

## 2017 The 8th International Conference on Systematic Innovation (ICSI)

### Technical Sessions

2017/7/12 PM 18:30-20:30 [Session A -0] -ROOM- 634-1

Chair: Min-Gyu Lee Co-Chair: Li-Yuan Chen

ID	Paper Title	Author(s)
114	A Theory-driven Comparison and Enlightenment of TRIZ, USIT and ASIT	Wei YAO, Xu HAN
149	Disruptive Innovation: Transforming Commodity to High-Value Innovative New Products	Kim Hua Tan, Hui Hong Li, Pui Ling Chung
107	Patent around Target Definition to patent group	Yuansong Zheng, Changqing Gao, Zhenghe Xu, Shuxue Yin, Jianhua Sun
162	An Innovation Case Study of Parallel Bars in Rehabilitation Department: TRIZ Application	TZU LING PAN, CHIH-HSIEN CHEN
166	An Innovation Case Study of Tilting Table in Rehabilitation Department: TRIZ Application	Chie-Yu Lin, CHIH-HSIEN CHEN

2017/7/13 AM 09:00-10:00 [Session A -1] -ROOM- B634-1

Chair: Min-Gyu Lee Co-Chair: Hui-Hua Ouyang

ID	Paper Title	Author(s)
111	The Originality of Reverse Umbrella	Jyhjeng Deng, Youn-Jan Lin, Jo-Peng Tsai
119	The High Heel with Dual Function	Jyhjeng Deng, Jo-Peng Tsai, Youn-Jan Lin, Teng-Hsuan Lin
113	Systematic innovation design of tire breaker based on TRIZ	Kang Wang, Jianguang Sun, Yu Wang, Jian Gao, Huitong Fu

2017/7/13 AM 09:00-10:00 [Session A -2] -ROOM- B634-2

Chair: CHIH-HSIEN CHEN Co-Chair: Hing Keung Lau

ID	Paper Title	Author(s)
117	TRIZ Application on Fishing Hand Pole with An Active Scent Releasing Lure to Increase Fish Catch Rates	Jeng Yaug-Fea, Hsia Tai-Chang, Huang Su-Chen
127	Applying TRIZ and Knowledge Management to Customer Complaint Problem for Fastener Industry	Jo-Peng Tsai, Shih-Chuan Cheng
120	The Patent Map of a Measuring Cup	Jyhjeng Deng, Juin Yi Lee

2017/7/13 AM 09:00-10:00 [Session A -3] -ROOM- B643

Chair: Jabir Walji Co-Chair: Po-Hsiang Liu

ID	Paper Title	Author(s)
130	Design a Device to Detect Vibrations of Building Based on Substance-Field Analysis	Shan-Yang Wang
131	Design Self-Alleviating Pain System Based on TRIZ method	Shan-Yang Wang
172	Algebra of Systems Approach to Innovation Process Management: Formalized Framework for Addressing Grand-Challenge Problems	Stephen Lew, Benjamin Koo

2017/7/13 AM 10:20-12:00 [Session B-1] -ROOM- B634-1

Chair: Runhua Tan Co-Chair: Tai-Chang Hsia

ID	Paper Title	Author(s)
137	Developing a New Beeswax Extractor with Systematic Innovation Method	Jo-Peng Tsai, Jyhjeng Deng, Youn-Jan Lin
147	Applying Functional Analysis and Evolution Trends to Deal with Problem that Teacher Poorly Controls Students	Youn-Jan Lin, Jyhjeng Deng, Jo-Peng Tsai
148	Applying Functional Analysis and Inventive Standards to Deal with Problem of iPhone Interferes Students learning	Youn-Jan Lin, Jo-Peng Tsai, Jyhjeng Deng
154	Disruptive Cities Verses Smart Cities for the Gulf Countries and Systematic Innovation	Jibrán Walji, Jabir Walji

2017/7/13 AM 10:20-12:00 [Session B -2] -ROOM- B634-2

Chair: Jyhjeng Deng Co-Chair: Olga Bogatyreva

ID	Paper Title	Author(s)
109	A Study on Trimming Method Based on Root-cause Analysis	Zhao Lei, Zhang Huan-gao, Yang Heng-can, Liu Li-meng
110	AN INTEGRATED TRIZ AND FEA FRAMEWORK FOR ENGINEERING CHANGE REQUESTS RESOLUTION	Michael H. Wang
146	A Questionnaire to Study the Effects of Applying the User-Centric NPD with Integration of Scenario-Based Design and TRIZ	Chun-Ming Yang, Thu-Hua Liu, Yan-Lin Lee
140	Modification of AFD for Green Product Design	Hsin Rau, Po-Hsun Chen, Mary Deanne Lagapa

**The 8<sup>th</sup> International Conference on Systematic Innovation 2017.07.11~14, Beijing, China**

2017/7/13 AM 10:20-12:00 [Session B -3] -ROOM- B643

Chair: Chen, Shou-Wei Co-Chair: Chi Ho LI

ID	Paper Title	Author(s)
115	Research on Radical Innovation Process of Mechanical Product	FENG Yan-xia, YANG Bo-jun, SUN Qun
121	Review of Modeling Techniques for Conceptual Stage of Design	Lizhen Jia, Xuehong Zhu, Runhua Tan
126	Industry 4.0-Oriented Systematic Innovation Framework for Fastener Industry	Jo-Peng Tsai, Shih-Chuan Cheng
165	Introduction to a Mainstream Korean TRIZ Methodology, DASE, and its application in Korea	Min-Gyu Lee, Yury Danilovskiy, Vasily Lenyashin, Sung-Hong Kim, Kyujin Jung

2017/7/13 PM 13:00-15:00 [Session C-1] -ROOM- B634-1

Chair: Michael Wang Co-Chair: Gao, Changqing

ID	Paper Title	Author(s)
116	Applying the Market Orientation with TRIZ Approach in NPD	Shou-Wei Chen, Yen-Hsiu Chen
118	Business TRIZ on enhancing the Long-term Care Facilities for the Elderly-take	Hsia Tai-Chang, Huang Su-Chen
163	Study on the Ecological Design Method of Idealized Perceptual Interaction of Silage Machinery	Jie Yan, Bing Lv, Jianqiang Wang, Bo Yang, Mengjia Chen
164	Study of Silage Machine by Active Optimization Structure Principle	Jianqiang WANG, Bing LV, Jie YAN, Changqing GAO, Zequn LI

2017/7/13 PM 13:00-15:00 [Session C -2] -ROOM- B634-2

Chair: Po-Hsiang Liu Co-Chair: Yu-Gang Chen

ID	Paper Title	Author(s)
135	A Preliminary Study on Developing Design Thinking Based Systematic Innovation	Chun-Ming Yang, Thu-Hua Liu, Ya-Yi Zheng
138	Developing a No-Disturbing Others' Alarm Clock with Systematic Innovation Method and Arduino System	Jo-Peng Tsai, Youn-Jan Lin, Jyhjeng Deng
155	A Review on Safety Integration Solving Tools in Innovative Design Process	Shu Lun Mak
153	The Fit Effects of Multi-Brand Strategy Enterprise	Hui-Hua Ouyang, Hsiao-Yu Chang

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2017/7/13 PM 13:00-15:00 [Session C -3] -ROOM- B643

Chair: Jabir Walji Co-Chair: Li-Yuan Chen

ID	Paper Title	Author(s)
145	Applying Systematic Innovation Method to Improve a Roasting Oven	Jo-Peng Tsai, Shih-Chuan Cheng
132	Psychological Inertia in Communication of Innovation	Shan-Yang Wang
151	A Model of Instruction for Systematic Innovation in University Based on a Cross-Disciplinary Course and its Application	Zhou Xianyong, Chen Guang, Tang Zhihong, Liu Feng

2017/7/13 PM 15:30-17:30 [Session D-1 (Chinese)] - B634-1

Chair: Tsai, Jo-Peng Co-Chair: Huan-gao ZHANG

ID	Paper Title	Author(s)
C-150	TRIZ40 条发明原理的中华诗词诠释及教学模式创新探析 Expression of 40 Inventive Principles in TRIZ by Chinese Poetry and its New Model of Instruction	周賢永, 陳光, 唐志紅, 劉鳳 Xianyong Zhou, Guang Chen, Zhihong Tang, Feng Liu
C-167	應用系統化創新技術處理高齡化社會問題之研究 Research on the Application of Systematic Innovation Technology to the Problem of Aging Society	陳立元, 陳光震 Li-Yuan Chen, Guang-Zhen Chen

2017/7/13 PM 15:30-17:30 [Session D -2] -ROOM- B634-2

Chair: Darrell Mann Co-Chair: Chen Guang

ID	Paper Title	Author(s)
122	Prioritized TRIZ Trend Solution Identification Based on Function-attribute Similarity	D. Daniel Sheu, Nai Cheng Teng
112	Research on the complexity of design process based on TRIZ	Jian Gao, Jianguang Sun
169	A critical review of Electric Vehicles industry: How to sustain the leader position through lean concepts in cleaner	Chi Ho LI, Hing Keung Lau
108	Resource Identification Method Based on Demand-Supply Thought Provoking Questions for Problem Solving	D. Daniel Sheu, Jealousy Hong, Raymond Lin

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2017/7/13 PM 15:30-17:30 [Session D -3] -ROOM- B643

Chair: Runhua Tan Co-Chair: Bing LV

ID	Paper Title	Author(s)
168	Innovative-driven Strategies for Growth Industries: A Review on Engaging Testing and Certification Industry	FANNY TANG
136	Effective strategy to promote and practice TRIZ and Design thinking in companies: findings and lessons learnt from Korean practices	Kyeongwon LEE
152	Innovative Design of a Smart Energy-Saving Extension Line	YU-GANG CHEN, KUO-HSUN YU, GUAN-WEI CHEN, TING-YI ZHU

## Poster paper

ID	Paper Title	Author(s)
125	TRIZ method for the feeding device of square baler design	Luo Jinhai, Wang Zhenhua, Zhang Ping, Li zhijie
128	The rain on the side window of the car blocked the driver's sight	Yang Zhao, Fusheng Yu
129	Innovative Design for Magnus effect of Unmanned Aerial Vehicle Based on TRIZ	Jiadong Zhang, Fusheng Yu
133	Analysis of Water-pump and Propeller Based on TRIZ	fusheng yu, haizhi guo
134	Innovative Design for Upstairs Equipment with Load Based on TRIZ	fusheng yu, haizhi guo
139	A Method and the Process Model of Functionality Innovative Design for Product Development	Jiangnan Liu, Weijian LU
C-156	多種方法集成的企業技術預見研究 Multiple methods of integrated business technology foresight study	劉闢, 陳舒, 孫琳琳, 吳楠 Chu Liu, Shu Chen, Linlin Sun, Nan Wu
C-157	基于功能分析的管理类问题解决流程 Management Problem Solving Process Based on Function Analysis	劉闢, 吳楠, 張曉明 Liu Chuang, Wu Nan, Zhang Xiao Ming
C-158	淺談資源分析在 TRIZ 中的應用及其重要性 Applications and importance of Resource analysis in TRIZ	張世彤, 許春芳, 孫琳琳 Zhang Shi Tong, Xu Chun Fang, Sun Lin Lin
C-159	基於 TRIZ 理論的嬰兒餐桌椅的改善與設計 Improvement and design of baby Dining chairs based on the theory of TRIZ	張世彤, 許春芳, 孫琳琳 Zhang Shi Tong, Xu Chun Fang, Sun Lin Lin
C-160	TRIZ 在产品体验设计课程教学体系创新中的应用 TRIZ Applications in Product experience design course system	孫曉楓, 趙新軍, 鐘瑩 Sun Xiao Feng, Zhao Xin Jun, Zhong Ying
C-161	应用 TRIZ 理论的高温水消防车灭火方式研究 TRIZ application of fire truck fire distinguishing using high temperature water	鐘瑩, 喬安瑩, 趙新軍, 孫曉楓 Zhong Ying, Qiao An Ying, Zhao Xin Jun, Sun Xiao Feng
C-171	基於 CEN/TS16555 之創新管理能力評估模型之研究	管孟忠, 陳其璜 Meng-Jong Kuan, CHEN CHI-HUANG