

2018 IEEE International Conference on Advanced Manufacturing (ICAM 2018)

**Yunlin, Taiwan
16-18 November 2018**



**IEEE Catalog Number: CFP18RPD-POD
ISBN: 978-1-5386-5610-5**

**Copyright © 2018 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP18RPD-POD
ISBN (Print-On-Demand):	978-1-5386-5610-5
ISBN (Online):	978-1-5386-5609-9

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

Table of Content

Editorial	III
Table of Content	IV
A Design of Wearable Goniometers for Measuring Carpal Angular Movement	1
<i>Shih-Miao Huang, Pei-Yu Gi, Pei-Ying Wu</i>	
Method for Concept Design; NT Extrapolation	5
<i>Eduardo Martinez Escobedo</i>	
EMPIRICAL MODELLING OF CUTTING FORCE COMPONENTS IN TURNING	7
<i>Ryabov Oleg, Seisuke Kano, Hiroyuki Sawada, Jonny Herwan</i>	
Analysis and Fabrication of Periodic Graphene-like Structures with Zinc Oxide Piezoelectric Material	11
<i>Zi-Gui Huang, Shen-Hsien Hu</i>	
Mouse operation data collection automation system using ESP32 and AppInventer	15
<i>Yu-Xiang Zheng, Ming-Chung Tang</i>	
Development of a fiber-laser-based frequency comb for precision dimensional metrology	18
<i>Yuri KANDA, Hiraku MATSUKUMA, Shaoqing YANG, Yuki SHIMIZU, Hajime INABA, Wei GAO</i>	
A Digital Evaluation System for Inclusions in Steel	20
<i>Chia-Sui Wang, Wesley Huang, Mark Yeh, Jou-Wei Lin</i>	
Theoretical calculation of the reading output from a micro thermal sensors for precision positioning	24
<i>Yuki Shimizu, Ayaka Ishida, Hiraku Matsukuma, Wei Gao</i>	
Angle measurement using a diffraction of optical frequency comb	26
<i>Kazuki Nakamura, Hiraku Matsukuma, Yuki Shimizu, Wei Gao</i>	

A compact two-axis Lloyd's mirror interferometer for scale grating fabrication	28
<i>Masanori MATSUNAGA, Kazuki MANO, Hiraku MATSUKUMA, Yuki SHIMIZU, Wei GAO</i>	
Measurement and uncertainty analysis of a precision V-shaped ceramic part	30
<i>Masami KOGURE, Hiraku MATSUKUMA, Ryo KOBAYASHI, Yuki SHIMIZU, Wei GAO</i>	
An optical frequency comb operating in the mid-infrared region for wide-range and high-precision optical sensor	32
<i>Yun ASUMI, Hiraku MATSUKUMA, Yuki SHIMIZU, Wei GAO</i>	
Crosstalk error analysis of a multi-degree-of-freedom surface encoder for a planar motion stage	36
<i>Ryo Ishizuka, Hiraku Matsukuma, Yuki Shimizu, Wei Gao</i>	
Effects of the MIG weld-brazing parameter on the lap-joint performance of aluminum alloy to galvanized steel sheet	40
<i>Hsuan-Liang Lin, Chien-Hang Lee, Hsin-Ya Chen, Fu-Jyun Nan</i>	
Study on a Vibration Test System for Bicycle Electric Attachments	44
<i>Yen-Chieh Mao, Li-Cheng Lin</i>	
An ultra-sensitive optical angle sensor for pitch deviation measurement of diffraction gratings	47
<i>Lue Quan, Hiraku Matsukuma, Xiuguo Chen, Yuki Shimizu, Wei Gao</i>	
Potential analysis of additive manufacturing technologies for fabrication of polymer tools for injection moulding – A comparative study	49
<i>Achim Kampker, Johannes Triebs, Bruno Alves (Ford), Sebastian Kawollek, Peter Ayvaz</i>	
A Framework for Implementation of 3D-printing of Manufacturing Equipment	53
<i>Kampker Achim, Triebs Johannes, Kawollek Sebastian</i>	
Influences of linear and angular compensation on volumetric accuracy of precision machine tools	57
<i>Lingtao Weng, Weiguo Gao, Dawei Zhang, Guangming Sun, Wenjie Tian, Teng Liu</i>	

Modeling for Locating Pin Adjustment on Fixtures to Improve Positioning Accuracy of Parts 61

Ying Liu, Yuwen Li, Xin Wen

Study on the Application of Information and Communication Technology in Intelligent Elderly Living Space 65

ZhongHui Lu, Pinrong He, Hung-Nien Hsieh, Chih-Yuan Ho

Study on the Application of Information and Communication Technology in Intelligent Elderly Living Space 69

ZhongHui Lu, Pinrong He, Hung-Nien Hsieh, Chih-Yuan Ho

Effects of Axial Jet-to-Wall Distance on Flow Behavior and Heat Transfer of a Wall Jet at Low Reynolds Number 73

Minh Duc Le, Ching Min Hsu, Navik Kholili, Shao Hsin Lu

Influence of Cycloidal Gear Linear Shape on Contact Equivalent Stress 77

Pei-Yu Wang, Chin-Chen Huang

Research on Spatial Characteristics and Mechanisms of Regional Innovation Capacity in Jiangsu Province, China 81

HAIYING XU, Wei-Ling Hsu, XINYI LU

Analysis on Scientific and Technological Innovation Capacity for the Yangtze River Economic Belt 85

HAIYING XU, Wei-Ling Hsu, TAOLIN ZHANG

Optical filters based on D-shaped single mode fibers with polymeric Bragg gratings 89

Li-Ling Chu, Yu-Wen Luo, Yu-Cheng Ye, Wei-Ching Chuang

Thermoforming of Woven Carbon Fiber Thermoplastic Composites 93

Po-Yuan Huang, Yi-Chen Tsai, Yu-De Chen, Shun-Fa Hwang

Fabrication of a polymeric optical filter based on an asymmetric Bragg coupler with liquid crystal 97

Yu-Wen Luo, Li-Ling Chu, You-Rang Chen, Wei-Ching Chuang

Automated Dual-probing System for Wafer-level Testing Based on the Integration of Visual Identification and Laser Sensing 101

Ya-Ting Huang, Rongshun Chen

Dip-drawing Process Characterization of Making High-aspect-ratio Polymeric Microneedles 105

Chieh-Cheng Yang, Kerwin Wang

Developing Low Cost and Smart Laser-based Paper Cutter based on Open Source 3D Printer 109

Cheng-Tiao Hsieh

Reduce the Correlation Phenomena over Massive-MIMO System by Deep Learning Algorithms 113

Joy Jong-Zong Chen, Kuan Long Lai

The Development of Smart Manufacturing and Cases Study in Taiwan 117

T. C. Chan

Development of Numerical Control Program Based on Mastercam Tool Path 119

Chen-Hua SHE, Jian-Da CHEN, Wen-Jie ZHUANG

An Effective Communication Performance Index for Advanced Metering Infrastructure 123

Chia-Wei Chao, Jen-Hao Teng, Bin-Han Liu, Wei-Hao Huang, Jih-Ching Chiu

Simulation of Granular Temperature of Abrasive Particles in the EKF-CMP System 127

Li-Shin Lu, Yu-Ming Lin, Chao-Chang A. Chen

Geometric Positioning Techniques Based on Tracking Algorithm for Indoor Dynamic Environments 131

Yang-Ke Lin, Yih-Shyh Chiou, Ting-Lan Lin

Investigating Multiple Quality Objectives for Surface Roughness and Dimensional Accuracy of Carbon Steel Manufactured by Turn-Mill Multitasking Machining 134

Wei-Tai Huang, Ting-Yi Lee, Jyh-Horng Chou

Integration of Master Cam and Ls -Dyna for the Single Point Incremental Process 138

Ching-Lun Li, Yung-Kuan Ni, Yuung-Hwa Lu

Robust the ESD Reliability by Drain-side Super-junctions for the UHV Circular nLDMOS 142

Shen-Li Chen, Pei-Lin Wu, Yu-Lin Jhou, Po-Lin Lin, Sheng-Kai Fan

Innovative Design Padlock Combined with Plastic and Metal- Plastic Structure for Padlock by Molding Flow Analysis 144

Teng-Hui Chen, Chun-Ta Huang

Prediction Model of Unit Consumption for Oilfield Water Injection Based on the Grain of Association Rule and Chaotic Time Series 148

TAN Chaodong, Feng Gang, Liu Ping, PENG Zhenhua, YANG Ruogu, Li Jingjia

Analysis of injection molding parameters for graphene/polypropylene composite material with thermal conductivity as quality objective 152

Ching-Been Yang, Wei-Chang Peng, Yan-Wen Huang, Hsiu-Lu Chiang

Establishment of a Groundwater Management Index for the Szuchung Creek Hot-Spring 155

Wei-Ping Chen, Jui-Teng Wang, Chi-Chuan Kan, Hung-I Lin

Diagnosis of heavy metal cross contamination in leaf of rice based on hyperspectral image : a greenhouse experiment 159

Shuang-Yin Zhang, Teng Fei, Yan-Hong Ran

Application of UVA in Soil and Water Conservation: Preparation of Planting Materials for UVA 163

Shih-Yi Fan, Ming-Fa Tsai, Liang-Hsing Chou, Yi-Ting Lai, Maw-Tien Lee

The design of a reminder device for placing shared bikes neatly based on attitude sensors 166

Jiabin Hu, Jingbing Li, Saqib Ali Nawaz

Application of IoT Technology in The Simple Micro-farming Environmental Monitoring 170

Chin-Feng Tsai, Ting-Wen Liang

Behavioral Classification of Drivers for Driving Efficiency Related ADAS Using Artificial Neural Network 173

Zheng-Jie Cheng, Lih-Wei Jeng, Kang Li

The Prototype of a Smart Underwater Surveillance System for Shrimp Farming 177

Ing-Jer Huang, Chin-Chang Hung, Shiann-Rong Kuang, Yun-Nan Chang, Kuan-Yu Huang, Chang-Ru Tsai, Kai-Lin Feng

Study on the Efficiency of Automatic Matching for Various Aerial Survey Marks 181

Hung-Lin Lin, Chien-Lun Huang, Zhi-Yuan Huang, Shun-Jie Jhang, Liang-Ting Wu

Comparison of Horizontal Precision of Various Aerial Survey Marks in Orthophoto Production 184

Hung-Lin Lin, Hsin-Yi Lee, Hung-I Huang, Kuo-Hsiang Tseng, Yi-Chan Tsai

Comparison the Plane Precision of UAS Aerial Survey Between Image Processing and GNSS Measuring Data 188

Tsung-Yi Lin, Jung-Fa Wang, Hung-Lin Lin, Cheng-Tsung Lee

Study on the dormitory public facilities management using BIM 191

Tsung-Yi Lin, Hsin-Yi Shih, Jia-Chang Huang, Yu-Lien Hou, Yun Yin Chiu, Yi-Xiu Lin

**Optimized Parameters on Enhanced Precision of Image Matching in UAS
Photogrammetry** 194

Hung-Lin Lin, Yu-Tuan Chou, Shao-Yi Hsia

**Integrating BIM and IoT technology in environmental planning and protection of urban
utility tunnel construction** 198

Chih-ming Wu, Hsin-lung Liu, Long-mao Huang, Jin-fa Lin, Ming-wei Hsu

Development of Intelligent Tourism Information System Based On Virtual Reality 202

Juin-Ling Tseng, Yan-Yi Jiang, Sheng-Jun Peng, Hsiao-En Wei

**Improvement of Surface Roughness in Electrical Discharge Machining by Using
Ultrasonic Auxiliary Electrode** 206

Shao-Yi Hsia

**Using a Cone Frustum Part in the Evaluation of Multiple Types of Five-Axis Machine
Tools with the Taguchi Method** 209

Han-Jui Chang

**The implementation of a smart microchips system to applications on the modern
medical applications** 213

Yue-Lin Hsieh, Yi-Chern Hsieh, Chih-Chieh Huang, Zhao Han

The Computation Study of Flow Fields for the Stretch Blow Molding Machine 216

Yi-Chern Hsieh, Hui-Fang Lin

**Fast evaluation of a linear scale for a linear encoder with a Fizeau interferometer and
stitching technique** 220

Xin Xiong, Hiraku Matsukuma, Xiuguo Chen, Yuki Shimizu, Wei Gao

The influence of different kinds of music on brainwave signals 223

Shao Kuo Tai, Yu Kai Lin

Pattern design of the platform for mixing and sorting by the magnetic principle 227

Yao-Tsung Lin, Chien-Sheng Huang, Yi-Ling Ye, Shi-Chang Tseng

Research on assembly deformation of machine tool guideway 231

Guangming Sun, Gaiyun He, Lingtao Weng, Yicun Sang, Dawei Zhang

The Influence of Needle Assembly Sliding of the Jetting Dispenser on the Characteristics of Blood Glucose Test Strip 235

Kun-Yong Kim, Ho Chang, Win-Der Lee, Yi-Fan Cai, You-Jia Chen

A Framework For Smart Manufacturing Systems Based On The Stakeholders' Value 239

Y. J. Qu, X.G. Ming, S. Q. Qiu, Z. W Liu, X.Y. Zhang, Z.T. Hou

Analysis and Design of Differential bevel gear 243

Pei-Yu Wang, Kuang-Lun Liu

Using Convolutional Neural Network for Vibration Fault Diagnosis Monitoring in Machinery 246

Chiao Wei Yeh, Rongshun Chen

A platform-independent communication framework for the simplified development of shop-floor applications as microservice components 250

Matthias Milan Strlijic, Tobias Korb, Timur Tasci, Erik-Felix Tinsel, Daniel Pawlowicz, Oliver Riedel, Armin Lechler

Development of the half-angle divergence metrology applied to the inner-layer exposure facility for PCB industry 254

Chia-Ming Jan, Cheng-Bang Huo

Dynamics Modeling and Parameter Identification of a Cooling Fan System 257

Chao-Chung Peng, Yung-I Lin

Gold Nanofilm in Optically-Induced Dielectrophoresis Chip for The Manipulation of Polystyrene Microparticles 261

Yue-Chang Tsai, Ju-Nan Kuo, Yong-Hang Hong

Research on Eco-friendly Solar Energy Generation in Taoyuan Pond 264

Lih-Yau Song, Rina Yadav, Hsin-Chun Liang

Supplier Selection for Manufacturing Industries 268

Chia-Nan Wang, Dinh-Chien Dang, Quoc-Quan Vu, Yu-Xiang Zeng

Design and Research of large pulse power ultrasonic guided waves excitation circuit 272

Shengrong LONG, Bangyuan HE, Yongyue Huang, Zhinong LI

Implementation of Automated Gluing and Assembly Workstation 276

Jeng-Dao Lee, Chia-Ying Hsieh, Ying-Jie Jhao, Chen-Huan Chang, Cheng-Yi Li, Wei-Chuan Li

Intelligent Prediction Platform of Lathe Machine Based on Back Propagation Neural Network 280

Wen-Yang Chang, Sheng-Jhih Wu, Bo-Shang Lin

Real-Time Collision Avoidance for Five-Axis CNC Machine Tool Based on Cyber-Physical System 284

Wen-Yang Chang, Bo-Yao Hsu, Jia-Wei Hsu

The Applications of Facial Expression Recognition in Human-computer Interaction 288

Huan-Huan Wang, Jing-Wei Gu

Development of the half-angle divergence metrology applied to the inner-layer exposure facility for PCB industry 292

Chia-Ming Jan, Cheng-Bang Huo

Design and Fabrication of Innovative Optical Head for Picosecond Laser Machining Applied on LED Sapphire Subtract Ablation 295

Chia-Ming Jan, Chou, Chen-Bin

De-tumbling Control of a CubeSat 298

Wen-Chi Lu, Lili Duan, Yi-Xian Cai

Design and Test of Hydrostatic Built-in Spindle Compensated by Orifice Restrictors 302

Yu-Wei Liu, Shih-Chieh Lin, Chun-Hsien Chang, Pei-Shiuang Lan

Parameters Optimum for the Face Milling Cutter to Cut the Acrylic	306
<i>Dai-Jia Juan</i>	
Design and Development of an Operational Performance Index for Power Generation Systems	310
<i>Chia-Hung Hsieh, Shu-Wei Liu, Yung-Ching Huang, Wei-Min Lin, Yu-Hung Lin, Jen-Hao Teng, Wei-Hao Huang</i>	
The Design of an Automatic Aircraft Instrument Dehumidification Control System	314
<i>Ming-Sen Hu</i>	
ESD-Immunity Influence of 60-V pLDMOS by Vertical Floating Polysilicons on the Drain-side STI	318
<i>Shen-Li Chen, Yu-Lin Jhou, Pei-Lin Wu, Sheng-Kai Fan, Po-Lin Lin</i>	
Measuring Network Centrality in Petri Nets	320
<i>Reggie Davidrajuh, Chunming Rong</i>	
River Width Measurement Using Sentinel-1 Satellite Data	324
<i>Wei-Ling Hsu, Kuan-Tsung Chang, Liang-Cheng Chang, Chih-Tien Wang</i>	
Airflow Patterns in the Airway Passage of Nasal Obstruction Patients	328
<i>Yue-Lin Hsieh, Yi-Chern Hsieh, Zhao Han, Hui-Fang Lin</i>	
Study on the Application of Data Mining Method in Enterprise Financial Management	332
<i>Jiajin Liu, Zhigang Huang</i>	
Study of Indoor exhibitions using BEACON's Mobile Navigation	335
<i>Ding-Yu Liu, Cheng-Yu Hsieh</i>	
The Indoor Air Quality of Karaoke Club's Hall and Box	338
<i>Jia-Wei Chen, Wen-Cheng Shao</i>	

Study on the Education and Learning Path for Construction Engineering Cost Professionals in Science, Technology, Engineering and Mathematics 342

Liuqun Dong, Lizhi Cui, Wei-Ling Hsu

Using Interpretive Structural Modeling to Analyse the Key Factors in Small-Scale Construction Project Management in Taiwan 346

Wei-Ling Hsu, Hsin-Lung Liu

Preparation of stable Ni₃S₂ superhydrophobic surface via hydrothermal reaction 350

Xiaoli Yin, Sirong Yu, Jinhui Hu

Advance in Research on Modification of Polyurethane Coating 354

LYU Ping, CHE Kaiyuan, MA Mingliang, JING Xiaofei, HUANG Weibo

A study on the design factors of the bridal hairstyling by Analytic Hierarchy Process 359

Shu-Ping Chiu, Ya-Chun Wang, Wei-Cheng Chu

Theoretical investigation on measurement range of a femtosecond laser chromatic confocal probe by utilizing side-lobe of axial response 362

Chong Chen, Hiraku Matsukuma, Ryo Sato, Xiuguo Chen, Yuki Shimizu, Wei Gao

Material Optimization Method in 3D Printing 365

Md. Hazrat Ali, GazizYerbolat, ShynggysAmangeldi

A Novel Method in the Diagnosis of the Assembly Conditions of Gears 369

Shinn-Liang Chang, Pei-Yu Wang, Zong-Hua Yang

Preparation of TiO₂/Single Layer Grapene Composite Photoanodes for Dye-Sensitized Solar Cells 373

Jyun-Jia Wang, Bao-Wen Wang, Tian-Chiuuan Wu, Jenn-Kai Tsai, Teen-Hang Meen

State of Charge Estimation for Lithium-ion Battery using Recurrent Neural Network 376

Van-Tsai Liu, Yi-Kai Sun, Hong-Yi Lu, Sun-Kai Wang

A Measurement System for the Performance Evaluation of Roots Blowers 380

Rong-Yuan Jou, Wen-Hsin Huang

Composite Materials Property Determination by Rule of Mixture and Monte Carlo Simulation 384

GazizYerbolat, ShynggysAmangeldi, Md. Hazrat Ali, Nazym Badanova, Asset Ashirbeok, Gulzhahan Islam

3D Scanning System of Structured Light for Aiding Workpiece Position of CNC Machine Tool 388

Wen-Yang Chang, Jia-Wei Hsu, Bo-Yao Hsu

An Empirical study on planning and design collaboration of urban railway construction bridge and culvert project based on BIM 392

Chih-ming Wu, Chui-te Chiu, Jin-fa Lin

Optimization of cooling conditions and cutting parameters during hard milling of AISI H13 steel by using Taguchi method 396

The-Vinh Do, Ngoc-Chien Vu, Quoc-Manh Nguyen

A FIS-based Domestic Milling Machine PHM System Considering Multi-speed Frequency Variation 399

Shang-Chih Lin, Chuan-Hsiang Su, Yu Tsao, Shun-Feng Su, Hong-Yuan Mark Liao, Yennun Huang

Design and implementation of automatic following wheelchair 403

Fengming Qin, Jingbing Li, Saqib Ali Nawaz

Recognition of Pyralidae Insects with Unmanned Monitoring Robot Based on Histogram Reverse Mapping and Invariant Moment 407

Zhuhua Hu, Boyi Liu, Yaochi Zhao, Mengxing Huang, Yong Bai, Fusheng Lin

Evaluate Machine Learning Models Used for Upscaling Surface Ocean CO₂ Measurements 411

Jiye ZENG, Zheng-Hong TAN

Fractal Characteristics of Particle Size on Debris Flow 415

Tung-Chiung Chang, Chen Wu, Yuan-Min Chu

A Study of Disaster Prevention Education for Senior Vocational High School Sustainable Campus in Taiwan 418

Yuan-Min Chu, Tung-Chiung Chang, Chien-Cheng Tsai, Hung-Lin Lin

Study of the Reducing Carbon Emission by Using Hot Spring Eggs 422

Jung-Wei Chen, Chin-Hung Kuo, Cheng-Haw Lee, Bi-Wen Lee

Intelligent Management Design on Air Conditioning Nonlinear Group Load 425

ZHU Jian-hong, MENG Bang-bang, Gu Ju-ping, HUANG Qiong, Chen Ze-yu

Evaluation of Building Yacht Wharf with Fishing Port 430

Tung-Chiung Chang, Chun-Lin Ho, Li-Chuan Lien

Study on Educational Virtual Reality Implementation Using Knowledge-Based Engineering 433

Yu-Tuan Chou, Bi-Wen Lee, Hsin-Yi Shih

Automatic and Accurate Prediction of Key Water Quality Parameters Based on SRU Deep Learning in Mariculture 437

Juntao Liu, Chuang Yu, Zhuhua Hu, Yaochi Zhao, Xin Xia, Zhigang Tu, Ruoqing Li

Application of Matter Element Extension Model in the Design of Pet Nail Clippers 441

Yanqun Yang, Ming-Hui Shao

Abrasion resistance and color retention assessment of porous concrete modified by PVA emulsion/PP fiber 447

Lei Yang, Yanlin Li, Lingchao Lu, Yongbo Huang, Piqi Zhao

Effect of polymer to cement ratio on seawater corrosion resistance of polymer modified cementitious coatings 451

Chuankui Sun, Honghua Liu, Lele Liu, Piqi Zhao, Yongbo Huang, Lingchao Lu

The forward kinematics for the HR1-NFU humanoid robot	455
<i>Kuang-Chyi Lee, Ping-Yen Chiang, Ha-Anh Truong</i>	
Application of Computer Analysis on Plastic Forming Behavior of Extrusion	459
<i>Shao-Yi Hsia, Yu-Tuan Chou</i>	
Research on target recognition of underwater robot	463
<i>Ping Liu, YANG Hongbo, YuZhen Hu, JingNan Fu</i>	
Identification of pedestrian attributes based on video sequence	467
<i>Jia Xu, HongBo Yang</i>	
A CNN-RNN Neural Network Join Long Short-Term Memory For Crowd Counting and Density Estimation	471
<i>Jingnan Fu, Hongbo Yang, Ping Liu, Yuzhen Hu</i>	
Design of a Miniaturized UHF RFID Tag Antenna	475
<i>Hong-Xia Chen, Zhong-Hua Ma</i>	
The Analysis of Animation Narration for Short Animation - The Short Film: CARN	477
<i>Yuh-Shihng Chang, Yan-Hong Chen</i>	
The User Research of Interactive APP Design for 2016 Yilan Green Expo Food-Ethics Museum	481
<i>Yu-Shing Chang, Yi-Chou Tsai, Tsun-Hsien Wang</i>	
Author Index	486