

Pre-Proceedings

---

# THE 8TH IEEE INTERNATIONAL CONFERENCE ON APPLIED SYSTEM INNOVATION 2022

---

International (Taiwanese)  
Institute of Knowledge  
Innovation (iTIKI)

<http://2022.icas-i-conf.net/>  
email: [office.icas-i@gmail.com](mailto:office.icas-i@gmail.com)

## **Editors:**

Artde Donald Kin-Tak Lam  
Liang-Wen Ji  
Siu-Tsen Shen  
Stephen Prior  
Sheng-Joue Young

## **No one can fully grasp the truth.**

---

**April 21-23, 2022, Sun Moon Lake, Nantou, Taiwan.**





# **2022 IEEE International Conference on Applied System Innovation (IEEE ICASI 2022)**

**Sun Moon Lake, Nantou, Taiwan.  
April 21-23, 2022.**

## **Organized by**

Fujian University of Technology  
National Quemoy University  
National Cheng Kung University  
National United University  
National Sun Yat-Sen University  
Yuang Ze University  
National Kaohsiung University of Science & Technology  
National Formosa University  
Xi'An Technological University  
Kun Shan University  
National University of Tainan  
National Taiwan Normal University  
National Penghu University of Science & Technology  
Southern Taiwan University of Science & Technology  
University of the Ryukyus  
Kongju National University  
Hannam University  
St. Petersburg Royal Peter Polytechnic University  
China University of Petroleum  
Kyushu Institute of Technology  
Institute of Electrical and Electronics Engineers (IEEE)  
IEEE Tainan Section  
IEEE Tainan Section Sensors Council (IEEE TSSC)  
International (Taiwanese) Institute of Knowledge Innovation (iTIKI)  
Fujian Information Industry Association  
PIN-WEI SCIENCE AND TECHNOLOGY CO., LTD.



# **2022 IEEE International Conference on Applied System Innovation (IEEE ICASI 2022)**

**Sun Moon Lake, Nantou, Taiwan.  
April 21-23, 2022.**

**Copyright:**

Proceedings of The 2022 IEEE International Conference on Applied System Innovation (IEEE ICASI 2022) Published by International (Taiwanese) Institute of Knowledge Innovation (iTIKI)

**IEEE Catalog Number:**

## “ Welcome

I am so pleased that the International (Taiwanese) Institute of Knowledge Innovation (iTIKI) are hosting The **2022 International Conference on Applied System Innovation (IEEE ICASI 2022)** in the beautiful city of Sun Moon Lake, Nantou, Taiwan, and I would like to express my sincere appreciation to all the participants for taking their time to attend this meeting, especially speakers and moderators for their valuable inputs and contributions to today's conference. On behalf of organizing committee, I would like to welcome all of you to Sun Moon Lake for the IEEE ICASI 2022. It is my great pleasure in declaring this conference open.

The conference will provide a unified communication platform for researchers in a wide area of topics from **information technology, innovation design, communication science & engineering, industrial design, creative design, applied mathematics, computer science, design theory, cultural & creative research, electrical & electronic engineering, mechanical & automation engineering, green technology & architecture engineering, material science** and other related fields. Professionals from industry, academia and government are encouraged to discourse on research and development, professional practice, business and management in the information, innovation, information, communication and engineering fields are welcome to participate in the IEEE ICASI 2022. This conference enables interdisciplinary collaboration between science and technologists in the academic and industrial fields as well as networking internationally.

The conference has received 300+ submitted papers, whereby 200+ papers have been selected by the committees to be included within the IEEE ICASI 2022 proceedings. These papers on various topics are divided into 22 sessions (14 Regular Sessions, 8 Invited Sessions) and presented in several parallel sessions in the conference. To all members of the Technical and Organizing Committees, we would like to take this opportunity to thank all of them for their tremendous efforts to organize this conference successfully.

I would like to express my sincere thanks to all the committee members for organizing the conference and program. And I expressed gratitude to the support of the International (Taiwanese) Institute of Knowledge Innovation (iTIKI). The sponsors of Fujian University of Technology, National Quemoy University, National Cheng Kung University, National United University, National Sun Yat-Sen University, Yuang Ze University, National Kaohsiung University of Science & Technology, National Formosa University, Xi'An Technological University, Kun Shan University, National University of Tainan, National Taiwan Normal University, National Penghu University of Science & Technology, Southern Taiwan University of Science & Technology, University of the Ryukyus, Kongju National University, Hannam University, St. Petersburg Royal Peter Polytechnic University, China University of Petroleum, Kyushu Institute of Technology, Institute of Electrical and Electronics Engineers (IEEE), IEEE Tainan Section, IEEE Tainan Section Sensors Council (IEEE TSSC), International (Taiwanese) Institute of Knowledge Innovation (iTIKI), and many other companies are also greatly appreciated. I hope you will find the papers presented at IEEE ICASI 2022 critical and stimulating to your work. Also, I hope that all the attendees will have an enjoyable stay in Sun Moon Lake.



Professor Artde Donald Kin-Tak Lam, Ph.D  
Program Chairman of IEEE ICASI 2022

Deputy Dean of Design School, Fujian University of Technology



## **Topics**

### **Regular**

- A. Material Science & Engineering
- B. Communication Science & Engineering
- C. Computer Science & Information Technology
- D. Electrical & Electronic Engineering
- E. Mechanical & Automation Engineering
- F. Green Technology & Architecture Engineering
- G. Internet & IOT Technology
- H. Applied Mathematics
- I. Management Science
- J. Innovation Design & Creative Design
- K. Industrial Design & Design Theory
- L. Cultural & Creative Research
- M. Multimedia Art and Design Foundation (MADF) & Taiwan International Invention and Design Fair (TIIDF)
- N. Others

### **Invited IEEE ICASI 2022**

- IV1. Renewable Energy Technologies in Power Systems
- IV2. Technology Innovation for Smart Life
- IV3. Railway Vehicle System and Railway Technology
- IV4. AI Application in Optical Engineering
- IV5. Novel Technologies for Electrical and Mechatronic Engineering
- IV6. Architecture and Naval Mechatronic Engineering
- IV7. Frontiers in Material, Device and Energy
- IV8. Offshore Wind Power



## Contents

- A-3 Welcome
- A-4 Topics
- A-5 Contents
- A-6 Organizers & Sponsors
- A-7 Honorary General Chairs
- A-8 General Chairs & General Co-Chairs
- A-9 Technical Committee Chairs & International Liaison Chairs
- A-10 Program Committee
- A-11 Keynote Speaker
- A-13 Executive Committee
- A-16 Expert Committee
- A-20 Guidelines
- A-21 Conference Agenda
- A-22 Oral Session Schedule
- A-23 Poster Session Schedule
- A-24 On-line Oral & Poster Session Schedule
- A-25 Session Chairs
- A-26 List (IEEE ICASI 2022)
  
- B-1 Abstract of IEEE ICASI 2022 (e-Print)



## **Organizers**

Fujian University of Technology  
National Quemoy University  
National Cheng Kung University  
National United University  
National Sun Yat-Sen University  
Yuang Ze University  
National Kaohsiung University of Science & Technology  
National Formosa University  
Xi'An Technological University  
Kun Shan University  
National University of Tainan  
National Taiwan Normal University  
National Penghu University of Science & Technology  
Southern Taiwan University of Science & Technology  
University of the Ryukyus  
Kongju National University  
Hannam University  
St. Petersburg Royal Peter Polytechnic University  
China University of Petroleum  
Kyushu Institute of Technology  
Institute of Electrical and Electronics Engineers (IEEE)  
IEEE Tainan Section  
IEEE Tainan Section Sensors Council (IEEE TSSC)  
International (Taiwanese) Institute of Knowledge Innovation (iTIKI)

## **Sponsors**

Fujian Information Industry Association  
PIN-WEI SCIENCE AND TECHNOLOGY CO., LTD.  
Fuzhou Cross-Strait Industrial Design Creative Park  
Kaoke ( Fujian ) Industrial Design Co., Ltd.





## **Honorary General Chairs**

Prof. Shoou-Jinn Chang, National Cheng Kung University

Prof. Yan-Kuin Su, National Cheng Kung University

Prof. Huann-Ming Chou, Vice President of Kun Shan University

Prof. Ji-Hwei Horng, Vice President of National Quemoy University

Prof. Ching-Ting Lee, Vice President of Yuan Ze University

Prof. Yu-Cheng Lin, National Cheng Kung University

Prof. Rong-Fong Fung, Vice President of National Kaohsiung University of  
Science and Technology

Prof. Chun-Yen Chang, National Taiwan Normal University

Prof. Ming-Chuang Ho, National Yunlin University of Science and Technology

Prof. Jui-Che Tu, National Yunlin University of Science and Technology

Prof. Xing Tong, President of Fujian University of Technology

Prof. Guomai Liu, Vice President of Fujian University of Technology



## **General Chairs**

Prof. Artde Donald Kin-Tak Lam, Fujian University of Technology  
Prof. Liang-Wen Ji, National Formosa University  
Prof. Te-Hua Fang, National Kaohsiung University of Science and Technology  
Prof. Stephen Prior, The University of Southampton  
Prof. Su-Hua Yang, National Kaohsiung University of Science and Technology  
Prof. Siu-Tsen Shen, National Formosa University  
Prof. Jenn-Kun Kuo, National Sun Yat-Sen University  
Prof. Yaw-Shyan Fuh, National University of Tainan  
Prof. I-Tseng Tang, National University of Tainan  
Prof. Chang-Tzuoh Wu, National Kaohsiung Normal University  
Prof. Jun-Dar Hwang, National Chiayi University  
Prof. Shi-Chang Tseng, National Yunlin University of Science and Technology  
Prof. Heng-Sheng Lin, National Kaohsiung University of  
Science and Technology  
Prof. Cheng-Tang Pan, National Sun Yat-Sen University

## **General Co-Chairs**

Prof. Sheng-Joue Young, National United University  
Prof. Yu-Jen Hsiao, Southern Taiwan University of Science and Technology  
Prof. Fu-Cheng Wang, National Taiwan University  
Prof. Cheng-Hsing Hsu, National United University  
Prof. Hsi-Wen Yang, National United University  
Prof. Cheng-Mu Tsai, National Chung Hsing University  
Prof. Yeou-Jiunn Chen, Southern Taiwan University of  
Science and Technology  
Prof. Kuang-Chyi Lee, National Formosa University  
Prof. Ying-Shieh Kung, Southern Taiwan University of Science and Technology  
Prof. Yih-Ran Sheu, Southern Taiwan University of Science and Technology  
Prof. Ming-Chih Chen, National Kaohsiung University of  
Science and Technology  
Prof. Chun-Hung Lai, National United University  
Prof. Yuh-Ping Chang, Kun Shan University  
Prof. Yue Shen, China University of Petroleum  
Prof. Kuo-Hsun Wen, Fujian University of Technology



## Technical Committee Chairs

Prof. Chih-Ta Yen, National Taiwan Ocean University  
 Prof. Walter Water, National Formosa University  
 Prof. Yong-Nong Chang, National Formosa University  
 Prof. Ying-Jr Ding, National Formosa University  
 Prof. Feng-Tsai Weng, National Formosa University  
 Prof. Yee-Shin Chang, National Formosa University  
 Prof. Yung-Ming Kuo, National Formosa University  
 Prof. Chang-Ren Chen, Kun Shan University  
 Prof. Ping-Chuan Chang, Kun Shan University  
 Prof. Hon Kuan, Southern Taiwan University of Science and Technology  
 Dr. Steve Yeng, Sunway Healthcare System Co.  
 Prof. Hui-Jen Chuang, Kao Yuan University  
 Prof. Paul Juinn-Bing Tan, National Penghu University of  
     Science and Technology  
 Prof. Ming-Hung Hsu, National Penghu University of Science and Technology  
 Prof. Ko-Wei Weng, National Quemoy University  
 Prof. Chin-Tan Lee, National Quemoy University  
 Prof. Yu-Feng Huang, Xiamen University

## International Liaison Chairs

Prof. Ajit Khosla, Yamagata University, Japan  
 Prof. Fatih Taşar, Gazi Üniversitesi, Turkey  
 Prof. Jae-Woong Kim, Kongju National University, South Korea  
 Prof. Hee-Min Sa, Hannam University, South Korea  
 Prof. Seungwan Roh, Dankook University, South Korea  
 Prof. Jose Metrolho, Escola Superior de Tecnologia de Castelo Branco, Portugal  
 Prof. Mike Bradley, University of Cambridge, UK  
 Prof. John Wood, Goldsmiths College, University of London, UK  
 Prof. Anthony Mileham, University of Bath, UK  
 Prof. Ashley Hall, Royal College of Art, UK  
 Prof. Eshaa Alkhalifa, Royal University for Women, Bahrain  
 Prof. Ming Cheung, The University of Adelaide, Australia



## **Program Committee**

Prof. Pi-Chuen Tsai, National Formosa University  
Prof. Po-Hsun Lei, National Formosa University  
Prof. Day-Shan Liu, National Formosa University  
Prof. Wen-Hsiang Hsieh, National Formosa University  
Prof. Yu-Fen Chen, National Formosa University  
Prof. Jie-Tong Zou, National Formosa University  
Prof. Chih-Ming Lin, National Taitung University  
Prof. Jui-Ming Hsu, National United University  
Prof. Cheng-Liang Hsu, National University of Tainan  
Prof. Shih-Chang Shei, National University of Tainan  
Prof. Jia-Sheng Hu, National University of Tainan  
Prof. Yu-Pei Huang, National Quemoy University  
Prof. Shuhn-Shyurng Hou, Kun Shan University  
Prof. Lung-Chuan Chen, Kun Shan University  
Prof. Ming-Shyan Wang, Southern Taiwan University of  
    Science and Technology  
Prof. Pei-Jarn Chen, Southern Taiwan University of Science and Technology  
Prof. Kuo-Kuang Fan, National Yunlin University of Science and Technology  
Prof. Xiao-Jing Yu, Fuzhou University  
Prof. Xiao-Yu Huang, Fuzhou University  
Prof. Xiao-Mei Huang, Fuzhou University  
Prof. Ye Yuan, Fuzhou University  
Prof. Ting-Cheng Chang, Ningde Normal University  
Prof. Martin Woolley, Coventry University  
Prof. Brian Davies, Imperial College  
Prof. Yu Dong, Curtin University

## “ Keynote Speaker



**Topic: Sacred Mountain of Taiwan (護國神山)  
– Semiconductor industry in Taiwan**

**Prof. Shoou-Jinn Chang**

Chair Professor at National Cheng Kung University (NCKU), Tainan, Taiwan

Deputy Director of Advanced Optoelectronic Technology Center (AOTC), NCKU

IEEE Fellow, SPIE Fellow, and OSA Fellow

**Prof. Shoou-Jinn Chang** is currently a Chair Professor at National Cheng Kung University (NCKU), Tainan Taiwan. From August 2008 to July 2011, he was the Director of the Institute of Microelectronics, NCKU. From February 2006 to January 2011, he was the Deputy Director of the Center for Micro/Nano Science and Technology, NCKU.

His current research interests include semiconductor physics, optoelectronic devices, and nanotechnology. So far he has published near 1000 SCI journal papers. He is a Fellow of the Optical Society of America (OSA), the International Society for Optical Engineers (SPIE) and Institute of Electrical and Electronics Engineers (IEEE). He received the Outstanding Research Award from the National Science Council, Taiwan, in 2004 and 2014.



## Keynote Speaker



**Topic: The Development and Applications of Third Category of Semiconductors**

**Prof. Yan-Kuin Su**

Honorary Chair Professor at National Cheng Kung University (NCKU), Tainan, Taiwan

Dean of Academy of Innovative Semiconductor and Sustainable Manufacturing, NCKU

IEEE Life Fellow, SPIE Fellow, and OSA Fellow

**Prof. Yan-Kuin Su** is currently a Dean of Academy of Innovative Semiconductor and Sustainable Manufacturing at National Cheng Kung University (NCKU). He is also a Director of Green Energy Technology Research Center, supported by Ministry of Education Taiwan. He even served as President of KSU from 2007 to 2018. He also even worked as Chairman of Department of Electrical Engineering NCKU from 1989 to 1993. From 1995 to 1998 and 2001 to 2007 he served as Dean of Research and Development and Dean of Academic Affairs, NCKU respectively.

His research interests are in the semiconductor and optoelectronic devices. So far he has published own 750 SCI journal papers and got over 80 patents in Taiwan and United States. He is an IEEE Life Fellow since 2018 and IEEE Fellow in 2007 for great contributions to optoelectronics and nanophotonics research and education.

He is also a SPIE Fellow since 2012 and an OSA Fellow since 2013. In 1993, he was a visiting Professor in Stuttgart University, Germany, a member of technical staff (MTS) in AT&T Bell Laboratories, US in 1986, and an Adjunct Professor of State University of New York, Binghamton, US during 1991~1997. He has got many prizes and medals during his research career including four times of excellent research awards from National Science Council (NSC), Taiwan.

## “ Executive Committee



### General Chairman

#### Prof. Artde Donald Kin-Tak Lam, Ph.D

Professor & Deputy Dean of Design School & Straits College of Engineering, Fujian University of Technology.

Secretary-General of International (Taiwanese) Institute of Knowledge Innovation (iTIKI)

Dr. Artde D.K.T. Lam received the B.S. degree in mechanical engineering from National Cheng Kung University (NCKU), Tainan, Taiwan, in 1987, and the Ph.D. degree in mechanical engineering (in field of mechanical design) from National Sun Yat-Sen University (NSYSU), Kaohsiung, Taiwan, in 1993. Currently, he is a Professor and the Deputy Dean & academic leader of the School of Design, Fujian University of Technology, Fuzhou, P.R. China. His current research interests include nanotechnology, innovation design, creative design and Fractal Theory.



### General Chairman

#### Prof. Stephen D. Prior, Ph.D

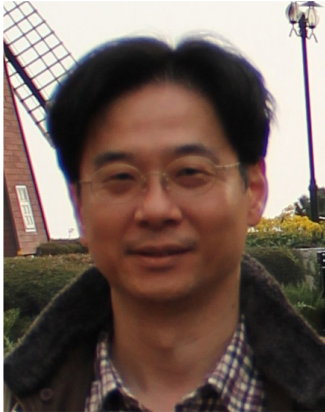
Faculty of Engineering and the Environment, Aeronautics, Astronautics and Computational Engineering, The University of Southampton, UK.

Fellow & Honorary President, International (Taiwanese) Institute of Knowledge Innovation (iTIKI).

Dr. Prior is a drone expert, engineer and educationalist who leads a multidisciplinary research group at the University of Southampton. His innovative work on drone design builds on his personal experience as an engineer and scientist. Stephen has built an unorthodox and creative team of aeronautical engineers, design engineers and robotic experts. Stephen has an international profile as an academic and conference chair. He publishes widely and speaks frequently at national and international events. He is especially interested in collaborative research at the intersections between traditional disciplinary boundaries and brings his considerable knowledge and insight to thinking on unmanned systems and the future of aircraft.



## Executive Committee



**General Chairman**  
**Prof. Liang-Wen Ji, Ph.D**

Professor, Institute of Electro-Optical and Materials Science, National Formosa University.

Fellow & Vice President of International (Taiwanese) Institute of Knowledge Innovation (iTIKI)

Dr. Liang-Wen Ji received the B.S. degree in physics, the M.S. degree in material science, and the Ph.D. degree in electrical engineering from National Cheng Kung University (NCKU), Tainan, Taiwan. In 2005, he became an Associate Professor with the Institute of Electro-Optical and Materials Science, National Formosa University (NFU), Yunlin, Taiwan, and was promoted to Full Professor in 2007. His current research interests include semiconductor physics, optoelectronics, and nanotechnology. He is a iTIKI Fellow. He is also a member of IEEE.



**General Chairman**  
**Prof. Siu-Tsen Shen, Ph.D**

Professor, Department of Multimedia Design, National Formosa University.

Council Member & Deputy Secretary-General, International (Taiwanese) Institute of Knowledge Innovation (iTIKI).

Dr. Siu-Tsen Shen has studied widely, gaining her Master degree in Industrial Design Research from the Design Academy of Eindhoven, and her PhD in Design from Goldsmiths College, University of London. She has been a visiting professor at UCL and Middlesex University, UK and is currently a Professor in Multimedia Design at the National Formosa University. Her research interests lie in the areas of HCI, User-Centred Design, Cross-Cultural Research, User Interface Design, and Design Team Formation using Personality Type. She has taught on a number of different programmes including Introduction to Multimedia Design, Creative Thinking & Design Methods, Cognitive Psychology and Emerging Technology. She is an associate editor in Journal of Cultural and Creative Industries Research since 2011.



## Executive Committee



### **Honorary General Chairman** **Prof. Shoou-Jinn Chang, Ph.D**

Chair Professor, Department of Electrical Engineering,  
National Cheng Kung University

Fellow & President, International (Taiwanese) Institute of  
Knowledge Innovation (iTIKI)

Dr. Shoou-Jinn Chang received the B.S. degree from the National Cheng Kung University (NCKU), Tainan, Taiwan in 1983, the M.S. degree from the State University of New York, Stony Brook in 1985 and the Ph.D. degree from the University of California, Los Angeles in 1989, all in electrical engineering. From 1989 to 1992, he was a Research Scientist at Nippon Telegraph and Telephone (NTT) Basic Research Laboratories, Musashino, Japan. He joined the Department of Electrical Engineering, NCKU in 1992 as an Associate Professor, where he was promoted to Full Professor in 1998. Professor Chang is the recipient of the outstanding research award from the National Science Council, Taiwan in 2004. He is an IEEE Fellow, an OSA Fellow, an SPIE Fellow and an iTIKI Fellow..



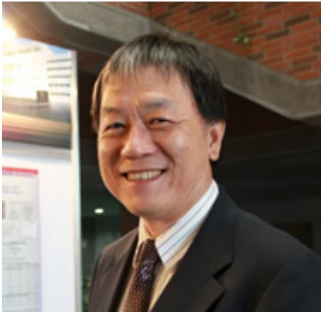
### **Award Chairman** **Prof. Sheng-Joue Young, Ph.D**

Associate Professor, Department of Electronic  
Engineering, National United University

Council Member & Deputy Secretary-General,  
International (Taiwanese) Institute of Knowledge  
Innovation (iTIKI)

Dr. Sheng-Joue Young received his B.S. degree from Department of Physics, National Changhua University of Education, Changhua, Taiwan in 2003, M.S. and Ph.D. degree from Institute of Electro-Optical Science and Engineering and Institute of Microelectronics, National Cheng Kung University (NCKU), Taiwan in 2005 and 2008, respectively. He became an Associate Professor with the Department of Electronic Engineering, National United University, Taiwan. His current research interests include semiconductor physics, optoelectronic devices and nanotechnology. He has published more than 100 SCI and EI papers in recent years.

## “ Expert Committee



**Name:** Yu-Cheng Lin, Distinguished Professor of the Department of Engineering Science, National Cheng Kung University, Tainan, Taiwan  
Fellow of the Royal Society of Chemistry; Fellow of the International Society for Optics and Photonics (SPIE); Fellow of the Institution of Engineering and Technology (IET)

**Educations:** Ph.D. in Electrical Engineering from the University of Illinois at Chicago

**Research:** MEMS, biotechnology

**E-mail:** yuclin@mail.ncku.edu.tw



**Name:** Huann-Ming Chou, Professor/Vice President/Dean of College of Engineering, Kun Shan University

**Educations:** Ph.D., Mechanical Engineering, National Cheng Kung University, Taiwan

**Research:** Thermal Science, Energy Technology

**E-mail:** hmchou@mail.ksu.edu.tw



**Name:** Te-Hua Fang, Chair Professor/Chair of Department of Mechanical Engineering, National Kaohsiung University of Science and Technology; IET Fellow, CSME Fellow

**Educations:** Ph.D., Mechanical Engineering, National Cheng Kung University, Taiwan

**Research:** Mechanical Engineering, Nanotechnology

**E-mail:** fang@nkust.edu.tw



**Name:** Yaw-Shyan Fu, Professor of Department of Greenergy, National University of Tainan

**Educations:** Ph.D., Department of Chemistry of National Chung Cheng University, Taiwan

**Research:** Nanomaterials, Green energy

**E-mail:** ysfu@mail.nutn.edu.tw



**Name:** I-Tseng Tang, Professor of Department of Greenergy, National University of Tainan

**Educations:** Ph.D., Institute of Microelectronics of National Cheng Kung University, Taiwan

**Research:** Green energy, Energy electronmechanical System

**E-mail:** tit@mail.nutn.edu.tw

## “ Expert Committee



**Name:** Su-Hua Yang, Professor of Department of Electronic Engineering, National Kaohsiung University of Science and Technology

**Educations:** Ph.D., Department of Electrical Engineering of National Cheng Kung University, Taiwan

**Research:** Nanomaterials, Optoelectronic device

**E-mail:** shya@nkust.edu.tw



**Name:** Chih-Ta Yen, Professor of Department of Electrical Engineering, National Taiwan Ocean University

**Educations:** Ph.D., Department of Electrical Engineering of National Cheng Kung University, Taiwan

**Research:** Machine Learning, Deep Learning, Communication System and Embedded System Design

**E-mail:** ctyen@mail.ntou.edu.tw



**Name:** Ing-Jr Ding, Professor of Department of Electrical Engineering, National Formosa University

**Educations:** Ph.D., Department of Computer Science and Information Engineering, National Chiao Tung University, Taiwan

**Research:** Speech Processing and Recognition, Artificial Intelligence, Multimedia Technique

**E-mail:** ingjr@nfu.edu.tw



**Name:** Yeou-Jiunn Chen, Professor of Department of Electrical Engineering, Southern Taiwan University of Science and Technology

**Educations:** Ph.D., Department of Computer Science and Information Engineering, National Cheng Kung University, Taiwan

**Research:** Speech communication assistive technology, Biomedical signal processing, AI

**E-mail:** chenyj@stust.edu.tw



**Name:** Jun-Dar Hwang, Distinguished Professor of Department of Electrophysics, National Chiayi University

**Educations:** Ph.D., Department of Electrical Engineering, National Cheng Kung University, Taiwan

**Research:** Optoelectronic Devices, Solar cell, Semiconductor processing and technology, Semiconductor Devices

**E-mail:** jundar@mail.ncyu.edu.tw



## Expert Committee



**Name:** Shi-Chang Tseng, Professor of Department of Mechanical Engineering, National Yunlin University of Science and Technology  
**Educations:** Ph.D., Mechanical Engineering University of Wisconsin at Madison, U.S.A.  
**Research:** Polymer Rheology, Thermo-Viscoelasticity, Plastic/Composite Materials Processing  
**E-mail:** tsengsc@yuntech.edu.tw



**Name:** Yu-Jen Hsiao, Professor of Department of Mechanical Engineering, Southern Taiwan University of Science and Technology  
**Educations:** Ph.D., Department of Materials Science and Engineering, National Cheng Kung University, Taiwan  
**Research:** MEMS sensor, nanomaterials  
**E-mail:** yujen@stust.edu.tw



**Name:** Fu-Cheng Wang, Professor of Department of Mechanical Engineering, National Taiwan University  
**Educations:** Ph.D., University of Cambridge in Control Engineering  
**Research:** Automatic Control, Robust Control, Inerter Research, Vibration Control, Energy System, Medical Engineering, Artificial Intelligent  
**E-mail:** fcw@ntu.edu.tw



**Name:** Hsi-Wen Yang, Distinguished Professor of Department of Materials Science and Engineering, National United University  
**Educations:** Ph.D., Institute of Mining, Metallurgy and Materials of National Cheng Kung University  
**Research:** Special purpose glass and optical fiber, thin film engineering, magnetic materials, ceramic engineering, nanotechnology  
**E-mail:** hwyang@nuu.edu.tw



**Name:** Cheng-Mu Tsai, Professor of Graduate Institute of Precision Engineering, National Chung-Hsing University  
**Educations:** Ph.D., Department of Electrical Engineering, National Cheng Kung University, Taiwan, Taiwan  
**Research:** Optical System Design, Fourier Optics, Fiber-Optic communication, Image Processing  
**E-mail:** jmutsai@email.nchu.edu.tw

## “ Expert Committee



**Name:** Chun-Hung Lai, Professor of Department of Electronic Engineering, National United University  
**Educations:** Ph.D., Department of Electronic Engineering, National Chiao Tung University  
**Research:** Thin film technology, Memory  
**E-mail:** brandon@nuu.edu.tw



**Name:** Chang-Tzuoh Wu, Professor of Department of Industrial Design, National Kaohsiung Normal University  
**Educations:** Ph.D., Mechanical Engineering, National Cheng Kung University, Taiwan  
**Research:** Computer Aided Design and Manufacturing, Quality Design, Innovative Design, Perceptual Image Design  
**E-mail:** ctwu@nknknu.edu.tw



**Name:** Cheng-Hsing Hsu, Professor of Department of Electrical Engineering, National United University  
**Educations:** Ph.D., Department of Electrical Engineering, National Cheng Kung University, Taiwan  
**Research:** materials, electronics  
**E-mail:** hsuch@nuu.edu.tw



**Name:** Jenn-Kun Kuo, Professor of Department of Mechanical and Electro-Mechanical Engineering, National Sun Yat-Sen University  
**Educations:** Ph.D., Department of Mechanical Engineering, National Cheng Kung University, Taiwan  
**Research:** Hydrogen Energy and Fuel Cell  
**E-mail:** jenn.kun@mail.nsysu.edu.tw



**Name:** Hsin-Chia Yang, Associate Professor of Department of Electronic Engineering, Minghsin University of Science and Technology  
**Educations:** PhD, in Physics, Univ of Oregon , U.S.A.  
**Research:** Semiconductor Process, Semiconductor Equipments, Communication System  
**E-mail:** hcyang@must.edu.tw



## Guidelines

### 1. Official Languages

The official languages of IEEE ICASI 2022 are used only in English. All presentations including Q&A should be delivered in English.

### 2. Guideline for Participants

#### 2.1 Registration

Time of Early Registration: April 21, 2022 6:00pm~8:00pm (Reception Hall)

#### 2.2 Conference Kit

Conference kit, which contains final program, name badge, banquet, official receipt, will be provided to participants during check in at the Registration/Information Desk.

### 3. Guideline for Presenters

**1)** The presenters and session chairs are asked to keep to the paper sequence as shown in the Final Program. By following this predefined schedule, participants can switch between sessions without missing the particular papers of interest.

**2)** The presentation time for each presenter is 15 minutes. The session chairs should allow the presenter for a 10 minutes presentation and leave 5 minutes for discussions (up to 15 slides for oral presentation is recommended).

**3)** The presentation language of IEEE ICASI 2022 papers is only used in English.

**4)** Notebook PCs and LCD projectors will be available in every session room. Presenters are urged to prepare their files in MS PowerPoint format on a USB and copy the Conference into the PC at session room before the session begins. Our session aids will assist the presenters to copy the file. If you wish to use your own notebook PC, please open the file before your presentation time.

**5)** For unexpected events that cannot be handled on the spot, you may request through session chairs, session aids or make a direct notification to the Conference Secretary Desk.

**6)** Poster size: A2 (420mm×594mm).



# Conference Agenda

**Venue: Fuli Hot Spring Resort, Sun Moon Lake, Nantou, Taiwan.**  
**Language: English**

<b>Pre-Conference Schedule</b>		
<b>April 21, 2022</b>		
3:00 pm	6:00 pm	Sponsor Showcase (Grand Ballroom)
6:00 pm	8:00 pm	Early Conference Registration (Reception Hall)
<b>Main-Conference Schedule</b>		
<b>April 22, 2022</b>		
8:20 am	9:00 am	Conference Registration and Conference Information Collection
9:00 am	9:30 am	Opening Ceremony (International Conference Room)
9:30 am	9:40 am	Tea Break (International Conference Room)
9:40 am	10:30 am	Keynote Speech 1 (International Conference Room)
10:30 am	10:50 pm	Tea Break (International Conference Room)
10:50 am	11:40 am	Keynote Speech 2 (International Conference Room)
11:40 am	1:00 pm	Lunch & Free Time
1:00 pm	5:30 pm	Breakout Session of A1-2, B1-2, C1-2, D1-2 (Board Room) Poster Session of P1 (Poster Room)
6:00 pm	8:00 pm	Conference Banquet (Ballroom)
<b>Main-Conference Schedule</b>		
<b>April 23, 2022</b>		
9:00 am	12:00 pm	Sponsor Showcase (Grand Ballroom), Closing Ceremony



## Oral Session Schedule

**Venue: Fuli Hot Spring Resort, Sun Moon Lake, Nantou, Taiwan.**  
**Language: English**

<b>Breakout Session of IEEE ICASI 2022 A1, B1, C1, D1 (Board Room)</b> 1:00 pm - 3:00 pm, Friday, April 22, 2022.			
<b>Oral A1</b>	<b>Oral B1</b>	<b>Oral C1</b>	<b>Oral D1</b>
J220070 A	J220014 C	J220040 D	J220010 E
J220119 A	J220080 C	J220048 D	J220023 E
J220121 A	J220174 C	J220049 D	J220276 E
J220230 A	J220178 C	J220050 D	J220051 F
J220238 A	J220233 C	J220113 D	J220053 F
J220278 A	J220247 C	J220143 D	J220059 F
J220095 H	J220302 C	J220146 D	J220131 F
J220103 (IV6)	J220304 C	J220148 D	J220241 F
J220104 (IV6)	J220088 C	J220159 D	J220261 (IV8)
J220105 (IV6)		J220171 D	J220292 (IV8)
J220106 (IV6)		J220187 D	J220279 (IV4)
J220176 (IV6)		J220192 D	J220284 (IV4)

<b>Breakout Session of IEEE ICASI 2022 A2, B2, C2, D2 (Board Room)</b> 3:30 pm - 5:30 pm, Friday, April 22, 2022.			
<b>Oral A2</b>	<b>Oral B2</b>	<b>Oral C2</b>	<b>Oral D2</b>
J220034 J	J220093 B	J220031 (IV1)	J220045 (IV2)
J220077 J	J220096 B	J220032 (IV1)	J220062 (IV2)
J220249 J	J220130 B	J220047 (IV1)	J220069 (IV2)
J220275 J	J220076 G	J220090 (IV1)	J220092 (IV2)
J220307 J	J220152 G	J220091 (IV1)	J220286 (IV2)
J220164 K	J220253 G	J220097 (IV1)	J220204 L
J220166 K	J220123 (IV3)	J220185 (IV1)	J220214 L
J220177 K	J220125 (IV3)	J220072 I	J220219 L
J220181 K	J220126 (IV3)	J220011 N	J220248 L
J220030 J	J220242 (IV3)		J220303 L
J220310 C			
J220311 C			





## Poster Session Schedule

**Venue: Fuli Hot Spring Resort, Sun Moon Lake, Nantou, Taiwan.**  
**Language: English**

<b>Poster Session of IEEE ICASI 2022 P1 (Board Room)</b> <b>1:30 pm - 5:00 pm, Friday, April 22, 2022.</b>			
<b>J220037 A</b>	<b>J220046 A</b>	<b>J220098 A</b>	<b>J220109 A</b>
<b>J220134 A</b>	<b>J220151 A</b>	<b>J220160 A</b>	<b>J220309 A</b>
<b>J220189 B</b>			
<b>J220041 C</b>	<b>J220115 C</b>	<b>J220117 C</b>	<b>J220133 C</b>
<b>J220170 C</b>	<b>J220186 C</b>	<b>J220191 C</b>	<b>J220209 C</b>
<b>J220295 C</b>	<b>J220297 C</b>	<b>J220328 C</b>	
<b>J220027 D</b>	<b>J220082 D</b>	<b>J220138 D</b>	<b>J220140 D</b>
<b>J220141 D</b>	<b>J220145 D</b>	<b>J220150 D</b>	<b>J220195 D</b>
<b>J220196 D</b>	<b>J220197 D</b>	<b>J220264 D</b>	
<b>J220288 E</b>	<b>J220293 E</b>	<b>J220296 E</b>	<b>J220299 E</b>
<b>J220063 F</b>	<b>J220112 F</b>	<b>J220201 G</b>	<b>J220257 G</b>
<b>J220331 G</b>	<b>J220144 I</b>	<b>J220156 J</b>	<b>J220169 J</b>
<b>J220212 J</b>	<b>J220224 J</b>	<b>J220226 J</b>	<b>J220265 N</b>
<b>J220223 K</b>	<b>J220225 K</b>	<b>J220052 (IV1)</b>	<b>J220135 (IV1)</b>
<b>J220182 (IV2)</b>	<b>J220042 (IV4)</b>	<b>J220211 (IV4)</b>	<b>J220228 (IV4)</b>
<b>J220200 (IV5)</b>	<b>J220158 (IV7)</b>	<b>J220165 (IV7)</b>	<b>J220190 (IV7)</b>
<b>J220203 (IV7)</b>	<b>J220258 (IV7)</b>	<b>J220263 (IV7)</b>	<b>J220308 (IV7)</b>



## On-line Oral & Poster Session Schedule

**Venue: Fuli Hot Spring Resort, Sun Moon Lake, Nantou, Taiwan.**  
**Language: English**

<b>On-Line Oral Session of IEEE ICASI 2022 Google Meet A~B 1:00 pm - 3:00 pm, Friday, April 22, 2022.</b>			
<b>Google Meet A (<a href="https://meet.google.com/yfn-cnzu-tgg">https://meet.google.com/yfn-cnzu-tgg</a>)</b>	<b>Google Meet B (<a href="https://meet.google.com/wjz-doyf-xew">https://meet.google.com/wjz-doyf-xew</a>)</b>	<b>Google Meet C (<a href="https://meet.google.com/icb-towq-tdg">https://meet.google.com/icb-towq-tdg</a>)</b>	
J220136 A	J220183 D	J220075 (IV5)	
J220312 A	J220020 G	J220101 (IV5)	
J220119 A	J220067 G	J220114 (IV5)	
J220184 B	J220188 I	J220137 (IV5)	
J220018 C	J220168 J	J220139 (IV5)	
J220107 C	J220243 J	J220155 (IV5)	
J220132 C	J220005 K	J220167 (IV5)	
J220153 C	J220016 N	J220205 (IV5)	
J220173 C	J220290 N	J220208 (IV5)	
J220198 C	J220199 E		
J220221 C	J220127 (IV3)		
J220239 C	J220154 (IV4)		
J220240 C	J220252 (IV8)		
J220066 (IV2)	J220271 (IV8)		
J220256 D	J220272 (IV8)		
<b>On-Line Poster Session of IEEE ICASI 2022 P1 (Board Room) 1:00 pm - 5:30 pm, Friday, April 22, 2022.</b>			
J220147 A	J220179 A	J220207 A	J220237 A
J220019 B	J220213 B	J220015 C	J220073 C
J220129 C	J220244 C	J220282 C	J220291 C
J220003 D	J220074 D	J220086 D	J220268 D
J220269 D	J220270 D	J220057 K	J220285 L
J220332 M			



## Session Chairs

**Session of IEEE ICASI 2022 A1-2, B1-2, C1-2, D1-2 (Board Room)  
1:00 pm - 5:30 pm, Friday, April 22, 2022.**

**Oral Session A1**

Prof. Chien-Sheng Huang, NYUST and Prof. Ping-Chen Wu, NCKU

**Oral Session B1**

Prof. Ing-Jr Ding, NFU and Prof. Yen-Liang Pan, R.O.C. Air Force Academy

**Oral Session C1**

Prof. Hsin-Chia Yang, MUST and Prof. Chun-Hung Lai, NUU

**Oral Session D1**

Prof. I-Tseng Tang, NUT and Prof. Yaw-Shyan Fu, NUT

**Oral Session A2**

Prof. Chih-Ta Yen, NTOU and Prof. Chang-Tzuoh Wu, NKNU

**Oral Session B2**

Prof. Yaojung Shiao, National Taipei University of Technology

**Oral Session C2**

Dr. Thang Phan Quoc, CCU and Prof. Yuan-Kang Wu, CCU

**Oral Session D2**

Prof. Jhe-Wei Lin, FCU and Prof. Shu-Huei WANG, MingDao University

**Poster Session of IEEE ICASI 2022 P1 (Board Room)  
1:30 pm - 5:00 pm, Friday, April 22, 2022.**

**Poster Session P1**

Prof. Liang-Wen Ji, NFU and Prof. Sheng-Joue Young, NUU

# List

## The 8th IEEE International Conference on Applied System Innovation 2022 (IEEE ICASI 2022)

J220003

Chen Keng Yuan; Lin Jau Nan; Huang Chyi Sheng  
Low Baseband Harmonics Multi-Rate Filtered PWM for Voltage Source Inverters

J220005

Yi-Ying Wu  
Is feminist ideology the cause of smartphone addiction?

J220010

Wei-chen Lee; Chang-lin Yang  
Machining Time Estimation of the EDM Process

J220011

Huang Hsiao Chien  
Using Service Design to Enhance Digital Cognitive Learning for Middle-aged and Seniors – Take the online teaching workshop as an example

J220014

Yen-Liang Pan; Chia-Ching Chang; Fu-Jung Ku  
Using Advanced Surface Movement Guidance and Control System for Kaohsiung Xiaogang Airport aircraft's route assignment planning Based on Petri nets

J220015

WEI-MING MA; WILLIAM CHAO  
Structure-Behavior Coalescence Method for Formal Semantics of Domain-Specific Modeling Language

J220016

Lin, TsenFang; CHIEN-MIN CHENG; YEOU-JIUNN CHEN; LIANG-BI CHEN  
Towards promoting people's relaxation using monaural beats with ultra-low frequency inaudible sounds

J220018

Ye-In Chang; Chen-Chang Wu; Kuan-Chieh Lin  
Mining Top-rank-k Erasable Patterns

J220019

Chien-Cheng Tseng; Su-Ling Lee  
Temperature Data Denoising Using Hypergraph Laplacian Matrix and Hypergraph Fourier Transform

J220020

Heng-Chih Huang; Chun-Hung Lin; Jain-Shing Liu  
Enabling Smart Camera Traps with Artificial Intelligence of Things (AIoT) technology

J220023

Tien-Lun Liu; Ting-Syuan Lin; Hsuan-Wei Fu; Tsung-Jen Chen  
An Application of Robot Manipulation with Visual Recognition Using Depth Camera and Mask R-CNN Method

J220027

Cheng-Yi Zhuang; Yen-Hao Chen; Guo-Yi De; Ding-Bing Lin

Bandwidth Limitation Studies for De-embedding Techniques of Automatic Fixture Removal

J220030

Huan-Liang Tsai; Jen-Yung Lin; Guan-Hua Lu

Development of Wireless AC Power-Monitoring Module

J220031

Chih-Ming Hong; Chiung-Hsing Chen; Jia-Xiang Zhang; Jwu-Jenq Chen

Energy Storage Monitoring and Smart Energy management System combining Wind and Solar Power Generation

J220032

Wen-Hui Lin; Ping Wang; Hsiao-Chung Lin; Zong-Yu Yang; Yu-Huang Lai

Determine the Optimal Parameters of Deep Learning Networks with Reinforcement Learning Scheme to Wind Power Forecasting

J220034

Hung-Chieh Liu; Yi-Ming Wang

Design and testing of a reversed intake for a turboprop engine on a pusher aircraft

J220037

Tao-Hsing Chen; Wei-Kai Lin; Chi-Fan Liu

The Study of Photo-electric Properties with different doped elements on ITO and ZnO Thin Films

J220040

ZhenJin-Wang; Xin-Liang Ye; Ricky W. Chuang; Chih-Chiang Yang; Yan-Kuin Su

Improved Performance of AlGaInP red micro Light-emitting diodes by Sidewall Treatments of Citric Acid

J220041

Ming-Yu Hsu; Tsui-Ping Chang; Shih-Ying Chen

Deep Learning for fake news and fake images identification

J220042

Cheng-Mu Tsai; Tzu-Chen Yu

Conversion of User-Defined Rotation Symmetric Collimated Beam Shaping from Divergence Light Source by Using Numerical Method

J220045

Jhe-Wei, Lin

Evaluation of Chinese Story Cycle Generation Based on part-of-speech Matching and Contextual Coherence

J220046

KAI-HSIANG YEN

Risk Evaluation for Safety of Hydrogen Applications

J220047

Jenn-Kun Kuo

Simulation of Fuel Cell in Series System with Hydrogen Recovery

J220048

Hsin-Chia Yang; Kuan-Hung Chen; Tzu-Chien Chen; Sheng-Ping Wen; Sung-Ching Chi  
Fitting Current-Voltage Characteristics Curves with Fixed Kn

J220049

Hsin-Chia Yang; You-Sheng Lin; Zhe-Wei Lin; Tzu-Chien Chen; Sheng-Ping Wen; Sung-Ching Chi  
Negative Fixed Threshold Voltage on NFinFET Current-Voltage Characteristics Curves

J220050

Hsin-Chia Yang; Chia-Chun Lin; Sheng-Ping Wen; Zhe-Wei Lin; Chen-Yu Tsai; Sung-Ching Chi  
Leakage Current Association with Fixed Early Voltage on Current-Voltage Characteristics Curves

J220051

Chih-Yu Ko; Cheng-En Shih; Wen-Hui Kuan  
Lower critical solution temperature (LCST)-type ionic liquid served as the drawing agent in forward osmosis for the water reclamation from diamond-wire-sawing wastewater

J220052

Yu-En Wu  
Development of a Novel Emergency Lighting System with Improved Boost-Flyback Topology

J220053

Han-Juan Zheng; Wen-Hui Kuan  
Precious metals recovery from spent lithium-ion batteries using microwave-assisted redox reaction

J220057

Guang-Dah Chen; Hsiwen Fan  
Form Performance of a Rotating Spiral Cone under the Apparent Movement: Examining Different Styles of Discontinuous Lines

J220059

Wei-Cheng Lin; Wen-Hsuan Huang; Nima Bolouki; Jang-Hsing Hsieh; Wen-Hui Kuan  
Non-thermal plasma for the degradation of pharmaceuticals in medical wastewater: influences of reactor layout and water condition on the active species

J220062

Che-Cheng Chang; Shih-Tung Tsui; Yee-Ming Ooi; Ting-Hui Chiang; Ming-Han Tsai  
Utilizing Ensemble Learning to Improve the Distance Information for UWB Positioning

J220063

Ting-Wei-Huang; Hsing-Cheng Yu  
Design and Analysis of Kite-type Wind Energy Generator System

J220066

Hung-Yu Tsai; Ming-Han Tsai; Ting-Hui Chiang; Che-Cheng Chang  
Comparative Evaluation of different Following Mechanisms in VR Guided Tour

J220067

SHU-HAO LIANG; Ramiro Ramirez  
5G Digital Twin for Smart Logistic Scenarios

J220069

Jichiang Tsai; Che-Cheng Chang; Yu-Cheng Ou; Bing-Herng Sieh; Yee-Ming Ooi  
Autonomous Path Planning and Obstacle Avoidance Based on Deep Reinforcement Learning

J220070

Kun Guan; Artde Donald Kin-Tak Lam; Xiang-Yuan Zeng  
A Study on Evaluation of Flexible Substrate Materials Based on AHP

J220072

Tao Feng; Artde Donald Kin-Tak Lam; Xiang-Yuan Zeng  
Research on the Development Status and Promotion Strategies of UAV industry in China

J220073

Cheng-Lin Li; Chung-Yen Su  
Multi-Connection of Double Residual Block for YOLOv5 Object Detection

J220074

Shang-Ze Yang; Shih-Chang Hsia  
Design of Thermopile Combined with Dual Slope A/D Converter for Temperature Sensor

J220075

Ping-Huan Kuo; Chiou-Jye Huang; Jun Hu; Wei-Cyuan Yang; Xin-Yu Chen; Wei-Hsin Chang  
Multisensor Gesture Recognition and Target Tracking Strategy for Human–Robot Interaction System

J220076

Jeng-Ji Huang; Jhen-Wei Chen  
Uplink throughput optimization for multiple gateway systems in LoRaWAN Class A

J220077

Chien Shun Lo; Jie Min Lu; Chung Chieh Chen; Sheng Chieh Yang  
Mobile Spinning Bike Fitting in the Gym

J220080

Chen, Shou-Cih; Kuo, Yen-Yen; Ke, Kai-Fu; Chen, Yu-Chen  
Human Alcohol Residual Detection Application Designed Based on Smart Phone Platform

J220082

Ying-Ting Liao; Yih-Chien Chen; Cheng-Chien Kuo  
Development of Measurement Technology for Dielectric Properties with Dual Structures and Passive Antenna Temperature Sensor Application

J220086

Hsieh, Ming-Ju; Hsia, Shih-Chang  
Chip Design of Low-Power Voltage Regulation with PFM Control

J220088

Chen, Shou-Cih; Lin, Li-Feng; HUANG,SHIH-HAN; SHIH,JIA-YI; CHANG,CHIA-FU  
Interesting Bookkeeping Application- Based on Constructing Financial New knowledge

J220090

Yuan-Kang Wu; Quoc-Thang Phan; Quoc-Dung Phan

An Approach Using Transformer-based Model for Short-Term PV Generation Forecasting

J220091

Yuan-Kang Wu; Quoc-Thang Phan; Hsin-Yen Lo; Quoc-Dung Phan

A Study on Missing Data Imputation Methods for Improving Solar-Related Datasets

J220092

Ting-Hui Chiang; Yu-Huang Lin; Kuo-Yu Tsai; Ming-Hung Wang

Identifying Sarcasm on Facebook Using Portfolio Analysis

J220093

Jeng-Ji Huang; Sheng-Hsiang Lin; David Shiung

Improving the Throughput Performance of a Multichannel MAC Protocol in RSU-Assisted Vehicular Ad Hoc Networks

J220095

Jeng-Ji Huang; Han-Hui Chiu; David Shiung

A Markov-process-based delay analysis for uplink transmissions in LoRaWAN class A

J220096

Jeng-Ji Huang; Yi-Rui Li; David Shiung

A design for client association and resource allocation in mmWave 5G networks

J220097

Yuan-Kang Wu; Cheng-Liang Huang

Field Measurements and Numerical Simulations for Fault Diagnosis of PV Systems

J220098

Su-Hua Yang; Shun-Ming Liao; Chia-Ho Wang

Enhancement on Luminescence of ZnAl<sub>2</sub>O<sub>4</sub>:Eu<sup>3+</sup> Phosphor with Carbon Dots Addition

J220101

Yu-Liang Hsu; Hsing-Cheng Chang; Yan-Zhu Chen

A Deep Learning-based Emotion Recognition System for Human Emotion Recognition

J220103

Yung-Hsu Chen; Yan-Kuei Wu; Chun-Yen LEE; Sheng-Chin Shen

Application of Arrayed Sensing System in Real-Time Monitoring the Leakage of Deep-sea Pipeline

J220104

Ping-Chen Wu

CFD Application to Design Sonar Dome Geometry for Ship Resistance Reduction

J220105

Ping-Chen Wu

Design of Stern Duct for JBC to Reduce Bare Hull Resistance by CFD Method



J220106

Ping-Chen Wu

Application of Body Force Propeller Model with Blade-rotational Effect in CFD

J220107

Fu-Cheng Wang; Szu-Fu Chen; Ang-Chieh Lin; Tzu-Tung Lin; Yin-Keat Tan; Wen-Jen Pan

Benefits of Yoga Practice in Improving Gait Performance and Body Stability

J220109

Chao-Ming Lin

Experiments on Mechanical Behavior and Electrical Conductivity of Au/Ni-Coated PMMA-Core Composite Ball During Micro Compression Testing

J220112

Chun-Yang Ku; Jyh-Herng Chen

The recovery of lithium iron phosphate from lithium ion battery

J220113

Hsin-Chia Yang; Pei-Jun Yang,; Chen-Chien Tsai,; Tzu-Chien Chen,; Sung-Ching Chi

Comparison of Fitting Current-Voltage Characteristics Curves with Various Fixed Parameters

J220114

Chih-Chiang Chen

Output Feedback Stabilization for a Class of Uncertain Planar Systems with Output Constraint

J220115

Cheng-Jian Lin; Jyun-Yu Jhang; Chin-Ling Lee

Floor Area Detection Using a Multiple-Classifer Method Based on Improved Fuzzy Integral

J220117

Cheng-Jian Lin; Zan-Bo Wang; Jyun-Yu Jhang; Chin-Ling Lee

Malware Classification Using Taguchi-based Deep Learning Networks

J220121

Chih-Cheng Yang; Yu-Ning Lu

The Improvement of Spheroidized Annealing Quality on SCM440 Alloy Steel Wires by Using Taguchi Method

J220123

Yaojung Shiao; Chia-Tien Wu; Pin-Hao Huang

An Experimental Study of Automated Optical Inspection of Defects on Rail Surface

J220125

Yaojung Shiao; Pin-Hao Huang; Chia-Tien Wu

Design and Characterization of a Novel Micro Autonomous Railway Inspection Car

J220126

Yaojung Shiao; Huynh Tan Linh

Suspension Control and Characterization of Variable Damping Magneto-Rheological Mount for a Micro Autonomous Railway Inspection Car

J220127

Hsiu-Ying Hwang; Gan-Yao Ting; Jia-Shiun Chen  
Crashworthiness Analysis of a Railway Vehicle

J220129

Chia-Yin Kuo; Bai-Li Hwang; Chen-Hao Huang  
Exploring the Development Trajectory of Big Data Analytics in Supply Chain Management: A Main Path Analysis

J220130

Jeng-Ji Huang; Yu-Chi Kao; David Shiung  
A Hybrid Channel Allocation Scheme for VANETs

J220131

Ren-Hui Chen; Wen-Hui Kuan  
Effects of preparation methods of magnetic nanoparticle electrolytes on the characteristics of draw solution in forward osmosis

J220132

Byoung-Doo Oh; Hyung Choi; Yu-Seop Kim  
Impact-Echo based Defect Detection in Duct using Deep SVDD

J220133

Hung-Chou Hsiao; Wen-Chang Cheng; Yu-Kai Chou; Chen-Wei Chen  
The Implementation of Smart Locker in Edge Computing

J220134

Yee-Shin Chang; Sean Wu; Wen-Jen Lee; Chien-Chih Chiang  
Characteristics of SUS 304 stainless steel annealed at different temperatures

J220135

Rong-Jong Wai; Pin-Xian Lai  
Design of Intelligent Solar PV Power Generation Forecasting Mechanism Combined With Weather Information Under Lack of Real-Time Power Generation Data

J220136

Hung-Che Shen  
A Singing Text-to-Speech System by Using UTAU Software

J220137

YU-JEN LIU; CHENG-YU LEE; YU-HSUAN TAI  
Optimization-Based Stochastic Analysis Method for the Assessment of PV Hosting Capacity

J220138

Po-Feng Chen; Jung-Chuan Chou; Po-Hui Yang; Chih-Hsien Lai; Po-Yu Kuo; Ruei-Hong Syu  
Improvement of Photovoltaic Performance for Dye-Sensitized Solar Cells Using Modified Scattering Layer with WO<sub>3</sub> Hollow Spheres

J220139

Yu-Jen Liu; Cheng-Yu Lee  
Estimation of photovoltaic power generation by using deep learning-based method

J220140

Yu-Chi Chang; Yu-Min Chang; Yi-Fang Sie; Chih-Hsin Lin; Bo-Jhang Chen; Yi-Yun Liang  
Improved Uniformity of Resistive Switching Using Air Plasma Treatment on the Al/Xanthan gum Interface

J220141

Po-Ying Chu; Jung-Chuan Chou; Po-Hui Yang; Chih-Hsien Lai; Po-Yu Kuo; Kun-Tse Lee  
Research on Sensing Characteristics of Non-enzymatic Potentiometric Dopamine Sensor Based on CuO Film

J220143

Jibin Jose Mathew; Shia-Chung Chen; Ching-Te Feng; Tzu-Jeng Hsu  
An innovative method to monitor and control an injection molding process condition using Artificial intelligence based edge computing system

J220144

Kuan-Yu Lin; Chih-Hua Chen  
A Study of the factors affecting the intention to fund of crowdfunding platform

J220145

Tai-Hui Wang; Po-Yu Kuo; Jung-Chuan Chou; Chih-Hsien Lai; Wei-Hao Lai; Chun-Hung Chang  
3D Printing of the Microfluidic Device Combined with Urea Biosensor for Dynamic and Static Measurements

J220146

Zhi-Wei Liu; Shen-Li Chen; Jhong-Yi Lai; Xing-Chen Mai; Yu-Jie Chung  
HV 65V nLDMOSs Engineering of ESD Enhancement by the Drain Side with Parasitic SCR Modulations

J220147

Yu-Kai Chang; Hao-Yuan Cheng; Chia-Lin Wu; Ting-Jen Hsueh  
A stainless steel nanotextured structure

J220148

Jhong-Yi Lai; Shen-Li Chen; Zhi-Wei Liu; Xing-Chen Mai; Yu-Jie Chung  
An ESD Investigation of 100V UHV nLDMOSs Embedded with Schottky/SCR Components in the Drain Side

J220150

Deng-Kai Chang; Yu-Chi Chang; Jia-Cheng Jian; Zhao-Cheng Chen; Hao-Jung Liu; Ya-Lan Hsu; Ting-Yun Wang  
Spherical-like ZnO Modified by Apple Pectin Bio-template for Fabrication of UV Photodetector

J220151

Chang-Yu Lin; Ambika Subramanian; Rajesh Kumar Ulaganathan; Raman Sankar  
Two-Dimensional Chalcogenide of p-type Semiconducting Photodetector

J220152

Prasad; Gao Ruicheng; Jing-Jou Tang; Chen Jhen Hao  
LIN Bus Based Touchpad System for Smart Vehicle Cabin

J220153

Ming-Yang Su; Yu-Hung Lu; Hung-Yang Lu; Yu-Shih Lian; Kang-Tao Peng  
Using VPN mechanism on Android platform to safeguard URL connections of all apps

J220154

Jie-Tong Zou; Rajveer G V

Drone based Solar panel inspection with 5G and AI technologies.

J220155

Chi-Chang Wu; Hao-Rong Liu

Improving sensitivity of the nanowire FET biosensor for bacterial detection

J220156

Meng-Jey Youh; Jer-huan Jang; Ming-Der Ger; Hong-Yang Huang; Lin-Xin Lu

A study on the encapsulation of liquid impact-absorbing materials

J220158

Chun-Hung Lai; Yu-Hsiang Liu

Characteristics and mechanism of current conduction and resistance switching in Ag/ZrO<sub>2</sub>/ITO thin film

J220159

Fu-Kuei Chen; You-Kwang Wang; Hsin-Piao Lin; Chien-Yu Chen; Shu-Ming Yeh; Ching-Yu Wang

Clinical Noncontact Sleep Apnea Detection Through Wavelet Spectral Entropy Analysis Using Millimeter Wave Radar

J220160

Jung-Jie Huang; Pei-Yu Chang; Yu-Wu Wang; Jui-Yu Wang; Chien-Sheng Huang

WO<sub>3</sub>/TiO<sub>2</sub> stacked film structure on graphite felt by liquid phase deposition for vanadium redox flow battery

J220164

Jeng-Chung Woo; Feng Luo; Zhe-Hui Lin; Yu-Tong Chen

Research on the Modelling Design of Kansei Image for Electric Toothbrush Based on NLP and BPNN

J220165

Chien-Chon Chen; Xi-Wen Yang; Jun-Hong Lai; Chien-Chon Chen

Lightweight Portable and High Thermal Conductivity Storage/Release Hydrogen Bottle

J220166

Jeng-Chung Woo; Zhe-Hui Lin; Feng Luo; Guo-Qing Pan

Research on Multi-sensory Design of Electric Shaver from the Perspectives of Kansei Engineering

J220167

Yu-Wei Chen; Jui-Han Lai; Yi-Chung Chen

Using Deep Learning Models to Predict and Explore the Factors of the Usage of Transportation - Take Taxi and You-bike as an Example

J220168

Chao-Chung Peng; Ai-Chi Chang; Yu-Luan Chu

Application of Augmented Reality for Aviation Equipment Inspection and Maintenance Training

J220169

Hong Yi Pai; Leon Su; Chin Feng Chang

A Learning Platform with Interactive Storytelling Based on Augmented Reality : A Case Study for On-site Tour of Ecomuseum

J220170

Sheng-Yuan Yang

A Smart Energy-saving Cloud Information Monitoring and Recommendation Multi-agent System

J220171

Kuan-Chou Lin; Yu-Xuan Lu; Chih-Ting Lin

High responsivity of graphene photodetector with metasurface in the mid-infrared region

J220173

Jeih-weih Hung; Yu-Yu Hsiao; Ming-Hsuan Wu; Kuan-Yu Tsai

The preliminary study of improving the DPTNet speech enhancement system by adjusting its encoder and loss function

J220174

Chow-Sing Lin; Kuang Tseng

Enhancing Natural Language Inference of Cross-lingual N-shot Transfer with Multilingual Data

J220176

Yan-Kuei Wu; Yen-Ju Chen; Sheng-Chih Shen

Design and fabrication of self-powered strain sensor for ship structure real-time monitoring.

J220177

Jeng-Chung Woo; Guo-Qing Pan; Zhe-Hui Lin; Yu-Tong Chen

Research on Operating Modes of Industrial Design Studios from Qualitative and Quantitative Perspectives

J220178

PENG-SHENG CHEN; Sheng-Min Chung; PENG-SHENG CHEN

Supporting Secure Multi-party Computation for R Framework

J220179

Kae Long Lin; Ya-Wen Lin; Wei-Hao Lee; Bo-Yi Kuo

Amine grafted functionalized mesoporous silica nanomaterials for efficient environmentally friendly building materials for indoor humidity control

J220181

Jeng-Chung Woo; Yu-Tong Chen; Qin Liu; Feng Luo

Research on the Design of Home Auxiliary Readers for the Elderly Base on QFD and TRIZ

J220182

Jia-Ming Liang; Ping-Lin Chung; Shashank Mishra; Zheng-Wei Ding

Using GAN with CNN to Enhance Multi-Resident Activity Recognition

J220183

Jeih-weih Hung; Qi-Wei Hong; Chi-En Dai; Hui-Chun Hsu; Zong-Tai Wu

Leveraging the perceptual metric loss to improve the DEMUCS system in speech enhancement

J220184

Jeih-weih Hung; Yong-Jie Tang; Po-Yen Hsieh; Ming-Hung Tsai; Yan-Tong Chen

Improving the efficiency of Dual-path Transformer Network for speech enhancement by reducing the input feature dimensionality

J220185

Yuan-Kang Wu; Cheng-Liang Huang

Study of Simplified Models for Transient Frequency Response in Electrical Power Systems

J220186

Chia-Yi Chuang; Meng-Chi Huang; Yi-Hao Hsiao; Tai-Chi Wang; Chun-Ming Huang

A novel Energy Technology Trend Analysis Framework Using Text Mining Algorithm Based on SDG 7 for Government Science and Technology Projects

J220187

Wei-Chen Lee; Ruei-Si Hong; Jhan-Li Wu

Development of a Low-Cost Probe based on the SMA Adaptor for S-Parameter Measurement

J220188

Sin-Jin Lin; Te-Min Chang; Ming-Fu Hsu

An advanced decision support architecture by joint utilization of contextual topic modelling and data envelopment analysis

J220189

Hung-Ming Chen; Yung-Feng Lu; Shih-Ying Chen; Che-Jung Chang; Zhong-Xiang Zheng

Design of an NFV MANO architecture for 5G private network with 5G CN cloud-edge collaborative mechanism

J220190

Chun-Hung Lai; Ming-Yi Syu

Annealing effect on the ZrO<sub>2</sub> gradual resistance change as a synaptic device

J220191

Hung-Ming Chen; Shih-Ying Chen; Sheng-Kai Wang; Jian-Qun Chen

Designing a Reinforcement Learning Approach for the NFV Orchestration System with Energy Saving Optimization

J220192

Ying-Sheng Zhang; Zhe-Zong Zhan; Po-Hui Yang; Jung-Chuan Chou; Po-Yu Kuo; Chih-Hsien Lai

Aluminum-doped Zinc Oxide Potentiometric pH sensor Based on Flexible Printed Circuit Board

J220195

Chih-Feng Yen; Yu-Ya Huang; Shen-Hao Tsao; Hung-Chang Hsu

Analysis of electrical properties in MOS structure with a low surface roughness Al<sub>2</sub>O<sub>3</sub>-doped ZnO film as gate oxide

J220196

Chih-Feng Yen; Shen-Hao Tsao; Yu-Ya Huang; Hung-Chang Hsu

Fabrication and characteristics of SiON/p-Si by non-vacuumed deposition technology

J220197

Chih-Feng Yen; Hung-Chang Hsu; Shen-Hao Tsao; Yu-Ya Huang

Influence of various annealing ambient in Y<sub>2</sub>O<sub>3</sub>-based gated Si MOS and their electrical characteristics

J220198

Xian-Zhong Lin; Wei-Chun Wang; Kuen-Fang Jea

Using Embedding Learning to Improve the Accuracy of Binary Sentiment Analysis on Few-shot Text Data

J220199

Pradiktio Putrayudanto; Jiing-Yih Lai

Classifying and Recognizing Face Types of Thin-Shell Models for Volume Decomposition in CAE Analysis

J220200

Shi-Chang Tseng; Melsiani Rosdiani Fillipin Saduk; Hong Jiaqi

Modeling and Experiments of a Soft Gripper for Robotics Arms Applications

J220201

Yung-Feng Lu; Hung-Ming Chen; Meng-Ju Zhong; Zong-Yan Dai

Design of a soft Isolation mechanism for Kubernetes-based multi-tenant NFV platform

J220203

Kuei-Jung Chen; Hsi-wen Yang

Research on the structure and properties of bismuth borate glass system for laser sealing

J220204

Hsiu-Ting Su

Service Design of Cultural Performances in Emerging Festivals - Taking the Bean of Life Festival in Alishan as an Example

J220205

Kai-Tang Huang; Yan-Cheng Lin; Jhen-Kai Luo; Yi-Hung Chen; Yi-Chung Chen; Tzu-Yin Chang

Forecasting human flow via multiple locations using an RNN-GAN

J220207

Kae Long Lin; Sheng-Yuan Peng; Ya-Wen Lin; Wei-Hao Lee; Yen-Yu Lin

Removal of Pb<sup>2+</sup> heavy metals from aqueous solution by novel eco-hydroxyapatite prepared from marble sludge

J220208

Hsing-Cheng Chang; Yu-Liang Hsu; Yi-Fan Chen; Jung-Chih Lin

A heavy metal ion detection platform based on micro-current photoelectric measurement technology

J220209

Yi-Ting Wang; Kuan-Yu Lin; Shen-Hua Wang

Exploring the Design of an AR-based English Vocabulary Learning Application

J220211

Yeou-Jiunn Chen

Using Self-Learning to Acute Myocardial Infarction Identification System

J220212

Chien-Sheng Huang; Hsin-Fong Miao; Yu-Fang Hsieh; Shih-Cheng Yu

An interactive glassless 3D imaging design and its verification

J220213

Ruu-Sheng Huey; Tsung-Ming Lin; Chih-Kuo Hsu

Predictive Handover Approach for Dynamic Resource Management in 5G Heterogeneous Networks using Grey Fuzzy Logical Control

J220214

CHIANG SHUN YAO; HWANG SHYH-HUEI

A Preliminary Study on the Centennial Evolution of Penglaitu Lacquerware in Taiwan

J220219

Hwang Shyh Huei; Lai Chiu Mei

A unique festival shaped by geographical environment and historical events – Thanksgiving ritual in Zhanghu Village

J220221

Chiu, Chaochang; Kuo-Hsiung Wu; Po-Yang Chen

A Social Media Based Profiling Approach for Potential Churning Customers: An Example for Telecom Industry

J220223

Chi-Hung Lo; Yao-Chen Li

Bionic and topology optimized improved structures of Industrial helmet design

J220224

Chi-Hung Lo; Chi-Jia Huang

The Evaluation of learning workflow of application positions redesigned in shelter workshop personnel

J220225

Chi-Hung Lo; Sheng-Huang Chiu

Constructing a Generative Design Systems in Product Design with Bionic Thinking

J220226

Chi-Hung Lo; Bing-Yi Lin

Applied Metaphor Technology (ZMET) Exploring the charm factor in the animated film " Spirited Away"

J220228

Zhi Ting Ye; Chun Huang; Chia Chun Hu; Wei Lai; Chang Che Chiu

Thermally conductive polymer combined with aluminum alloy part as a heat sink for LED headlight

J220230

PING-HAN Wu; Hong-Tsu Young; Kuan-Ming Li

Picosecond dual-pulse laser ablation properties of fused silica

J220233

WEI-JEN WANG; Yen-Lin Lee; Min-Yi Tsai; Deron Liang

Efficient online liveness fault detection for cloud services based on coordinated concurrent actions of multiple detectors

J220237

Jun-Dar Hwang

Using Ag-doped NiOx to improve the characteristics of p-NiOx/n-Si heterojunction diodes

J220238

How-Wei Ke; Cheng-Chen Liu; Chia-Tsung Hung; Shyue-Bin Dai; I-Tseng Tang; Yaw-Shyan Fu

Perovskite-based solar cell fabricated under the atmosphere with hydrothermally-grown ZnO nanorod arrays as the electron transport layer



J220239

Teng-Chun Yu; Shie-Jue Lee

A Hybrid Model for Recommender Systems in E-commerce

J220240

Yu-Chieh Wang; Shie-Jue Lee

A CNN-based model for early discrimination of Alzheimer's disease

J220241

Yu-Jen Hsiao; I-Tseng Tang; Bo-Chun Yang

Polymer-Carbon Glue Composite Structures for gas sensor

J220242

Huang, Cheng-Hao; Lin, Chih-Chiang

Safety evaluation of railway vehicle running through broken rail

J220243

Tienhua Wu

Curriculum design in creativity education with a focus on entrepreneurship

J220244

Zhi-Fang Yang; Chin-Ting Hung

FEEDBACK MAX-MARGIN EARLY EVENT DETECTOR

J220247

Chun-Hsiung Huang; Kuo-Kuang Fan; Yu-Lin Chen

Influence of perceived usefulness, self-efficacy and learning motivation on learning satisfaction in flipped teaching situation

J220248

Po-Jo Lai; Shyh-Huei Hwang

The Golden Years of Tea: Transition, Attenuation, and Transformation of Tea Industry- Case Study of Tea Factories in Taoyuan, Hsinchu and Miaoli

J220249

Ting Yu, Wu; Ko-Chiu Wu

Visually Impaired Constructing Mental Map By Tactile Feedback in an Immersive Environment

J220252

CHIANG, Mao-Hsiung; Ching Lin; Chun-Hung Chien; Kuan-Yu Chen; Cherng-Jer Chueh

Dynamic Simulation and Control of a Semi-submersible Floating Offshore Wind Turbine with a Direct-Driving Permanent Magnetic Synchronized Generator

J220253

Ing-Jr Ding; Ya-Cheng Juang

An Artificial Internet of Things-Based Mobile Vehicle Positioning Control Design Incorporated with Hand Gesture Action Operations Using Hybridizations of SEMG and IMU Sensor Data

J220256

Feng-Hsiag Hsiao; Shuo-Wen Chang; Ching-Chun Lin; Zhao-Xuan Feng

Applying RC4 Stream Cipher to A Chaotic Synchronization System

J220257

Prasad BVP; Jeyaselvi M; Sathya M  
IOT BASED SMART AGRICULTURE

J220258

Cheng-Hsing Hsu; Ming-Yueh Hsieh; Cheng-Hsien Yeh; Wen-Shiush Chen; Jenn-Sen Lin  
Properties of Reactively Rf-Magnetron Sputtered MgTiTa<sub>2</sub>O<sub>8</sub> Dielectric Films

J220261

Shiu-Wu Chau; Yu-Sheng Cai; Hoi-Yi Tong; Chang-Lin Kuo; Tsung-Yue Lin; Shun-Han Yang  
Performance and Motion Prediction of a Semi-Submersible Floating Wind Turbine in Taiwan Strait

J220263

Cheng-Hsing Hsu; Ching-Fang Tseng; Chun-Hua Teng  
Effect of Thermal Treatment on Thermoelectric Characteristics of BiNiO Thin Films

J220264

Chih-Ta Yen; Un-Hung Chen; Tz-Yun Chen  
Using Feature Fusion with Multi-axis Sensor Signals For Table Tennis Action Recognitions by Deep Learning Network

J220265

Ming-Hung Chiu; Jun-Wei Lin; Chun Wang  
Measuring the optical rotation of water using the common-path heterodyne interferometer

J220268

Kai-Huang Chen; Jia-Cheng Zhou; Mei-Li Chen; Chien-Min Cheng  
Resistive Switching Behavior and Physical Properties of GdOx:SiO<sub>2</sub> Thin Films Resistive Random Access Memory

J220269

Kai-Huang Chen; Ying-Jie Chen; Mei-Li Chen; Chien-Min Cheng  
Piezoelectric Properties of Lead-Free Ceramic Micro-Pressure Thick Films

J220270

Kai-Huang Chen; Hsiao-Wen Hung; Na-Fu Wang; Chien-Min Cheng; Chi-Cheng Liu  
Investigating and Analysis of Decay Reaction Mechanism for Bipolar Switching Characteristics of Vanadium Oxide RRAM Devices

J220271

JING-FA TSAI  
Free Decay Model Test of the IEA 15MW UMaine VoltturnUS-S Floating Reference Platform

J220272

CHIANG, Mao-Hsiung; Guan-Ying Huang; Sheng-Chia Lin  
Development of an Offshore Turbine Access System with Four-Axial Active Motion Compensation

J220275

HSIEH MING-HONG  
To Improve The Efficiency of Electrostatic Discharge Protection Measures for Glue Coating Operation of Adhesive Tape Process\_ As an Example of ESD Fabric

J220276

Quang-Cherng Hsu; Guan-Hong Lin; Anh-Tuan Dang

Development of Two-step 2D Calibration Method for Measurement System with Large FOV

J220278

Wan Shu Cheng; Tsung Chieh Cheng; Te-Hua Fang; Xie-Han Ru

The Optical and Field Emission Properties of a Transparent Flexible ZnO Nanowires film

J220279

Yi Chin Fang; CHANG,KAI-SHENG; Wen-Hsing Lai; Wu,Cheng-Xi; LIN WEI YAO; CHU SHU WEI

A Study of Sonic Spectral Response of Turntable Tonearm Vibration Applied to Vinyl Records

J220282

Lingyuan Liu; Ou jianbin; Xiaolin Bi; Zhuoxuan Hou; Jiahong Lv

Fully-functioned region-based COVID-19 information system

J220284

Yi Chin Fang; Sheng-Feng Lin; HUANG,YU-TING; CHANG, YU-YAO

Optical design and Optimization for Space Optics Applied to Mars Exploration

J220285

Huang, Chen-I; Ke, Chun Wei; Chen, Chung-Jen; Hsu, Wen-Chun

Tainan Xigang District Black Sesame Oil Packaging Design and Creative Research

J220286

Ting-Hui Chiang; Po-Yi Kuo; Huan-Ruei Shiu; Yu-Chee Tseng

A Framework for Fusing Video and Wearable Sensing Data by Deep Learning

J220288

Shyh-Chour Huang; Yung-Sheng Chang; Vu N. D. Kieu

Optimal Design of a Leaf Flexure Compliant Mechanism Based on 2-DOF Tuned Mass Damping Stage Analysis

J220290

Wei-Cheng Chiu; You-Ming Chang; Shuhn-Shyurng Hou

Improvement of cold start-up characteristics of methanol reformer for hydrogen production

J220291

Jianbin Ou; Lingyuan Liu; Xiaolin Bi; Zhuoxuan Hou; Jaihoung Leu

A Four-Label Dataset to Distinguish Figurative and Hperbolic Symtom Words from Literal Usage to Personal Health Mention Detection

J220292

Shun-Han Yang; Yu-Chia Chen; Jun-Hui Huang; Po-Yi Lin

Dynamic response analysis of inter-array power cables for a semi-submersible floating offshore wind turbine

J220293

Yen-Ting Li; Yih-Lin Cheng; Kea-Tiong Tang

A Simplified Model for Predicting the Diffusion Diameter and Penetration Depth of Binder Jetting in Sand Mold Printing

J220295

YUNG-MING KUO

A machine-learning-based prediction method of root fracture

J220296

Shyh-Kuang Ueng; Hsuan-Kai Huang; Chun-Chieh Chang

A piping method for indoor spaces

J220297

WEI-JEN WANG; Chun-Yu Chen; Chun-Chuan Chen

Multiclass Classification of EEG Motor Imagery Signals Based on Transfer Learning

J220299

Shyh-Chour Huang; Hsu-Dien Nguyen

Analysis for Stress Concentration at the Circular Holes Near Material Border by Extended Finite Element Method

J220302

Chih-Chen Liu; Su-Chi Fuh; Chen-Jie Lin; Tzu-Hua Huang

A Novel Facial Mask Detection Using Fast-YOLO Algorithm

J220303

Hsu-Yen Lin; Deng-Chuan Cai

The Research of the Value of the Influence of Mazu Belief on Folk Culture

J220304

Su-Chi Fuh; Chih-Chen Liu; Jia-Feng Jou; Tzu-Hua Huang

A Novel Soft Color Generative Adversarial Network for Image-to-Image Translation

J220307

Shu-Huei Wang

An innovative teaching model for the imagination and practice of Digital Crafts in the Future

J220308

Sheng-Joue Young; Yu-Jhih Chu

Field Electron Emission Properties of ZnO Nanorods With Pt nanoparticles adsorption

J220309

Liang-Wen Ji; Ruei-Cheng Lin; Yu-Ze Sie

Fabrication and Characterization of Self-Powered Gas Sensors Based on PENGs with Cr-Doped ZnO Nanorods

J220310

Hsiaokuang Wu

Multiplayer VR Game For Hakka Eel Larvas Catching Culture

J220311

Shih-Ching Yeh; Yi-Ru Wu; Hsuan Hu; Shao-Rong Sheng

Interactive Visualization System of 3-D digital Elevation Model For Mountain Collapse Simulation

J220312

Kuo-Kang Chen; Huan-Ming Chou

Development of innovative low-cost spectral sensing rapid screening Parkinson's disease fluorescence detector

J220328

Wan Shu Cheng; Hao-Xiang Chen; Chih-Shiung Yang

Development of an efficient algorithm for cell types identification

J220331

Chang-Tzuoh Wu; Chang-Shiann Wu; An-Zhe Li; Shuo-Fang Liu,; Ming-Hui Shao

A Study of Online Games on Students' Learning Attitude

J220332

Chang-Tzuoh Wu; Yu-Che Fu

GOJIAJI