



Southern Taiwan University of Science and Technology

2016

OCTOBER  
6-7  
TAINAN, TAIWAN

# 2016 International Symposium on Novel and Sustainable Technology



**Organizer:**

***Southern Taiwan University of Science and Technology***



**Sponsors:**

***Ministry of Education, Republic of China (Taiwan)***  
***Tainan City Government***

# 2016-ISNST Symposium Program

(E-13 Nien-Tzu International Conference Hall)

October 6 (Thursday)				
08:00-09:00	<b>Registration</b> (E-13 Lobby)			
09:00-09:30	<b>Opening Ceremony</b> (Room: E1301)  <b>Opening remark: Prof. Chein Tai, Chairman of Congress,</b> <i>The President of Southern Taiwan University of Science and Technology, Taiwan</i>			
09:30-10:30	<b>Keynote Lecture 1</b> (Room: E1301) <b>Prof. Ben Wang</b> <i>The Gwaltney Chair in Manufacturing Systems in the School of Industrial and Systems Engineering &amp; Professor of Materials Science and Engineering, Georgia Tech, USA.</i> <i>Title : The future of manufacturing</i> <b>Chair- Prof. Nai-Shang Liou</b>			<b>Poster Presentation 1 (Session B &amp; D)</b> (E-13 Lobby)
10:30-11:00	<b>Coffee Break</b>			
11:00 -12:00	<b>Keynote Lecture 2</b> (Room: E1301) <b>Prof. RNDr. Ladislav Kavan</b> <i>Head of Department of Electrochemical Materials, J. Heyrovský Institute of Physical Chemistry, the Czech Academy of Sciences, Czech Republic.</i> <i>Title : Nanomaterials based on Ti(IV) Oxides: Applications for Electrochemical Energy Conversion and Storage</i> <b>Chair- Prof. Nai-Shang Liou</b>			
11:50-13:30	<b>Lunch Break</b> (Room: E1302 · E1303)			
13:30-14:30	<b>Poster Presentation 2 (Session A &amp; C)</b> (E-13 Lobby)			
	<b>Session A</b> <b>Chair-Prof. Wei-Chin Chang</b>  Room: E1305	<b>Session B</b> <b>Chair-Prof. Shu-Chen Cheng</b>  Room: E604	<b>Session C</b> <b>Chair-Prof. Chi-Jo Wang</b>  Room: E602	<b>Session D</b> <b>Chair- Prof. Cheng-Ho Chen</b> <b>Chair- Prof. Ching-Feng Mao</b>  Room: E1301
14:30-15:00	<b>Invited Prof. Shuichi Torii</b> <i>Professor of Department of Mechanical System Engineering, Kumamoto University, Japan.</i> <i>Title: Thermal Wave Propagation Phenomenon in Very Thin Film</i>	<b>Invited Prof. Yo-Ping Huang</b> <i>Professor of Department of Electrical Engineering, National Taipei University of Technology, Taiwan</i> <i>Title: Applications and Perspective of IoT-based Healthcare Systems</i>	<b>Invited Prof. Numyoot Songthanapitak</b> <i>President of Rajamangala University of Technology Lanna, Thailand.</i> <i>Title: RMUTL'S Industrial Cooperation With Education In Thailand</i> <b>Chair-Prof. Chi-Jo Wang</b>	<b>Invited Prof. I-Lung Chien</b> <i>Professor of Department of Chemical Engineering, National Taiwan University, Taiwan.</i> <i>Title: Energy-Saving Design of Hybrid Extraction-Distillation System for Azeotropic Separation</i>
15:00-15:30	<b>Invited Prof. Hadi Sutanto</b> <i>Dean of School of Engineering, Atma Jaya Catholic University</i> <i>Title: Nanotechnology Development in Indonesia: An Overview</i>	<b>Invited Prof. Hiroyuki Tarumi</b> <i>Professor of Department of Electronics and Information Engineering, Kagawa University, Japan.</i> <i>Title: Supports for Remote Informal Communication and its Application for Music Performances</i>	<b>Invited Prof. Toshimitsu Morizane</b> <i>Professor of Department of Electrical and Electronic Systems, Osaka Institute of Technology, Japan.</i> <i>Title: Disc-Shaped Lim For Levitation And Traction Force Control Powered By Source Using Component Synchronous With Motor Speed</i> <b>Chair-Prof. Ming-Shyan Wang</b>	<b>Invited Prof. Tomohiro Hirano</b> <i>Professor of Department of Applied Chemistry, Tokushima University, Japan.</i> <i>Title: Stereoregular Poly(N-Alkylacrylamide)S – Radical Polymerization and Aqueous Phase Transition Behavior</i>
15:30-16:00	<b>Invited Prof. Akira Ueno</b> <i>Collage of Science and Engineering, Department of Mechanical Engineering, Ritsumeikan University</i> <i>Title: Introduction of Research Center for Energy-Innovation Materials and Fuel-Cell Systems in Ritsumeikan University</i>	<b>Coffee Break</b>	<b>Invited Prof. Tatsuo Mori</b> <i>Professot of Department of Electrical Engineering, Aichi Institute of Technology, Japan.</i> <i>Title: Air-Flow-Combined 2-Step Fabrication Process for Organic Perovskite Solar Cells</i> <b>Chair-Prof. Ching-Ming Hsu</b>	<b>Invited Prof. Hiroharu Ajiro</b> <i>Professor of Institute for Research Initiatives, Graduate School of Materials Science, Nara Institute of Science and Technology, Japan.</i> <i>Title: Molecular Technology for Functionalized Polymer Biomaterials Using Poly(Trimethylene Carbonate) and Polylactides</i>
16:00-16:30	<b>Coffee Break</b>	<b>Oral Prof. Shu-Chen Cheng</b> <i>Title: Assessment of the Difficulty of Items in Computer Adaptive Learning Platform for Calculus</i> <b>Prof. Yi-Zeng Hsieh</b> <i>Title: Design of Mobile-Aided system for ADHD Children</i> <b>Chih-Hao Chang</b> <i>Title: A PROPOSAL FOR REINFORCED PUBLIC E-SERVICE MARKETING MODEL</i> <b>Prof. Yu-Lin Jeng</b> <i>Title: INFORMATION PARSING SYSTEM FOR POPULAR AND FORWARD-LOOKING TREND ANALYTIC</i>	<b>Coffee Break</b>	<b>Coffee Break</b>
16:30-17:00	<b>Invited Prof. Hiroki Nagai</b> <i>Department of Applied Physics, School of Advanced Engineering, Kogakuin University</i> <i>Title: Novel Route to Cuprous Oxide Thin Films Fabrication on Glass Substrate Using Molecular Precursor Method</i> <b>Chair-Prof. Shuichi Torii</b>	<b>Oral Tajuddin Nur</b> <b>Chair-Prof. Jeen-Min Ling</b> Southern Taiwan University of Science and Technology <i>Title: Study The Effect Of Magnet Edge Slotting Of Fractional Structure To Reduce Cogging In Inset-Permanent Magnet Synchronous Generator</i>	<b>Oral Dr. Kuan-Ting Lee</b> Technology Research Development Department, Plastics Industry Development Center, Taichung <i>Title: A Cost-Effective, Magnetically Recyclable Photocatalyst, Pt Coupled ZnFe2O4, As A Breakthrough Photocatalyst for Fenton-Like Processes</i>	

17:00-17:30	<p><b>Invited</b>  <b>Prof. Tomhiro Yamaguchi</b>  <i>Department of Applied Physics,  Kogakuin University, Japan</i>  <i>Title: Study on Mist CVD Growth of IN2O3</i></p>	Academic exchange	<p><b>Oral</b>  <b>Ilham Ari Elbaith Zaeni</b>  <b>Chair-Prof. Shih-Chung Chen</b>  Southern Taiwan University Of Science And Technology  <i>Title: A SSVEP Based BCI On Mobile Robot Using Magnitude Squared Coherence And Fuzzy Tracking Algorithm</i>  <b>Yu-Te Huang</b>  Southern Taiwan University Of Science And Technology  <i>Title: Visual Servo Tracking Control By Camshift</i></p>	<p><b>Oral</b>  <b>Dr. Shanmuganathan Venkatesan</b>  National Cheng Kung University  <i>Title: Effects of Nanofillers on the Performance of Gel-State Dye-Sensitized Solar Cells</i></p>
17:30-18:00	<p><b>Oral</b>  <b>Dedy Ramdhani</b>  Southern Taiwan University of Science and Technology  <i>Title: Mechanical Simulation and Experimental of Stamping Metallic Bipolar Plates in Proton Exchange Membrane Fuel Cell (PEMFC)</i>  <b>Ran Fukami</b>  Kumamoto University  <i>Title: Extraction from Citrus Using Under water Shock Wave</i></p>	Academic exchange	<p><b>Oral</b>  <b>Hemin I. Azeez</b>  <b>Chair-Prof. Hung-Chi Yang</b>  Southern Taiwan University Of Science And Technology  <i>Title: Wearable Multi-Band Dipole Textile Antenna</i>  <b>Nana Sutarna</b>  Southern Taiwan University Of Science And Technology  <i>Title: Equivalence Between Fuzzy PID Controllers And Conventional PID Controllers</i></p>	<p><b>Oral</b>  <b>Prof. Chang-Ning Huang</b>  Southern Taiwan University of Science and Technology  <i>Title: Zinc Blende and Wurtzite Competition on &lt;111&gt;B-oriented InGaN/GaN Nanowires</i></p>
18:30	<b>Banquet</b> (Premier Restaurant)			
<b>October 7 (Friday)</b>				
	<b>Session A</b> <b>Chair-Prof. Yi-Chu Hsu</b>	<b>Session B</b> <b>Chair-Prof. Da-Huei Lee</b>	<b>Session C</b> <b>Chair - Prof. Ming-Shyan Wang</b>	<b>Session D</b> <b>Chair-Prof. Jian-Chyi Chen</b>
	Room: E1305	Room: E604	Room: E602	Room: E1301
09:00-09:30	<p><b>Oral</b>  <b>Martinez A. Daniela</b>  Southern Taiwan University of Science and Technology  <i>Title: Ethanol Green Chain in Fuel Cells Technology</i>  <b>T. Hiraoka</b>  Kumamoto University  <i>Title: Explosive Compaction of Al-SiC Composites Assisted with Thermite Reaction</i></p>	<p><b>Invited</b>  <b>Prof. Takeshi Fukusako</b>  <i>Professor of Department of Computer Science &amp; Electrical Engineering, Kumamoto University, Japan.</i>  <i>Title: Broadband circularly polarized antenna technologies and their applications.</i></p>	<p><b>Invited</b>  <b>Prof. Indrazno Siradjuddin</b>  <i>Professor of Department of Electrical Engineering Department, Malang State Polytechnic, Indonesia.</i>  <i>Title: One-Shot Learning Algorithm For Imitating Primitive Movements Of A Robot Actuator</i>  <b>Chair-Prof. Ming-Shyan Wang</b></p>	<p><b>Invited</b>  <b>Prof. Wen-Chien Lee</b>  <i>Professor of Department of Chemical Engineering, National Chung Cheng University, Taiwan.</i>  <i>Title: Functional inclusion bodies in recombinant Escherichia coli as biocatalysts</i></p>
09:30-10:00	<p><b>Oral</b>  <b>Quoc Thien Pham</b>  Southern Taiwan University of Science and Technology  <i>Title: Development of Loading System for Measuring Texture Profile Parameters of Fruit Flesh</i>  <b>Shota Matsumoto</b>  Kumamoto University  <i>Title: Study on Combustor and Heat Exchanger Using Waste Biomass Fuel</i></p>	<p><b>Oral</b>  <b>Jia-Hong Shu</b>  <i>Title: DESIGN OF EIGHT-ELEMENT MIMO ANTENNAS FOR NEXT GENERATION MOBILE COMMUNICATION SYSTEMS</i>  <b>Bo-Kai Zhang</b>  <i>Title: Design and Implementation of Digital Exam System</i></p>	<p><b>Oral</b>  <b>Agan Agary</b>  <b>Chair-Prof. Lian-Jou Tsai</b>  Southern Taiwan University Of Science And Technology  <i>Title: Design Of Flexible And Intelligent Li-Ion Battery Management System For Electric Bicycle</i>  <b>Chia-Chuan Kuo</b>  Southern Taiwan University Of Science And Technology  <i>Title: Communication Method And Apparatus Using Dc Power Feed</i>  <b>Sheng-Ting Huang</b>  Southern Taiwan University Of Science And Technology  <i>Title: Wireless Pseudo-Stereo Electronic Stethoscope</i></p>	<p><b>Invited</b>  <b>Prof. I-Son Ng</b>  <i>Professor of Department of Chemical Engineering, National Cheng Kung University, Taiwan.</i>  <i>Title: Functional Genes and Proteome Exploring from Extracellular Electron Transport (EET) Microbe: Shewanella Species</i></p>
10:00-10:20	Coffee Break	Coffee Break	Coffee Break	Coffee Break
10:20-10:50	<p><b>Oral</b>  <b>Ramli</b>  Southern Taiwan University of Science and Technology  <i>Title: Effects of Nanoscale Precipitation on the Material Property of the 7003 Aluminum Alloy</i>  <b>Yomei Hirata</b>  Kumamoto University  <i>Title: Development of the Pipe Velocity Measurement Method Combine with X-ray and PIV</i></p>	<p><b>Oral</b>  <b>Rong-Da Lin</b>  <i>Title: PIFA-TYPE WLAN MIMO ANTENNAS FOR USB DONGLE APPLICATIONS</i>  <b>Hao-xuan Wang</b>  <i>Title: DETECTION OF ENDO SYMPTOM BY USING IMAGE PROCESSING TECHNOLOGY IN PANORAMIC X-RAY FILM</i></p>	<p><b>Oral</b>  <b>You-Cheng Chang</b>  <b>Chair - Prof. Hsyi-En Cheng</b>  Southern Taiwan University of Science and Technology  <i>Title: Fabrication of ZnO/MgO Distributed Bragg Reflector</i></p>	<p><b>Invited</b>  <b>Prof. Yu-Shen Cheng</b>  <i>Professor of Department of Chemical and Materials Engineering, National Yunlin University of Science and Technology, Taiwan.</i>  <i>Title: Developing Biological Systems for Biorefinery of Ulva Lactuca</i></p>

<p><b>10:50-11:20</b></p>	<p><b>Oral</b>  <b>Wei-Chin Chen</b>  Southern Taiwan University of Science and Technology  <i>Title: The observations and analyses of Anodizing Treatment on the surface defect in 7XXX Aluminum Alloys</i>  <b>Shinichi Miyauchi</b>  Kumamoto University  <i>Title: The Effects of Center Body, Rotor-tip Interval and Propeller Profile on the Aerodynamic Characteristics of Micro Quad-rotor</i></p>	<p><b>Academic exchange</b></p>	<p><b>Oral</b>  <b>Chih-Yin Chiang</b>  <b>Chair - Prof. Hsyi-En Cheng</b>  Southern Taiwan University of Science and Technology  <i>Title: Simulation of Light Extraction Efficiency of Bulk-Gan Based Flip-Chip LEDs</i></p>	<p><b>Invited</b>  <b>Prof. Chi-Wei Lan</b>  <i>Professor of Chemical Engineering &amp; Materials Science, Yuan Ze University, Taiwan.</i>  <i>Title: Improvement of Polyhydroxyalkonates Production by Recombinant Ralstonia Eutropha from Waste Feestocks</i></p>
<p><b>11:20-12:00</b></p>	<p><b>Closing Ceremony</b>  (Room: E1301)  <b>Closing remark: Prof. Lee Kuen-Chorng</b>  <b>Vice President for Academic Affairs of Southern Taiwan University of Science and Technology</b>  <b>Chair- Prof. Nai-Shang Liou</b></p>			
<p><b>12:00-13:30</b></p>	<p><b>Lunch Break</b></p>			
<p><b>14:00-17:30</b></p>	<p><b>Excursion</b>  (Chimei Museum)</p>			

## **Congratulatory Speech from President of STUST**

October 06,2016

Distinguished guests, honorable scholars and professors, Ladies and Gentlemen, good morning:

First of all, on behalf of Southern Taiwan University of Science and Technology (STUST), I would like to express our warmest welcome for your participation in the “2016 International Symposium on Novel and Sustainable Technology (2016 ISNST)” ,and thank those who contribute to the success of this conference by sharing your professional competence and valued experience.

This is the fourteen year we hold this international conference. With our consistence, this conference has been made known to the academic public, and encouragingly more than two hundred will be presented this year. I would like to express my deep appreciation to twenty outstanding professors to give remarkable speeches. On this day, through the brainstorming, interactions, and discussions among the scholars and experts, we believe this conference will be successful and provide you more ideas.

Finally, I again deeply appreciate all the participants for your support and contribution to this conference. I would also like to express my sincere wishes for the success of the conference, and for your findings of new opportunities in the ever-growing realm of mechanical technology, electrical and computer engineering technology, chemical technology, and opto technology. Many thanks again for your coming~

Sincerely yours,

Chein Tai

President of Southern Taiwan University of Science and Technology

2016/10/06

# 2016 International Symposium on Novel and Sustainable Technology

## Keynote Lecture

**October 6 (Thursday)**

**Venue : E1301**

<b>Time</b>	<b>ID</b>	<b>Speaker</b>	<b>Title</b>	<b>Page</b>
<b>09:30-10:30</b>	<b>K-01</b>	<b>Prof. Ben Wang</b>	<b>The Future of Manufacturing – My Perspective Georgia Institute of Technology, USA</b>	<b>K-01</b>
<b>10:50- 11:50</b>	<b>K-02</b>	<b>Prof. RNDr. Ladislav Kavan</b>	<b>Nanomaterials Based on Ti(IV) Oxides: Applications for Electrochemical Energy Conversion and Storage The Czech Academy of Sciences, Czech</b>	<b>K-02</b>

## Session A: Invited Lecture

<b>October 6 (Thursday)</b>				
<b>Venue : E1305</b>				
<b>Time</b>	<b>ID</b>	<b>Speaker</b>	<b>Title</b>	<b>Page</b>
<b>14:30 –15:00</b>	<b>I-01</b>	<b>Prof. Shuichi Torii</b>	<b>Thermal Wave Propagation Phenomenon in Very Thin Film Kumamoto University, Japan</b>	<b>I-01</b>
<b>15:00 –15:30</b>	<b>I-02</b>	<b>Prof. Hadi Sutanto</b>	<b>Nanotechnology Development in Indonesia: An Overview Atma Jaya Catholic University, Indonesia</b>	<b>I-02</b>
<b>15:30 –16:00</b>	<b>I-03</b>	<b>Prof. Akira Ueno</b>	<b>Introduction of Research Center for Energy-Innovation Materials and Fuel-Cell Systems in Ritsumeikan University Ritsumeikan University, Japan</b>	<b>I-06</b>
<b>16:30 –17:00</b>	<b>I-04</b>	<b>Prof. Hiroki Nagai</b>	<b>Novel Route to Cuprous Oxide Thin Films Fabrication on Glass Substrate Using Molecular Precursor Method Kogakuin University, Japan</b>	<b>I-07</b>
<b>17:00 –17:30</b>	<b>I-05</b>	<b>Prof. Tomohiro Yamaguchi</b>	<b>Study on Mist CVD Growth of In<sub>2</sub>O<sub>3</sub> Kogakuin University, Japan</b>	<b>I-08</b>

## Session B: Invited Lecture

<b>October 6 (Thursday)</b>				
<b>Venue : E604</b>				
<b>Time</b>	<b>ID</b>	<b>Speaker</b>	<b>Title</b>	<b>Page</b>
<b>14:30 –15:00</b>	<b>I-06</b>	<b>Prof.Yo-Ping Huang</b>	<b>Applications and Perspective of IoT-based Healthcare Systems National Taipei University of Technology, Taiwan</b>	<b>I-10</b>
<b>15:00 –15:30</b>	<b>I-07</b>	<b>Prof. Hiroyuki Tarumi</b>	<b>Supports for Remote Informal Communication and its Application for Music Performances Kagawa University, Japan</b>	<b>I-11</b>

<b>October 7 (Friday)</b>				
<b>Venue : E604</b>				
<b>Time</b>	<b>ID</b>	<b>Speaker</b>	<b>Title</b>	<b>Page</b>
<b>9:00 –9:30</b>	<b>I-08</b>	<b>Prof. Takeshi Fukusako</b>	<b>Development of Wideband Circularly Polarized Antennas Kumamoto University, Japan</b>	<b>I-12</b>



## Session C: Invited Lecture

<b>October 6 (Thursday)</b>				
<b>Venue : E602</b>				
<b>Time</b>	<b>ID</b>	<b>Speaker</b>	<b>Title</b>	<b>Page</b>
<b>14:30 –15:00</b>	<b>I-09</b>	<b>Prof. Numyoot Songthanapitak</b>	<b>RMUTL's Industrial Cooperation with Education in Thailand Rajamangala University of Technology Lanna, Thailand</b>	<b>I-13</b>
<b>15:00 –15:30</b>	<b>I-10</b>	<b>Prof. Toshimitsu Morizane</b>	<b>Disc-shaped LIM for Levitation and Traction Force Control Powered by Source Using Component Synchronous with Motor Speed Osaka Institute of Technology, Japan</b>	<b>I-14</b>
<b>15:30 –16:00</b>	<b>I-11</b>	<b>Prof. Tatsuo Mori</b>	<b>Air-Flow-Combined 2-Step Fabrication Process for Organic Perovskite Solar Cells Aichi Institute of Technology, Japan</b>	<b>I-15</b>

<b>October 7 (Friday)</b>				
<b>Venue : E602</b>				
<b>Time</b>	<b>ID</b>	<b>Speaker</b>	<b>Title</b>	<b>Page</b>
<b>9:00 –9:30</b>	<b>I-12</b>	<b>Prof. Indrazno Siradjuddin</b>	<b>One-shot Learning Algorithm for Imitating Primitive Movements of a Robot Actuator Malang State Polytechnic, Indonesia</b>	<b>I-17</b>

## Session D: Invited Lecture

### October 6 (Thursday) Venue : E1301

Time	ID	Speaker	Title	Page
14:30 –15:00	I-13	Prof. I-Lung Chien	Energy-Saving Design of Hybrid Extraction-Distillation System for Azeotropic Separation National Taiwan University, Taiwan	I-21
15:00 –15:30	I-14	Prof. Tomohiro Hirano	Stereoregular Poly(N-Alkylacrylamide)S – Radical Polymerization and Aqueous Phase Transition Behavior Tokushima University, Japan	I-22
15:30 –16:00	I-15	Prof. Hiroharu Ajiro	Molecular Technology for Functionalized Polymer Nara Institute of Science and Technology, Japan	I-24

### October 7 (Friday) Venue : E1301

Time	ID	Speaker	Title	Page
9:00 –9:30	I-16	Prof. Wen-Chien Lee	Functional inclusion bodies in recombinant Escherichia coli as biocatalysts National Chung Cheng University, Taiwan	I-26
9:30 –10:00	I-17	Prof. I-Son Ng	Functional Genes and Proteome Exploring from Extracellular Electron Transport (EET) Microbe: Shewanella Species National Cheng Kung University, Taiwan	I-27
10:20 –10:50	I-18	Prof. Yu-Shen Cheng	Developing Biological Systems for Biorefinery of Ulva Lactuca National Yunlin University of Science and Technology, Taiwan	I-28
10:50 –11:20	I-19	Prof. Chi-Wei Lan	Improvement of Polyhydroxyalkonates Production by Recombinant Ralstonia Eutropha from Waste Feestocks Yuan Ze University, Taiwan	I-29

**Session A : Advanced Manufacturing Science and  
Technology  
Oral Session**

**October 6 (Thursday)**

**Venue : E1305**

<b>Time</b>	<b>ID</b>	<b>Authors</b>	<b>Title and Affiliation</b>	<b>Page</b>
17:30-17:45	A-O-001	<u>Dedy Ramdhani</u> , Wei-Chin Chang, Yu-Chu Li	Mechanical Simulation and Experimental of Stamping Metallic Bipolar Plates in Proton Exchange Membrane Fuel Cell (PEMFC) Southern Taiwan University of Science and Technology	A-01
17:45-17:60	A-O-002	<u>Ran Fukami</u> , Shigeru Tanaka, Yoshie Tsujikawa, Kazuyuki Hokamoto, Atsushi Yasuda, Shigeru Itoh	Extraction from Citrus Using Under water Shock Wave  Kumamoto University	A-03

**October 7 (Friday)**

**Venue : E1305**

<b>Time</b>	<b>ID</b>	<b>Authors</b>	<b>Title and Affiliation</b>	<b>Page</b>
9:00-9:15	A-O-003	<u>Martinez A.</u> <u>Daniela</u> , Wei-Chin Chang	Ethanol Green Chain in Fuel Cells Technology Southern Taiwan University of Science and Technology	A-04
9:15-9:30	A-O-004	<u>T. Hiraoka</u> , T. Yamamoto, K. Oka, K. Hokamoto	Explosive Compaction of Al-SiC Composites Assisted with Thermite Reaction  Kumamoto University	A-06

9:30-9:45	A-O-005	<u>Quoc Thien Pham</u> , Xin-Jia Huang, Nai-Shang Liou	Development of Loading System for Measuring Texture Profile Parameters of Fruit Flesh Southern Taiwan University of Science and Technology	A-07
9:45-10:00	A-O-006	<u>Shota Matsumoto</u> , Shuichi Torii	Study on Combustor and Heat Exchanger Using Waste Biomass Fuel Kumamoto University	A-09
10:20-10:35	A-O-007	<u>Ramli, C.C. Wu</u> , Wei-Chih Chen , Ya-Hsiu Hung	Effects of Nanoscale Precipitation on the Material Property of the 7003 Aluminum Alloy Southern Taiwan University of Science and Technology	A-11
10:35-10:50	A-O-008	<u>Yomei Hirata</u> , Shuichi Torii	Development of the Pipe Velocity Measurement Method Combine with X-ray and PIV Kumamoto University	A-13
10:50-11:05	A-O-009	C. C. Wu, <u>Wei-Chih Chen</u> , Ya-Hsiu Hung	Effects of Secondary Aging Treatment on the Microstructure and Hardness of the 7003 Aluminum Alloy Southern Taiwan University of Science and Technology	A-15
11:05-11:20	A-O-010	<u>Shinichi Miyauchi</u> , Shohei Mitsuzaki, Mizue Munekata, Hiroyuki Yoshikawa	The Effects of Center Body, Rotor-tip Interval and Propeller Profile on the Aerodynamic Characteristics of Micro Quad-rotor Kumamoto University	A-16

## Poster Session

October 6 (Thursday)

Venue : E-13 Lobby

ID	Authors	Title and Affiliation	Page
A-P-01	<u>Xin-Dian Lin</u> , Chia-Chin Chang,	The Measurement of Li-Ion Diffusion of LiFePO <sub>4</sub> under Different Temperature	A-18

	Lung-Hao Hu	Southern Taiwan University of Science and Technology	
A-P-02	<u>I-Chih Wu</u> , Min-Haw Wang, Ling-Sheng Jang, Yi-Chu Hsu	Novel methods for defect localization of WLCSP after board level reliability tests National Cheng Kung University	A-20
A-P-03	<u>Po-Chia Huang</u> , Jow-Lay Huang, Sheng-Chang Wang, Muhammad Omar Shaikh	SNS and SNS2 Nanocrystals as Effective Electrocatalysts for the Hydrogen Evolution Reaction National Cheng Kung University	A-25
A-P-04	<u>Chia-Yuan Chou</u> , Sin-Wei Wu, Keh-moh Lin	Fabrication and characterization of ITO/AgNW/ITO and ZnO/AgNW/ZnO hybrid transparent electrodes Southern Taiwan University of Science and Technology	A-27
A-P-05	<u>Yung-Chuan Kang</u> , Sin-Bo Wang, Keh-moh Lin	Design and implementation of optical inspection system for curved lens Southern Taiwan University of Science and Technology	A-29
A-P-06	<u>F. Kino</u> , H. Oda, S. Tanaka, K. Hokamoto	Synthesis of Titanium Carbide in Liquid Paraffin through Metal Wire Explosion Kumamoto University	A-31
A-P-07	<u>T. Yamashita</u> , S. Otsuka, D. Inao, S. Tanaka, K. Hokamoto	Underwater Explosive Welding of Thin Stainless Steel on Copper Plate Kumamoto University	A-32
A-P-08	<u>Chia-Ling Wu</u> , Po-Chia Huang, Sanjaya Brahma, Jow-Lay Huang, Sheng-Chang Wang	One-Step Hot-Injection Method to Synthesize MoS <sub>2</sub> @MoO <sub>2</sub> Composite Electrocatalysts for Hydrogen Evolution Reaction National Cheng Kung University	A-33
A-P-09	<u>H. Ikeda</u> , Y. Kunita, K. Shimomiya, M. Oshita, K. Hokamoto	Fabrication of Unidirectional Porous Metal through Explosive Compaction Using Modified Cylindrical Geometry Kumamoto University	A-34
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### Oral Session

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**Venue : E604**

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		Ming-Yang Huang, Guan-Hong Liu, Yu-Fang Kuo, Nung-Hsiang Lin, Ting-Lan Lin, Szu-Yin Lin, Shaou-Gang Miaou, Jocelyn Flores Villaverde and Shih-Lun Chen	IMAGE PROCESSING TECHNOLOGY IN PANORAMIC X-RAY FILM	
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B-P-003	Tsai-Rong Chang, Ding-Horng Chen and Guan-Yin Chen	A LOW-COST INTERACTIVE 3D MEDICAL IMAGE DISPLAY SYSTEM	B-19
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### Oral Session

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<b>C-P-018</b>	<b>Tomohiro Yamaguchi, Takuya Kobayashi, Keisuke Tanuma, Hiroki Nagai, Takeyoshi Onuma, Mitsunobu Sato and Tohru Honda</b>	<b>Study on Mist CVD Growth of In<sub>2</sub>O<sub>3</sub> Kogakuin University, Japan</b>	<b>C-49</b>
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