2 (PAPER ID: 92)**

### **Impacts of capital constraints on retailer's integrated ordering and pricing policies towards seasonal products**

Jinzhao Shi, Richard Y.K. Fung, Ju'e Guo and Osamu Ichikizaki

## **H1-3 (PAPER ID: 97)**

### **Process standardization in the upper making section of a shoe manufacturing company through ProModel simulation**

Jasy M. Bangayan, Joana Marie C. Beraquit, Jericho U. Casupang, Jenella Lim, Kevin

Lloyd V. Ubaldo, Michael Angelo M. Villamor, Maricar M. Navarro, and Mel

Benjamin A. Torres

## **H1-4 (PAPER ID: 117)**

### **Effects of 5s methodology for sustaining kaizen activity – case analysis on standstill conditions**

Jun Yamaguchi and Hirokazu Kono

## **H1-5 (PAPER ID: 40)**

### **Job productivity enhancement through plant facility layout improvement in company XYZ using promodel simulation**

Yoshiki Kurata †, Joshua Abano, Danielle Samantha Gundayao, John Paulo Rosuelo,

and Jocelyn Abad

## **H2: EAWIE-Production and Operations Management**

**ROOM: Meeting Room (CR405) (4F) TIME: Dec. 8 1520-1650**

**CHAIR: Koichi Nakade**

### **H2-1 (PAPER ID: 114)**

**Performance evaluation of pull-type control mechanisms for two-stage production systems with advance demand information**

Koichi Nakade†, Syuhei Ando and Ryosuke Nakatsuka

### **H2-2 (PAPER ID: 321)**

**Factor screening method for quantile-based performance measure**

Ying-Hsuan Lu, Kuo-Hao Chang, Liam Y. Hsieh, Yin-Jing Tien and Yi-Chang Chen

### **H2-3 (PAPER ID: 389)**

**A study on crisis management strategy: a case of Uni-President's product management**

Chung-Cheng Tu, Su-Mei Chiu † and Hue-Mei Liang †

### **H2-4 (PAPER ID: 282)**

**Optimal inventory policy for items with power demand, backlogging and discrete scheduling period**

Joaquín Sicilia †, Manuel González-de-la-Rosa, Luis A. San-José and Jaime Febles-Acosta

### **H2-5 (PAPER ID: 281)**

**An EOQ model with non-linear holding cost and partial backlogging under price and time dependent demand**

Luis A. San-José, Joaquín Sicilia †, Manuel González-de-la-Rosa and Jaime Febles-Acosta

### **H2-6 (PAPER ID: 39)**

**Garment sewing process delay problem: worker performance efficiency improvement in a Philippine garment company**

Yoshiki B. Kurata †, Kris Allen C. Cruz, Danielle Samantha U. Gundayao, Karl Ernest B. Dacumos, Erycka Joie S. Ladanga, and Maricar M. Navarro

## **H3: Special Session-Physical Function and Ergonomics I**

**ROOM: Meeting Room (CR405) (4F) TIME: Dec. 9 0900-1030**

**CHAIR: Hitoshi Nishi**

### **H3-1 (PAPER ID: 120)**

#### **HMD system for visual field impaired students**

Hiroyuki Kawabe†, Yuko Shimomura, Hidetaka Nambo, Shuichi Seto, and Hiroshi Arai

### **H3-2 (PAPER ID: 124)**

#### **The support system for the night blindness student using night vision camera**

Yuko Shimomura and Hiroyuki Kawabe, Shuichi Seto, Hiroshi Arai and Hidetaka Nambo

### **H3-3 (PAPER ID: 126)**

#### **Support system of active learning for hearing impaired student by using head mounted display**

Shuichi Seto†, Hiroyuki Kawabe<sup>1</sup> and Yuko Shimomura<sup>2</sup> and Hidetaka Nambo

### **H3-4 (PAPER ID: 129)**

#### **Visualization of environmental sound for the hearing impaired -support by manga technique-**

Hiroshi Arai †, Hidetaka Nambo, Yuko Shimomura, Hiroyuki Kawabe and Shuichi Seto

### **H3-5 (PAPER ID: 178)**

#### **Development of sleep disorder detection system ~ as part of development of clinical depression diagnosis support system for solitary person ~**

Takuya Tajima†, Takehiko Abe and Haruhiko Kimura

### **H3-6 (PAPER ID: 185)**

#### **Developed the design parameters of hand measurement and grip strength for handbrake and grip handle of motorcycle**

Po-Hsiang Liu, Sin-Long Jhuang, Tu-Chuan Wang, and Hung-Jen Chen

## **H4: Special Session-Physical Function and Ergonomics II**

**ROOM: Meeting Room (CR405) (4F) TIME: Dec. 9 1050-1205**

**CHAIR: Sakiko Ogoshi**

### **H4-1 (PAPER ID: 113)**

#### **A study of a simulated pulling task**

Cannan Yi, Kai Way L, Fan Tang, Hong Hu, Zejun Xie, Qiling Hu, Chengfeng Chen  
and Dongyang Qiu

### **H4-2 (PAPER ID: 221)**

#### **Ergonomics evaluation of lever-operated knapsack sprayer**

Juan C. Tecson

### **H4-3 (PAPER ID: 143)**

#### **Human's weight perception from container handles**

Shu Yi Zhou and Kai Way Li

### **H4-4 (PAPER ID: 233)**

#### **The selection of road transport service provider via analytical hierarchy process: a case study**

Natanaree Sooksaksun† and Tanutchai Watthanalapmongkol

### **H4-5 (PAPER ID: 421)**

#### **A study on the estimation method of the resident's location using the plant bioelectric potential**

Kohei Harutake, Hidetaka Nambo and Haruhiko Kimura

## **H5: Production and Operations Management II**

**ROOM: Meeting Room (CR405) (4F) TIME: Dec. 9 1330-1500**

**CHAIR: Ping-Chen Chang**

### **H5-1 (PAPER ID: 147)**

#### **Optimization of warehouse operations for Logistics Company in the Philippines**

Stephanie B. Duque, Maricar M. Navarro†, Bernaliza O. Verrey, Jovale C. Vitao and Sherilyn M. Zantua

### **H5-2 (PAPER ID: 220)**

#### **Production planning in virtual factory with Material-Inventory adjustment by means of transportations**

Jimaporn Pongvisutisak, Issarapong Khuankrue, and Yasuhiro Tsujimura

### **H5-3 (PAPER ID: 287)**

#### **Reliability with limited buffer capacity for a multistate manufacturing network with two production lines**

Ping-Chen Chang† and Chia-Chun Wu

### **H5-4 (PAPER ID: 298)**

#### **Modified work rule for Y-shaped self-balancing line with walk-back and travel time**

Daisuke Hirotsu†, Katsumi Morikawa, Katsuhiko Takahashi and Keisuke Nagasawa

### **H5-5 (PAPER ID: 362)**

#### **Modelling the yield learning process of semiconductor product using an ANN**

Toly Chen and Yao-Lei Wang

### **H5-6 (PAPER ID: 450)**

#### **Identification and time-series evaluation of stakeholders: a strategic approach for stakeholder management**

Chisa Ogawa and Testuro Seki



## **H6: EAWIE-Optimization Technique**

**ROOM: Meeting Room (CR405) (4F) TIME: Dec. 9 1520-1650**

**CHAIR: Ching-Jung Ting**

### **H6-1 (PAPER ID: 255)**

**On the convex relaxation for linear complementarity constraints**

Trang T. Nguyen, Jean-Philippe P. Richard and Mohit Tawarmanali

### **H6-2 (PAPER ID: 260)**

**Parallel algorithm for combination of SQP and PSO**

En-Cheng Chang and Yu-Ching Lee

### **H6-3 (PAPER ID: 456)**

**A heuristic optimization approach for hmm in machinery prognostics  
and health management**

Wen-Zhu Liao †, Shi-Hao Cui and Dan Li

### **H6-4 (PAPER ID: 479)**

**Job scheduling for hybrid assembly differentiation flowshop to  
minimize total actual flow time**

Rahmi Maulidya†, Rachmawati Wangsaputra, Suprayogi,  
and Abdul Hakim Halim

### **H6-5 (PAPER ID: 207)**

**Particle swarm optimization solving various capacitated P-median  
problem**

Phajongjit Pijitbanjong, Rapeepan Pitakaso† and Anurak Chaiwichian

### **H6-6 (PAPER ID: 49)**

**Particle swarm optimization for aggregators in smart grids demand  
response program**

Nattachat Wisittipanit and Warisa Wisittipanich†

## **H7: Production and Operations Management IV**

**ROOM: Meeting Room (CR405) (4F) TIME: Dec. 10 0800-0930**

**CHAIR: Zahari Taha**

### **H7-1 (PAPER ID: 466)**

**The study of parameter optimization for screen printing using  
consistent fuzzy preference relations and Taguchi methods**

Chui-Yu Chiu, Ying-Hao Lin, Pei-Yun Wang, Yen-Wen Kuo and Shu-Ting Chou

### **H7-2 (PAPER ID: 514)**

**WIP management systems for BullWIP management in  
semiconductor fabrication foundry**

M.Z. Mohd Darudin, M.A. Chik, Nor'Azah Khusairi, Lim Bee Lan,  
Zahari Taha and Hasbullah Ashaari

### **H7-3 (PAPER ID: 484)**

**Frugal innovation: a case study of internet based customization  
implementation in small and medium enterprises**

Risdiyono

### **H7-4 (PAPER ID: 227)**

**Revisiting the leagility supply chain migratory model: the case of  
halal food**

Mohd Helmi Ali and Kim Hua Tan

### **H7-5 (PAPER ID: 412)**

**The study of total-removal-volume (TRV) feature in handling the  
flexible machining shapes generation**

Mohammad M. Isnaini , Wisnu Aribowo , Anas Ma`ruf  
and Keiichi Shirase

## **H8: Financial Models and Engineering**

**ROOM: Meeting Room (CR405) (4F) TIME: Dec. 10 1050-1205**

**CHAIR: Woojin Chang**

### **H8-1 (PAPER ID: 36)**

**Credit scoring model for business start-ups**

Kenzo Ogi, Yuichi Utsumi and Norio Hibiki

### **H8-2 (PAPER ID: 341)**

**Exploring the underlying factors of single financial time series using  
EEMD-ICA based analysis method**

Lu Xian, Kaijian He, George Mang and Kin Keung Lai

### **H8-3 (PAPER ID: 367)**

**Capital structure of Chinese listed companies after the 2008 financial  
crisis: reliably important determinants of financial leverage**

Lukasz Stankiewicz and Jen-Ying Shih

### **H8-4 (PAPER ID: 425)**

**Asymmetric multi-fractality and market efficiency in stock indices of  
G-2 countries**

Minhyuk Lee, Jae Wook Song, Ji Hwan Park and Woojin Chang

### **H8-5 (PAPER ID: 476)**

**Visualization of risk appetite framework development process**

Yuko Iwasaki and Kenji Watanabe

# **I1: Sustainable Management**

**ROOM: Meeting Room (CR406) (4F)**

**TIME: Dec. 8 1330-1500**

**CHAIR: Kuo-Ping Lin**

## **I1-1 (PAPER ID: 34)**

**Service quality of water and sewerage companies**

Abrari Salleh and Sha'ri Mohd Yusof

## **I1-2 (PAPER ID: 102)**

**The regional initiative for sustainable woody biomass energy business  
- a case study on Maniwa area, Japan**

Yukako Harata, Nobutaka Otake and Norio Tokumaru

## **I1-3 (PAPER ID: 160)**

**Applying fuzzy DEMATEL with Yager's t-norms for green supply  
chain management**

Kuo-Ping Lin and Yu-Ting Lin

## **I1-4 (PAPER ID: 380)**

**The relationship between investor behavior and companies' response  
strategies in the climate change prevention activities research program**

Ryota Oki, Akira Tsuboi and Masako Takahashi

## **I1-5 (PAPER ID: 144)**

**A fuzzy approach for sustainable seaport-dry port network design**

Yu-Chung Tsao and Vo V. Thanh

# **I2: Supply Chain Management I**

**ROOM: Meeting Room (CR406) (4F)**

**TIME: Dec. 8 1520-1650**

**CHAIR: YoungSu Yun**

## **I2-1 (PAPER ID: 111)**

**Active response of strategic consumers to stockout**

Berdymyrat Ovezmyradov and Hisashi Kurata

## **I2-2 (PAPER ID: 127)**

**Reconsideration of a negotiation procedure for a buyback contract  
in a supply chain**

Shin Tsurui, Yasuhiko Takemoto, Ikuo Arizono and Ryosuke Tomohiro

## **I2-3 (PAPER ID: 146)**

**A continuous approximation approach for Seaport- Dry port  
network design**

Yu-Chung Tsao and Thuy Linh Vu

## **I2-4 (PAPER ID: 157)**

**Integrated supply chain design problem with various handling  
processes**

Young Su Yun, Anudari Chuluunsukh, Xing Chen and Mitsuo Gen

## **I2-5 (PAPER ID: 159)**

**Closed-loop supply chain design for production system using part  
and module**

Xing Chen, Anudari Chuluunsukh, Young Su Yun  
and Mitsuo Gen

## **I2-6 (PAPER ID: 199)**

**Demand driven inventory replenishment strategy combining demand  
information by CUSUM in semiconductor industry**

Yung-Chia Chang, Kuo-Hao Tsao and Chien-Hua Liu

# **I3: Decision Support System and Expert System**

**ROOM: Meeting Room (CR406) (4F)**

**TIME: Dec. 9 0900-1030**

**CHAIR: Chieh-Yuan Tsai**

## **I3-1 (PAPER ID: 301)**

**An implicit rating based product recommendation system**

Chieh-Yuan Tsai and Sih-Wei Shen

## **I3-2 (PAPER ID: 374)**

**Comparison of different sales forecasting techniques for computer servers**

I-Fei Chen, Tian-Shyug Lee, Ming Gu and Chi-Jie Lu

## **I3-3 (PAPER ID: 415)**

**A buyer vendor coordination model**

Ririn Diar Astanti, The Jin Ai, Dah-Chuan Gong and Huynh Trung Luong

## **I3-4 (PAPER ID: 430)**

**Implementation of machine learning C4.5 algorithm to forecast**

**regional economic development classification**

Hendra M Setiawan and Aditya Wedha

## **I3-5 (PAPER ID: 308)**

**The development of behavioral understanding support system for**

**children with developmental disorders**

Sakiko Ogoshi, Toru Saitou, Yuuiti Takaku, Yasuhiro Ogoshi, Masahiro Asahara, Yoshinori Mituhasi, Sinzou Isigami, Seiichiro Miura and Takashi Oyabu.

## **I4: Transportation**

**ROOM: Meeting Room (CR406) (4F)**

**TIME: Dec. 9 1050-1205**

**CHAIR: Ching-Jung Ting**

### **I4-1 (PAPER ID: 490)**

**Optimization of the ratio of transport mode for international  
transportation**

Araoaka Kenji, Tanaka Kenji and Heng Wang

### **. I4-2 (PAPER ID: 265)**

**Heterogeneous fleet vehicle routing problem in delivering industrial  
gas**

Ho Thanh Phong and Nguyen Minh Hien

### **I4-3 (PAPER ID: 315)**

**Scheduling quay crane and yard equipment: a case study of terminal  
in central region**

Ho Thanh Phong and Son Nguyen Hoang

### **I4-4 (PAPER ID: 322)**

**Multimodal transportation optimization for an automobile  
production in Vietnam**

Huỳnh Gia Bảo Ngọc and Hồ Thanh Phong

# **I5: Logistics Management**

**ROOM: Meeting Room (CR406) (4F)**

**TIME: Dec. 9 1330-1500**

**CHAIR: Carles Sitompul**

## **I5-1 (PAPER ID: 108)**

**Improving reverse logistics performance in e-retailing: a consumer's perspective**

Erika Fatma and Winanda Kartika

## **I5-2 (PAPER ID: 169)**

**An optimization procedure to solve forward-reserve allocation problem with (s, S) policy**

Takashi Irohara and Keisuke Nagasawa

## **I5-3 (PAPER ID: 254)**

**A robust optimization model for lot sizing with dynamic demands**

Aurora Rostenila and Carles Sitompul

## **I5-4 (PAPER ID: 346)**

**Supply chain planning with cross-echelon reverse logistics using data envelopment analysis and particle swarm optimization**

Z.H. Che, K.H. Hsiao, J.Y. Chang and C.L. Chen

## **I5-5 (PAPER ID: 461)**

**Optimizing liner shipping network considering empty container repositioning**

Heng Wang and Kenji Tanaka

## **I5-6 (PAPER ID: 522)**

**Establish performance assessment mechanism for reverse logistic of leather industry by cost-benefit approach**

Chu-Yao Sheng, Chang-Ya Ting, Cheng-Feng Tsung and Wu-Mei Fang



## **I6: Supply Chain Management III**

**ROOM: Meeting Room (CR406) (4F)**

**TIME: Dec. 9 1520-1650**

**CHAIR: Mu-Chen Chen**

### **I6-1 (PAPER ID: 464)**

**Optimizing vehicle routing in the food Cross-Docking system**

Mu-Chen Chen, Yu-Hsiang Hsiao, Arkojyoti Basak and Manoj Kumar Tiwari

### **I6-2 (PAPER ID: 317)**

**Supply chain network designing strategy: a case study of lily flower**

Ho Thanh Phong and Le Thi Thy

### **I6-3 (PAPER ID: 334)**

**Multi-objective supply chain design modeling for fresh fruit products in Vietnam**

Nhieu Nhat Luong and Ho Thanh Phong

### **I6-4 (PAPER ID: 335)**

**The relationship among creative development activities, mentoring and knowledge management and technical knowledge transfer effectiveness:**

**An empirical study**

Tsuang Kuo, Chih-Ta Chen, Iuan-yuan Lu and Jung-Chu Ho

### **I6-5 (PAPER ID: 349)**

**Supply chain design for agriculture product in Viet Nam:**

**A case study of Sturgeon in Kon Tum province**

Dao Anh Kim Ngan and Ho Thanh Phong

# **I7: Supply Chain Management IV**

**ROOM: Meeting Room (CR406) (4F)**

**TIME: Dec. 10 0800-0930**

**CHAIR: Udom Janjarassuk**

## **I7-1 (PAPER ID: 401)**

**An optimization approach for farmer selection and allocation in  
agricultural supply chain**

Natchanon Benjamanukul, Udom Janjarassuk and Kanokporn Rienkhemaniyom

## **I7-2 (PAPER ID: 428)**

**Triple bottom line sustainability analysis of a supply chain**

Muhammad Ridwan Andi Purnomo, Kido Hernowo, Agung Aulya Perdana Tanjung,

Azel Adityaand and Zahari Taha

## **I7-3 (PAPER ID: 509)**

**Using Latin hypercube sampling to improve solution for a supply  
chain network design problem**

Kantapit Kaewsuwan, Udom Janjarassuk, Kanokporn Rienkhemaniyom and

Chumpol Yuangyai

## **I7-4 (PAPER ID: 354)**

**Supply chain design for the agricultural products in Vietnam: a case  
study of Sim Wine in Kon Tum Province**

Le Thi Kim Trang and Ho Thanh Phong

# **J1: Other Related Topics in IEMS I**

**ROOM: Rosewood (4F) TIME: Dec. 8 1330-1500**

**CHAIR: Masahiro Shibuya**

## **J1-1 (PAPER ID: 81)**

**Inter-group knowledge sharing in enhancing group learning**

Ceicalia Tesavrita, Kadarsah Suryad, Iwan Inrawan Wiratmadja and Rajesri

Govindaraju

## **J1-2 (PAPER ID: 105)**

**Hybrid communication model:**

**project risk analysis of IS development by using multi-agent**

**simulation technique**

Shin-nosuke Yokota and Tetsuro Seki

## **J1-3 (PAPER ID: 156)**

**Development of Komatsuna production management system in small size of**

**farming**

Taiki Nasu, Hiroshi Shimizu, Takuya Hida and Toshiyuki Matsumoto

## **J1-4 (PAPER ID: 163)**

**Estimation of volatility for Hong Kong growth**

**enterprise market**

George Mang, Jiangze Du and Kin Keung Lai

## **J1-5 (PAPER ID: 191)**

**A study on continuous improvement activity support by the IoT technique**

Masahiro Shibuya, Kenichi Iida, Toshifumi Sakai and Koki Mikami

## **J1-6 (PAPER ID: 202)**

**A probe for organizational dynamics**

Shin-Guang Chen

## **J2: EAWIE-Logistics Management I**

**ROOM: Rosewood (4F) TIME: Dec. 8 1520-1650**

**CHAIR: Imam Djati Widodo**

### **J2-1 (PAPER ID: 251)**

**An ant colony optimization for the capacitated arc routing problem**

Han-Shiuan Tsai and Ching-Jung Ting

### **J2-2 (PAPER ID: 288)**

**An analysis of multi-objective decision problem in  
humanitarian supply chains**

Takeo Kobayashi , Yacob Khojasteh and Yasutaka Kainuma

### **J2-3 (PAPER ID: 329)**

**A simulation-based testbed for evaluating an appointment system in  
port terminals**

Vu Duy Duong, Hyo Jae Kim, Lin Gui and Kap Hwan Kim

### **J2-4 (PAPER ID: 331)**

**A heuristic algorithm for generating stowage plans**

Cao Hoang Tuan, Sejin Park, Soondo Hong and Kap Hwan Kim

### **J2-5 (PAPER ID: 427)**

**The analysis of supplier selection method with interdependent criteria**

Imam Djati Widodo and Budi Baharudin

### **J2-6 (PAPER ID: 468)**

**Optimization of distribution route selection based on combination of time and  
distance**

Imam Djati Widodo, Ali Parkhan and Mahmud Basuki

# **J3: Quality Engineering and Management I**

**ROOM: Rosewood (4F) TIME: Dec. 9 0900-1030**

**CHAIR: Yasuhiko Takemoto**

## **J3-1 (PAPER ID: 30)**

**Double EWMA run-to-run controller for high mixed product mode**

Shu-Kai S. Fan and Yu-Ling Liao

## **J3-2 (PAPER ID: 45)**

**Optimal process mean setting under the quality and cost**

Chung-Ho Chen

## **J3-3 (PAPER ID: 80)**

**Verification of product performance management by process  
capability index**

Akimasa Otsuka

## **J3-4 (PAPER ID: 106)**

**A study of method for tracing state transition on time series  
of process variance**

Yasuhiko Takemoto and Ikuo Arizono

## **J3-5 (PAPER ID: 241)**

**Encapsulation process study and yield model for smart phone manufacturing**

Shu-Hua Li, Chien-Yi Huang and Gwo-Donq Wu

## **J3-6 (PAPER ID: 259)**

**Using Confidence intervals of index cpp to construct an evaluation system for  
manufacturers**

Cheng-Fu Huang, Wan-Yu Lan and Kuen-Suan Chen

## **J4: Optimization Technique**

**ROOM: Rosewood (4F) TIME: Dec. 9 1050-1205**

**CHAIR: Kung-Jeng Wang**

### **J4-1 (PAPER ID: 215)**

**Multi-objective artificial bee colony with multi-movement strategies for solving multi-objective optimization problems**

Sheng-Ta Hsieh and Chun-Ling Lin

### **J4-2 (PAPER ID: 299)**

**Inverse optimization for utility measurement**

Yi-Hau Huang and Yu-Ching Lee

### **J4-3 (PAPER ID: 342)**

**Integrating simulation and optimization for optimizing hospital layout: case study of hospital 115**

Nguyen Truong Nguyen, Ho Thanh Phong and Ho Doan Quoc

### **J4-4 (PAPER ID: 291)**

**A new algorithm hybridizing differential evolution with particle swarm optimization**

Jin Xue, K-J. Wang, Phuc Hong Nguyen, and Shaw Yi. Wu

### **J4-5 (PAPER ID: 409)**

**Solving the capacitated facility location problem using a cuckoo search**

Yu-Min Chiang and Chih-Hao Chou

## **J5: Other Related Topics in IE/MS III**

**ROOM: Rosewood (4F) TIME: Dec. 9 1330-1500**

**CHAIR: Masahiro Arakawa**

### **J5-1 (PAPER ID: 211)**

**Scheduling method for simultaneous reduction of Makespan and weak points  
of workers**

Yukiko Kanbara, Masahiro Arakawa and Takumi Wada

### **J5-2 (PAPER ID: 212)**

**A study of design method of process and layout of parts and facilities for cell  
production**

Mizuki Ohashi, Masahiro Arakawa, Takumi Wada and Keita Sugiura

### **J5-3 (PAPER ID: 213)**

**Design of educational program for management of market,  
procurement, and production —case study of educational program for factory  
management in university**

Masahiro Arakawa, Takumi Wada, Jing Sun, Ichiro Koshijima and Yoshihiro  
Hashimoto

### **J5-4 (PAPER ID: 234)**

**An optimal model for integrating robust parameter and tolerance  
designs for asymmetric quality characteristic**

Wildan Trusaji, Muhammad Akbar and Dradjad Irianto

### **J5-5 (PAPER ID: 283)**

**Shift scheduling model considering workload for housekeeping department**

Jockvom, Deny Ratna Yuniartha, Ign. Luddy Indra Purnama, and Luciana Triani  
Dewi

### **J5-6 (PAPER ID: 310)**

**Word acquisition of Japanese classical literature using state transition model**

Makoto Suzuki, Bin Xu, Naohide Yamagishi and Masayuki Goto

## **J6: EAWIE-Logistics Management II**

**ROOM: Rosewood (4F) TIME: Dec. 9 1520-1650**

**CHAIR: Ilkyeong Moon**

### **J6-1 (PAPER ID: 47)**

**A study on the strategies and recommendations for developing  
circular economy in Taoyuan City, Taiwan**

An-Pi Chang , Chien-Hwa Yu, Wen-Tsan Cheng and Jyh-Dong Lin

### **J6-2 (PAPER ID: 285)**

**Optimal routing problem for responders in emergency situations**

Sungwoo Kim, Youngchul Shin, Seohyeon Choi and Ilkyeong Moon

### **J6-3 (PAPER ID: 305)**

**A new heuristic method for solving the bi-objective period traveling  
salesman problem with tour balancing**

I-Ming Chao and Chih-Chuan Chien

### **J6-4 (PAPER ID: 381)**

**The pickup and delivery multi-depot vehicle routing problem**

Parida Jewpanya, Yu-Wei Chen and Vincent F. Yu

### **J6-5 (PAPER ID: 434)**

**Optimal scheduling of airport's runway operations a case study in  
Tan Son Nhat international airport**

Ho Thanh Phong and Nguyen Van Hai



## **J7: Other Related Topics in IEMS V**

**ROOM: Rosewood (4F) TIME: Dec. 10 0800-0930**

**CHAIR: Miao-miao Li**

### **J7-1 (PAPER ID: 417)**

**Imaging with an ultra-high-speed video camera working at 20 mega-frames  
per second**

Son V.T. Dao and Takeharu G. Etoh

### **J7-2 (PAPER ID: 467)**

**In Search for a public servant competency model: a literature review**

Joe Monang, Iman Sudirman and Joko Siswanto

### **J7-3 (PAPER ID: 510)**

**A flexible period multi-objective multi-mode networking model  
for post-disaster relief goods distribution**

Michael Ang, Jensen Duyag, Jayne San Juan, Kimberly Tee, Dr. Eppie Clark

### **J7-4 (PAPER ID: 515)**

**The LMEs R&D volatility, innovation output and business  
performance in Chinese high-tech industry**

Miao-miao Li, Hai-bo Li, Hai-ning Wang and Zuo-han Luo

### **J7-5 (PAPER ID: 186)**

**Relationships among service quality, customer satisfaction and customer  
loyalty: a case study on mobile shopping APPs**

Tsuang Kuo, Gwo Yang Tsai, Iuan-yuan Lu and Jung-Sen Chang

### **J7-6 (PAPER ID: 86)**

**Occupational health problems and issues of sleep deprivation among inbound  
call center agents using structural equation modelling**

Yoshiki B. Kurata and Joshua Gilmore R. Peralta