

# GTSD2018 PROGRAM OUTLINE

## IMPORTANT INFORMATION FOR ALL PARTICIPANTS

- Please wear your GTSD2018 Conference name tag at all times to gain admission to presentation in break-out rooms.
- Name tags and tickets are required for Conference Gala Banquet.
- If you need any information about the conference, please ask the student helpers or committee members for assistance.

## FRIDAY, NOVEMBER 23<sup>rd</sup> 2018

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<b>07:30am - 05:30pm</b>	<b>Registration</b> Venue: Conference Foyer , 6 <sup>th</sup> Floor, The Center Building								
<b>08:30am - 09:10am</b>	<b>Opening Ceremony</b> Venue: Room No. A1-602, 6 <sup>th</sup> Floor, The Center Building <b>Introduction</b> <b>Opening Welcome</b>								
<b>09:10am - 9:40am</b>	<b>Keynote Address 1</b>								
<b>09:40am - 10:10am</b>	<b>Keynote Address 2</b>								
<b>10:10am - 10:30am</b>	<b>Morning Tea break</b> Venue: Conference Foyer, 6 <sup>th</sup> Floor, The Center Building								
<b>10:30am - 12:00am</b>	<table><tr><td><b>Breakout session No.1 (BS-1)</b> Topic: <b>Special Session (Student authors)</b> Venue: Room A1-602</td><td><b>Breakout session No.2 (BS-2)</b> Topic: <b>Renewable Energy and Power System Engineering</b> Venue: Room A1-1207</td></tr><tr><td><b>Breakout session No.3 (BS-3)</b> Topic: <b>Automotive and Mechanical Engineering</b> Venue: Room A1-1202</td><td><b>Breakout session No.4 (BS-4)</b> Topic: <b>Mechatronics Engineering</b> Venue: Room A1-1203</td></tr><tr><td><b>Breakout session No.5 (BS-5)</b> Topic: <b>Applied Physics and Thermal Engineering</b> Venue: Room A1-1204</td><td><b>Breakout session No.6 (BS-6)</b> Topic: <b>Sustainable Economics and Educational Development</b> Venue: Room A1-601B</td></tr><tr><td><b>Breakout session No.7 (BS-7)</b> Topic: <b>Chemical and Environmental Engineering</b> Venue: Room A1-1205</td><td><b>Breakout session No.8 (BS-8)</b> Topic: <b>Electronics Engineering</b> Venue: Room A1-1206</td></tr></table>	<b>Breakout session No.1 (BS-1)</b> Topic: <b>Special Session (Student authors)</b> Venue: Room A1-602	<b>Breakout session No.2 (BS-2)</b> Topic: <b>Renewable Energy and Power System Engineering</b> Venue: Room A1-1207	<b>Breakout session No.3 (BS-3)</b> Topic: <b>Automotive and Mechanical Engineering</b> Venue: Room A1-1202	<b>Breakout session No.4 (BS-4)</b> Topic: <b>Mechatronics Engineering</b> Venue: Room A1-1203	<b>Breakout session No.5 (BS-5)</b> Topic: <b>Applied Physics and Thermal Engineering</b> Venue: Room A1-1204	<b>Breakout session No.6 (BS-6)</b> Topic: <b>Sustainable Economics and Educational Development</b> Venue: Room A1-601B	<b>Breakout session No.7 (BS-7)</b> Topic: <b>Chemical and Environmental Engineering</b> Venue: Room A1-1205	<b>Breakout session No.8 (BS-8)</b> Topic: <b>Electronics Engineering</b> Venue: Room A1-1206
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<b>12:00am - 01:30am</b>	<b>Lunch break</b> Venue: Conference Foyer, 6 <sup>th</sup> Floor, The Center Building								
<b>01:30pm - 03:30pm</b>	<b>Breakout sessions (BS-1 to BS-8)</b> Topics and Venues: Same as morning								
<b>03:30pm - 03:50pm</b>	<b>Afternoon Tea break</b> Venue: At session sites, respectively								
<b>03:50pm - 05:30pm</b>	<b>Breakout sessions (BS-1 to BS-6)</b> Topics and Venues: Same as morning								
<b>06:00pm - 08:00pm</b>	<b>Gala dinner</b> Venue: Kim Dung Restaurant, No. 02, Dang Van Bi Street, Thu Duc District, HCMC								

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## SATURDAY, NOVEMBER 24<sup>th</sup> 2018

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<b>08:00am - 08:30am</b>	<b>Registration</b> Venue: Conference Foyer, 6 <sup>th</sup> Floor, The Center Building	
<b>08:30am - 08:40am</b>	<b>Opening Welcome</b> <b>Representative of Board of President, HCMUTE</b> Venue: Room No. A1-602, 6 <sup>th</sup> Floor, The Center Building	
<b>08:40am - 09:05am</b>	<b>Keynote Address 3</b> Venue: Room No. A1-602, 6 <sup>th</sup> Floor, The Center Building	
<b>09:05am - 09:30am</b>	<b>Keynote Address 4</b> Venue: Room No. A1-602, 6 <sup>th</sup> Floor, The Center Building	
<b>09:30am - 09:55am</b>	<b>Keynote Address 5</b> Venue: Room No. A1-602, 6 <sup>th</sup> Floor, The Center Building	
<b>09:55am - 10:15am</b>	<b>Morning Tea break</b> Venue: Conference Foyer , 6 <sup>th</sup> Floor, The Center Building	
<b>10:15am - 12:15pm</b>	<b>Breakout session No.2 (BS-2)</b> Topic: <b>Renewable Energy and Power System Engineering</b> Venue: Room A1-1207	<b>Breakout session No.3 (BS-3)</b> Topic: <b>Automotive and Mechanical Engineering</b> Venue: Room A1-1202
	<b>Breakout session No.9A (BS-9A)</b> Topic: <b>Electrical Engineering</b> Venue: Room A1-1203	<b>Breakout session No.9B (BS-9B)</b> Topic: <b>Electrical Engineering</b> Venue: Room A1-1204
	<b>Breakout session No.10A (BS-10A)</b> Topic: <b>Applied Science and Information Engineering</b> Venue: Room A1-1205	<b>Breakout session No.10B (BS-10B)</b> Topic: <b>Applied Science and Information Engineering</b> Venue: Room A1-1206
	<b>Breakout session No.11A (BS-11A)</b> Topic: <b>Civil Engineering</b> Venue: Room A1-602	<b>Breakout session No.11B (BS-11B)</b> Topic: <b>Civil Engineering</b> Venue: Room A1-601B
	<b>12:15pm - 01:30pm</b>	<b>Lunch</b> Venue: Conference Foyer, 6 <sup>th</sup> Floor, The Center Building

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# DETAILED CONFERENCE PROGRAM

## FRIDAY, NOVEMBER 23<sup>rd</sup> 2018

### 07:30am Registration

Venue: Conference Foyer, 6<sup>th</sup> Floor, The Center Building

### 08:30am Opening Ceremony

Venue: Room No. A1-602, 6<sup>th</sup> Floor, The Center Building

#### Introduction

#### Opening Welcome

*Prof. Do Van Dung*, President, HCMUTE, Vietnam

*Prof. Yan-Kuin Su*, Former President of Kun Shan University, Taiwan

#### Guests of Honors

Representative of Ministry of Education and Training, Vietnam

#### Vote of Thanks

*Assoc. Prof. Dr. Ngo Van Thuyen*, University Council Chairman, HCMUTE, Vietnam

### 09:10am Keynote Address

Venue: Room No. A1-602, 6<sup>th</sup> Floor, The Center Building

Chair: *Assoc. Prof. Dr. Le Hieu Giang*, HCMUTE, Vietnam

#### Keynote Address 1:

#### **Taiwan Energy Transition – The Challenges and Opportunities**

*Prof. Chang-Ren Chen*

Department of Mechanical Engineering, Kun Shan University, Taiwan

#### Keynote Address 2:

#### **Saliency-based Identification of Debris Flows from Aerial Photographs**

*Prof. Kai-Yew Lum*

Department of Electrical Engineering, National Chi Nan University, Taiwan

### 10:10am Morning Tea

Venue: Conference Foyer, 6<sup>th</sup> Floor, The Center Building

### 10:30am - 05:30pm Paper Presentations - Breakout Sessions

(12:00am - 01:30pm Lunch break)

(03:30pm - 03:50pm Afternoon Tea break)

(06:00pm - 08:00pm Gala dinner)

## **SATURDAY, NOVEMBER 24<sup>th</sup> 2018**

### **08:00am Registration**

Venue: Conference Foyer, 6th Floor, The Center Building

### **08:30am Opening Welcome**

Venue: Room No. A1-602, 6<sup>th</sup> Floor, The Center Building

### **08:40am Keynote Address**

Venue: Room No. A1-602, 6<sup>th</sup> Floor, The Center Building

Chair: **Assoc. Prof. Dr. Hoang An Quoc**, HCMUTE, Vietnam

#### **Keynote Address 3:**

**Most Sustainable, Lowest Cost and Highly Efficient – First Solar’s Rapid Innovation Approach in Thin-Film Photovoltaics**

***Dipl.-Ing. Andreas Wade (VDI, VDE)***

Deputy Operating Agent IEA PVPS Task 12,

President International Thin-Film Solar Industry Association, PVthin

#### **Keynote Address 4:**

**Measurement of diesel emissions on real roads and construction fields by pems**

***Prof. Jau Huai Lu***

Department of Mechanical Engineering, National Chung Hsing University, Taiwan

#### **Keynote Address 5:**

**iCloud-Based Electrical Distribution Controlling System with “ABB Ability” for Power Management**

***Mr. Cao Phu Hai***

Product Manager of Medium – Low Voltage Products, ABB in Vietnam

### **09:55am Morning Tea**

Venue: Conference Foyer, 6th Floor, The Center Building

### **10:15am - 12:15pm Paper Presentations - Breakout Sessions**

*(12:15pm - 01:30pm Lunch)*

# SESSION CHAIRS

**FRIDAY, NOVEMBER 23<sup>rd</sup> 2018**

<b>Breakout session No.1 (BS-1)</b> <i>Topic: <b>Special Session (Student authors)</b></i> <i>Venue: Room A1-602</i>	10:30am – 12:00am	<b>Prof. Dr. Wen-June Wang, Taiwan</b> <b>Assoc. Prof. Dr. Nguyen Hoai Son, Vietnam</b> <b>Assoc. Prof. Dr. Do Thanh Trung, Vietnam</b>
	01:30pm – 03:30pm	<b>Prof. Dr. Wen-June Wang, Taiwan</b> <b>Assoc. Prof. Dr. Le Chi Kien, Vietnam</b> <b>Assoc. Prof. Dr. Do Thanh Trung, Vietnam</b>
	03:50pm – 05:30pm	<b>Prof. Dr. Wen-June Wang, Taiwan</b> <b>Assoc. Prof. Dr. Le Chi Kien, Vietnam</b> <b>Assoc. Prof. Dr. Do Thanh Trung, Vietnam</b>
<b>Breakout session No.2 (BS-2)</b> <i>Topic: <b>Renewable Energy and Power System Engineering</b></i> <i>Venue: Room A1-1207</i>	10:30am – 12:00am	<b>Prof. Dr. Nob. Harada, Japan</b> <b>Dr. Le My Ha, Vietnam</b>
	01:30pm – 03:30pm	<b>Prof. Dr. Jeihoon Baek, Korea</b> <b>Assoc. Prof. Dr. Quyen Huy Anh, Vietnam</b>
	03:50pm – 05:30pm	<b>Assoc. Prof. Dr. Dinh Thanh Viet, Vietnam</b> <b>Assoc. Prof. Dr. Truong Viet Anh, Vietnam</b>
<b>Breakout session No.3 (BS-3)</b> <i>Topic: <b>Automotive and Mechanical Engineering</b></i> <i>Venue: Room A1-1202</i>	10:30am – 12:00am	<b>Dr. Nguyen Van Trang, Vietnam</b> <b>Dr. Le Thanh Phuc, Vietnam</b>
	01:30pm – 03:30pm	<b>Prof. Dr. Chang-Ren Chen, Taiwan</b> <b>Assoc. Prof. Dr. Pham Huy Hoang, Vietnam</b>
	03:50pm – 05:30pm	<b>Assoc. Prof. Dr. Atsushi Mitani, Japan</b> <b>Assoc. Prof. Dr. Tran Ngoc Dam, Vietnam</b>
<b>Breakout session No.4 (BS-4)</b> <i>Topic: <b>Mechatronics Engineering</b></i> <i>Venue: Room A1-1203</i>	10:30am – 12:00am	<b>Assoc. Prof. Dr. Nguyen Truong Thinh, Vietnam</b> <b>Dr. Nguyen Vu Lan, Vietnam</b>
	01:30pm – 03:30pm	<b>Prof. Dr. Jau-Huai Lu, Taiwan</b> <b>Dr. Vu Quang Huy, Vietnam</b>
	03:50pm – 05:30pm	<b>Assoc. Prof. Dr. Nguyen Ngoc Phuong, Vietnam</b> <b>Assoc. Prof. Dr. Truong N. Luan Vu, Vietnam</b>
<b>Breakout session No.5 (BS-5)</b> <i>Topic: <b>Applied Physics and Thermal Engineering</b></i> <i>Venue: Room A1-1204</i>	10:30am – 12:00am	<b>Prof. Dr. Yueh-Heng Li, Taiwan</b> <b>Dr. Le Minh Nhut, Vietnam</b>
	01:30pm – 03:30pm	<b>Assoc. Prof. Dr. Le Anh Duc, Vietnam</b> <b>Dr. Nguyen Xuan Vien, Vietnam</b>
	03:50pm – 05:30pm	<b>Prof. Dr. Jau-Huai Lu, Taiwan</b> <b>Assoc. Prof. Dr. Dang Thanh Trung, Vietnam</b>
<b>Breakout session No.6 (BS-6)</b> <i>Topic: <b>Sustainable Economics and Educational Development</b></i> <i>Venue: Room A1-601B</i>	10:30am – 12:00am	<b>Dr. Dang Quang Vang, Vietnam</b> <b>Dr. Nguyen Quoc Khanh, Vietnam</b>
	01:30pm – 03:30pm	<b>Dr. Nguyen Thi Thanh Van, Vietnam</b> <b>Dr. Nguyen Khac Hieu, Vietnam</b>
	03:50pm – 05:30pm	<b>Assoc. Prof. Dr. Ngo Anh Tuan, Vietnam</b> <b>Assoc. Prof. Dr. Bui Van Hong, Vietnam</b>
<b>Breakout session No.7 (BS-7)</b> <i>Topic: <b>Chemical and Environmental Engineering</b></i> <i>Venue: Room A1-1205</i>	10:30am – 12:00am	<b>Prof. Dr. Long-Full Lin, Taiwan</b> <b>Dr. Nguyen Thai Anh, Vietnam</b>
	01:30pm – 03:30pm	<b>Assoc. Prof. Dr. Nguyen Van Suc, Vietnam</b> <b>Dr. Trinh Khanh Son, Vietnam</b>
	03:50pm – 05:30pm	<b>Dr. Vo Thi Nga, Vietnam</b> <b>Dr. Nguyen Tan Dung, Vietnam</b>
<b>Breakout session No.8 (BS-8)</b> <i>Topic: <b>Electronics Engineering</b></i> <i>Venue: Room A1-1206</i>	10:30am – 12:00am	<b>Prof. Dr. Kai-Yew Lum, Taiwan</b> <b>Assoc. Prof. Dr. Tran Thu Ha, Vietnam</b>
	01:30pm – 03:30pm	<b>Prof. Dr. Kai-Yew Lum, Taiwan</b> <b>Dr. Vo Minh Huan, Vietnam</b>
	03:50pm – 05:30pm	<b>Assoc. Prof. Dr. Nguyen Minh Tam, Vietnam</b> <b>Assoc. Prof. Dr. Nguyen Thanh Hai, Vietnam</b>

## SATURDAY, NOVEMBER 24<sup>th</sup> 2018

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<b>Breakout session No.2 (BS-2)</b>	10:15am – 12:15pm	<b>Assoc. Prof. Dr. Vo Viet Cuong, Vietnam</b> <b>Assoc. Prof. Dr. Truong Dinh Nhon, Vietnam</b>
<i>Topic: <b>Renewable Energy and Power System Engineering</b></i>		
<i>Venue: Room A1-1207</i>		
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<b>Breakout session No.3 (BS-3)</b>	10:15am – 12:15pm	<b>Assoc. Prof. Dr. Dang Thien Ngon, Vietnam</b> <b>Assoc. Prof. Dr. Pham Huy Tuan, Vietnam</b>
<i>Topic: <b>Automotive and Mechanical Engineering</b></i>		
<i>Venue: Room A1-1202</i>		
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<b>Breakout session No.9A (BS-9A)</b>	10:15am – 12:15pm	<b>Prof. Dr. Hojin Jeong, Korea</b> <b>Assoc. Prof. Dr. Phan Van Ca, Vietnam</b>
<i>Topic: <b>Electrical Engineering</b></i>		
<i>Venue: Room A1-1203</i>		
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<b>Breakout session No.9B (BS-9B)</b>	10:15am – 12:15pm	<b>Prof. Dr. Nob. Harada, Japan</b> <b>Dr. Quach Thanh Hai, Vietnam</b>
<i>Topic: <b>Electrical Engineering</b></i>		
<i>Venue: Room A1-1204</i>		
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<b>Breakout session No.10A (BS-10A)</b>	10:15am – 12:15pm	<b>Prof. Dr. Hsuan-Ming Feng, Taiwan</b> <b>Dr. Le Van Vinh, Vietnam</b>
<i>Topic: <b>Applied Science and Information Engineering</b></i>		
<i>Venue: Room A1-1205</i>		
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<b>Breakout session No.10B (BS-10B)</b>	10:15am – 12:15pm	<b>Assoc. Prof. Dr. Duong Tuan Anh, Vietnam</b> <b>Dr. Thanatip Chankong, Thailand</b>
<i>Topic: <b>Applied Science and Information Engineering</b></i>		
<i>Venue: Room A1-1206</i>		
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<b>Breakout session No.11A (BS-11A)</b>	10:15am – 12:15pm	<b>Assoc. Prof. Dr. Nguyen Trung Kien, Vietnam</b> <b>Dr. Chau Dinh Thanh, Vietnam</b>
<i>Topic: <b>Civil Engineering</b></i>		
<i>Venue: Room A1-602</i>		
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<b>Breakout session No.11B (BS-11B)</b>	10:15am – 12:15pm	<b>Assoc. Prof. Dr. Phan Duc Hung, Vietnam</b> <b>Dr. Tran Vu Tu, Vietnam</b>
<i>Topic: <b>Civil Engineering</b></i>		
<i>Venue: Room A1-601B</i>		

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## DAY 1 (FRIDAY, NOVEMBER 23<sup>rd</sup> 2018)

### BS-1 Special Session (Student authors, 15 papers)

Venue: Room No. A1-602, 6<sup>th</sup> Floor, The Center Building

Friday, November 23<sup>rd</sup> 2018

#### 10:40am - 12:00am

**Chair:** Prof. Dr. Wen-June Wang, National Central University, Taiwan

Assoc. Prof. Dr. Nguyen Hoai Son, Ho Chi Minh City University of Technology and Education, Vietnam

Assoc. Prof. Dr. Do Thanh Trung, Ho Chi Minh City University of Technology and Education, Vietnam

- (1) **18-Optimal Design of a New Compliant XY Micropositioning Stage for Nanoindentation Tester Using Efficient Approach of Taguchi Method, Response Surface Method and NSGA-II**, Minh Phung Dang, Thanh Phong Dao and Hieu Giang Le
- (2) **26-Real-Time Self-Driving Car Navigation Using Deep Neural Network**, Truong-Dong Do, Minh-Thien Duong, Quoc-Vu Dang and My-Ha Le
- (3) **46-Select Location for Load Shedding in Power System**, Trong Nghia Le, Huy Anh Quyen, Thi Thanh Binh Phan, Ngoc Au Nguyen and Tan Phung Trieu
- (4) **58-Risk management: Awareness, Identification and Mitigation in Public Private Partnerships of Technical infrastructure Projects in Da Nang**, Thi Trang Pham and Cao Tho Phan

#### 01:30pm - 03:30pm

**Chair:** Prof. Dr. Wen-June Wang, National Central University, Taiwan

Assoc. Prof. Dr. Le Chi Kien, Ho Chi Minh City University of Technology and Education, Vietnam

Assoc. Prof. Dr. Do Thanh Trung, Ho Chi Minh City University of Technology and Education, Vietnam

- (1) **60-The Effect of Inlet Design on the Flow Uniformity Inside ESP**, Hsin-I Chou, Ching-Ju Liao and Jau-Huai Lu
- (2) **90-Design of Green Agriculture System Using Internet of Things and Image Processing Techniques**, Ha Anh Minh Tran, Ha Quang Thinh Ngo, Thanh Phuong Nguyen and Hung Nguyen
- (3) **94-The Design of an VIAM-USV1000 Unmanned Surface Vehicle for Environmental Monitoring Applications**, Ngoc-Huy Tran, Tu-Cuong Nguyen, Van-Tao Tran, Vuong-Chi Nguyen and Thanh-Nam Nguyen
- (4) **109-Optimization of Heterogeneous Electro Fenton Process for Textile Wastewater Treatment**, Nguyen Duc Dat Duc, Le Thi Thuy An and Nguyen Tan Phong
- (5) **174-Designing Greener Real Time Controllers**, Long Quang Tran, PJ Radcliffe and Liuping Wang
- (6) **177-Research on Braking Force Distribution in Regenerative Braking System Apply to Conventional Vehicle**, Tung Tuan Duong, Dung Van Do and Thinh Truong Nguyen

#### 03:50pm - 05:30pm

**Chair:** Prof. Dr. Wen-June Wang, National Central University, Taiwan

Assoc. Prof. Dr. Le Chi Kien, Ho Chi Minh City University of Technology and Education, Vietnam

Assoc. Prof. Dr. Do Thanh Trung, Ho Chi Minh City University of Technology and Education, Vietnam

- (1) **183-Application of Machine Learning in Forecasting Energy Usage of Building Design**, Truong Xuan Dan and Phan Nguyen Ky Phuc
- (2) **212-Synthesis Silver Nanoparticles via Reduction Reaction by AC Glow Discharge at Atmospheric Pressure with Liquid**, Thai Van Phuoc, Shinnosuke Abe, Kenichiro Kosugi, Nobuo Saito, Kazumasa Takahashi, Toru Sasaki, and Takashi Kikuchi
- (3) **246-Conceptual Design of Massage Robot Using in Healthcare Therapy**, Luong Huu Thanh Nam, Truong Cong Toai, Tran Kim Phong and Nguyen Truong Thinh
- (4) **255-Study on UFLS Strategy in a Stand-alone Power System**, Manh-Tuan Nguyen, Chin-I Wu, Jihh-Yang Siao, Ying-Yi Hong, Yung-Ruei Chang, Yih-Der Lee and Shen-Szu Wang
- (5) **256-Studies on Operation Modes of Diesel Generators in a Standalone Power System**, Chin-I Wu, Jihh-Yang Siao, Manh-Tuan Nguyen, Ying-Yi Hong, Yung-Ruei Chang, Yih-Der Lee and Shen-Szu Wang

### BS-2 Renewable Energy and Power System Engineering (15 papers)

Venue: Room No.A1-1207, 12<sup>th</sup> Floor, The Center Building

Friday, November 23<sup>rd</sup> 2018

#### 10:40am - 12:00am

**Chair:** Prof. Dr. Nob. Harada, National Institute of Technology, Kitakyushu College, Japan

Dr. Le My Ha, Ho Chi Minh City University of Technology and Education, Vietnam

- (1) **5-Observer-Based LQR for Wind Energy Conversion Systems with Single Measurement**, Van-Phong Vu and Ton Duc Do
- (2) **16-Techno-Economic Analysis of Solar Power Plant Project in Binh Thuan, Vietnam**, Phuong Truong Le, Van Dung Nguyen and Phuong Long Le
- (3) **23-Optimal Compensation Using Genetic Algorithm for Voltage Stability Enhancement of a Multi-Machine Power System**, Dinh-Nhon Truong, Huu-Phuoc Duong, Tan-Hung Nguyen and Minh-Truong Le Dang
- (4) **37-Comparative Study of Short-term Electric Load Forecasting: Case Study EVNHCMC**, Nguyen Tuan Dung, Tran Thu Ha and Nguyen Thanh Phuong

#### 01:30pm - 03:30pm

**Chair:** Prof. Dr. Jeihoon Baek, *Koreatech University, Korea*

Assoc. Prof. Dr. Quyen Huy Anh, *Ho Chi Minh City University of Technology and Education, Vietnam*

- (1) **38-Voltage Stability Enhancement of Bac Lieu Wind Power by ANFIS Controlled Static Var Compensator**, V.-T. Bui and D.-N. Truong
- (2) **57-Total Solution of Surge Protection on Power Line for Telecommunication Sites**, Le Quang Trung, and Quyen Huy Anh
- (3) **83-A Research of Acid Gas Condensation in Large-scale Coal-fired Power Plants**, Anh Hoang, Tuyen Nguyen and Mao Nguyen
- (4) **104-Investigating the Design Parameters of Maple seed's Aerodynamic Force by Taguchi Method to Apply to Wind Turbine Blades**, Hung-Son Dang and Hoai-Nam Lai
- (5) **112-Impact of Ancillary Services and Its Prices on Large-Scale Solar and Wind Power Penetration in Electricity Market**, Dinh Thanh Viet and Phan Cong Tien
- (6) **116-A Study on Design and Simulation of The Point Absorber Wave Energy Converter Using Mechanical PTO**, Phan Cong Binh

#### 03:50pm - 05:30pm

**Chair:** Assoc. Prof. Dr. Dinh Thanh Viet, *The University of Da Nang, Vietnam*

Assoc. Prof. Dr. Truong Viet Anh, *Ho Chi Minh City University of Technology and Education, Vietnam*

- (1) **129-Wavelet-Based Fuzzy Logics for Recognition of Faults at Nha Be Power Substation of the Vietnam Power System**, Bon Nhan Nguyen, Thanh Phan Nguyen, Trieu Ngoc Ton, Khanh Van Nguyen, Toan Duc Nguyen and Vang Quoc Le
- (2) **131-A Short-Term Wind Power Forecasting Tool for Vietnamese Wind Farms and Electricity Market**, Dinh Thanh Viet, Vo Van Phuong, Minh Quan Duong, Alexander Kies, Bruno U. Schyska and Yuan Kang Wu
- (3) **136-Renewable Energy System Using Weather Data for Optimal Scheduling**, Duy Tan Nguyen and Duy Anh Nguyen
- (4) **144-A Cost-Optimal Pathway to Integrate Renewable Energy into the Future Vietnamese Power System**, Dinh Thanh Viet, Vo Van Phuong, Minh Quan Duong, Ma Phuoc Khanh, Alexander Kies and Bruno Schyska
- (5) **145-Study of FACTS Device Applications for the 220kV Southwest Region of the Vietnam Power System**, Bon Nhan Nguyen, Lam Thanh Le, Quyen Cao Le, Thai Hong Pham, Chiem Tan Nguyen and Hoang Trong Nguyen

### **BS-3 Automotive and Mechanical Engineering (15 papers)**

*Venue: Room No.A1-1202, 12<sup>th</sup> Floor, The Center Building*

*Friday, November 23<sup>rd</sup> 2018*

#### 10:40am - 12:00am

**Chair:** Dr. Nguyen Van Trang, *Ho Chi Minh City University of Technology and Education, Vietnam*

Dr. Le Thanh Phuc, *Ho Chi Minh City University of Technology and Education, Vietnam*

- (1) **86-Estimation of the Accumulated Energy in the Hybrid Ignition System**, Do Quoc Am, Do Van Dung and Nguyen Tan Ngoc
- (2) **252-Vehicle Frontal Impact to Pole Barrier Simulation Using Computer Finite Element Model**, Luu Nguyen Phu Thuong
- (3) **254-The Affect of Air Gap Between ABS Sensor and Brake Disc to the Anti – lock Braking System Efficiency**, Le Khac Binh
- (4) **263- Evaluation of RV165-2 Engine Performance**, Hung-Le Viet, Dung-Do Van, Giang-Luong Huynh, Thanh-Doan Minh

#### 01:30pm - 03:30pm

**Chair:** Prof. Dr. Chang-Ren Chen, *Kun Shan University, Taiwan*



**Assoc. Prof. Dr. Pham Huy Hoang, Ho Chi Minh City University of Technology, Vietnam**

- (1) **1-Effect of Kaolin on the Mechanical Property of Polypropylene/Low Density Polyethylene Blend**, Pham Thi Hong Nga and Tran Ngoc Thien
- (2) **29-Identification of Contact Property between Soft-hard Materials**, Le Hoai Phuong and Atsushi Mitani
- (3) **52-Program for Designing Planar Cam Mechanisms**, Pham Huy Hoang and Le Quang Ngoc
- (4) **105-Effects of Infill, Infill Patterns and Number of Perimeter Shells on Casting Patterns Fabricated Using FDM Method**, Nghi Huynh Huu, Duc Tran Cong Toan, Tho Nguyen Huu and Ha Thai Thi Thu
- (5) **107-Design of the Flexure Hinge Utilized for Ultrasonic-Aided Machining**, Hoang Trung Kien, Van Nguyen Thinh Phat and Pham Le Dang Hai
- (6) **121-Design of a Bistable Mechanism for Symmetric Force Output**, Tien Hoang Ngo, Ngoc Dang Khoa Tran and Dung-An Wang

**03:50pm - 05:30pm**

**Chair:** **Assoc. Prof. Dr. Atsushi Mitani, Sapporo City University, Japan**

**Assoc. Prof. Dr. Tran Ngoc Dam, Ho Chi Minh City University of Technology and Education, Vietnam**

- (1) **122-Study the Effect of Chrome Coating Thickness to Fatigue Strength of the Axle-Shaped Machine Parts**, Phoi Nguyen Vinh, Ngon Dang Thien and Cuong Le Chi
- (2) **123-Study on the Applicability of Influence Coefficient Method Combined with Vector Analysis in Dynamic Balancing Rigid Rotor Using Flexible Supports**, Lam Tran Thanh, Ngon Dang Thien, Cuong Le Chi
- (3) **124-Influence of Vibration Amplitude on Tool Wear During Ball End Milling of Hardened Steel**, Antsev A. V, Ngon Dang Thien, Trong Dang Huu and Yanov E. S
- (4) **138-Influence of Nanosilica in Mechanical Property of Natural Rubber Composite**, Minh Tai Le
- (5) **139-Solution for Heat Treatment in Quenching Process of S45C Steel Small Diameter Machine Parts Having Strong Texture**, Long Nguyen Nhut Phi, Ngon Dang Thien, Cuong Le Chi and Phoi Nguyen Vinh

#### **BS-4 Mechatronics Engineering (14 papers)**

*Venue: Room No. A1-1203, 12<sup>th</sup> Floor, The Center Building*

*Friday, November 23<sup>rd</sup> 2018*

**10:40am - 12:00am**

**Chair:** **Assoc. Prof. Dr. Nguyen Truong Thinh, Ho Chi Minh City University of Technology and Education, Vietnam**

**Dr. Nguyen Vu Lan, Ho Chi Minh City University of Technology and Education, Vietnam**

- (1) **53-Design and Analysis of a Compliant Gripper Integrated with Constant-Force and Static Balanced Mechanism for Micro Manipulation**, Duc-Chuong Nguyen, Thanh-Vu Phan and Huy-Tuan Pham
- (2) **87-Research and Development of a Human Step-Counting and Light-Sleep Wake-Up Device for Health Improvement**, Huy Q. Vu, Kien T. N. Vu and Dung X. Le
- (3) **91-Investigation on Barbot to Serve Human in Public Space**, Ha Quang Thinh Ngo, Thanh Phuong Nguyen and Hung Nguyen
- (4) **92-Research on Aerial Vehicle for Robust Navigation System Under Natural Disaster**, Ha Anh Minh Tran, Ha Quang Thinh Ngo, Thanh Phuong Nguyen and Hung Nguyen

**01:30pm - 03:30pm**

**Chair:** **Prof. Dr. Jau-Huai Lu, National Chung Hsing University, Taiwan**

**Dr. Vu Quang Huy, Ho Chi Minh City University of Technology and Education, Vietnam**

- (1) **93-Using Fuzzy Logic Scheme for Automated Guided Vehicle To Track Following Path Under Various Load**, Ha Quang Thinh Ngo and Anh Son Tran
- (2) **115-Design and Control of a Ball-balancing Robot**, Danh Ngoc Nguyen, Thanh Bo Cao, Truong Hung Pham, Nhu Thanh Vo, Phuoc Vinh Dang and Hoai Nam Le
- (3) **118-Design an Adaptive Autopilot for an Unmanned Surface Vessel**, Dinh Due Vo, Viet Anh Pham and Duy Anh Nguyen
- (4) **119-Application of Combinatorial Optimization in Logistics**, Long Le Ngoc Bao, Duc Hanh Le and Duy Anh Nguyen
- (5) **134-Design A Chess Movement Algorithm and Detect the Movement by Images Classification Using Support Vector Machine Classifier**, Ngo Luong Thanh Tra, Phung Tri Cong and Nguyen Duy Anh
- (6) **143- A Study on Building Optimal Path Planning Algorithms for Mobile Robot**, Quoc My Nguyen, Lam Ngoc Minh Tran and Tri Cong Phung

**03:50pm - 05:30pm**

**Chair:** **Assoc. Prof. Dr. Nguyen Ngoc Phuong, Ho Chi Minh City University of Technology and Education, Vietnam**

**Assoc. Prof. Dr. Truong Nguyen Luan Vu, HCMC University of Technology and Education, Vietnam**

- (1) **185-Fractional PI Control for Coupled-Tank MIMO System**, Vo Lam Chuong, Truong Nguyen Luan Vu and Le Linh
- (2) **191-Study on Response of Knee Rehabilitation Actuator using PID Controller**, Dao Minh Duc, Le Thi Thuy Tram, Tran Xuan Tuy and Pham Dang Phuoc
- (3) **243-Geometrical Design of a RUU Type Delta Robot Based on the Prescribed Workspace**, Hoai Nam Le and Xuan Hoang Le
- (4) **247-Design and Development of “Pho” Vending Machine**, Nguyen Truong Thinh, Tuong Phuoc Tho, Nguyen Ngoc Phuong

### **BS-5 Applied Physics and Thermal Engineering (15 papers)**

*Venue: Room No. A1-1204, 12<sup>th</sup> Floor, The Center Building  
Friday, November 23<sup>rd</sup> 2018*

#### **10:40am - 12:00am**

**Chair:** *Prof. Dr. Yueh-Heng Li, National Cheng Kung University, Taiwan  
Dr. Le Minh Nhut, Ho Chi Minh City University of Technology and Education, Vietnam*

- (1) **34-Optimization of Intermediate Pressure of the Two-stage Refrigeration System**, M. T. Hoang, C. C. Vo, T. V. Nguyen and H. K. Vu
- (2) **36-Research on Heat Exchanger between Water with Air in an Intercooler Based on CFD**, Cuong Duong Quoc, Thi Luong Dinh and Thang Dao Trong
- (3) **61-A Simple Linear Model for the Performance Evaluation of Cascade Fin Arrays**, Hsin-I Chou and Jau-Huai Lu
- (4) **108-Experimental Investigations for Fluid Flow Characteristics of Refrigerant R134a in a Microtubes Evaporator**, Thanh Trung Dang, Hoang Tuan Nguyen and Gia Dat Nguyen

#### **01:30pm - 03:30pm**

**Chair:** *Assoc. Prof. Dr. Le Anh Duc, Nong Lam University, Vietnam  
Dr. Nguyen Xuan Vien, HCMC University of Technology and Education, Vietnam*

- (1) **127-Experiments on Influence of Gravity to Heat Transfer Efficiency in Micro Tube Condenser**, Thanh Trung Dang, Kien Cuong Giang and Minh Hung Doan
- (2) **132-Experimental Study on Improving Coefficient of Performance for Split Air Conditioning System by Using an Innovative Separated-Vapor Device**, Minh Hung Doan, Trong Tuan Nguyen Tran, Xuan Vien Nguyen and Thanh Trung Dang
- (3) **192-The Effects of Mass Flow Rate on the Performance of a Microchannel Evaporator Using CO<sub>2</sub> Refrigerant**, Trong Hieu Nguyen and Thanh Trung Dang
- (4) **207-A Study on Change of the Shape and Size of the Minichannel Evaporators to Enhance the Cooling Capacity of the CO<sub>2</sub> Air Conditioning Cycle**, Kim Hang Vo and Thanh Trung Dang
- (5) **211-Experimental studies on Heating and Burning of Characterized Heavy fuel Blended Oil**, Sareddy Kullai Reddy, Chung-Hao Hsu and Yueh-Heng Li
- (6) **215-Study on Designing and Manufacturing a Radio Frequency Generator Using in Drying Technology**, Nguyen Hay, Pham Van Kien and Le Anh Duc

#### **03:50pm - 05:30pm**

**Chair:** *Prof. Dr. Jau-Huai Lu, National Chung Hsing University, Taiwan  
Assoc. Prof. Dr. Dang Thanh Trung, Ho Chi Minh City University of Technology and Education, Vietnam*

- (1) **226-Determining an Effective Method for One-Sun-Dried Squid Drying**, Le Anh Duc and Pham Van Toan
- (2) **238-Syngas Applied to Micro Thermophotovoltaic Power System Assemble with Stirling Engine**, Sheng-Wen Liu, Chien-Chun Kao, Yueh-Heng Li and Wen Li Chen
- (3) **248-Optimizing the Operating Parameters of the Humidification – Dehumidification Desalination System by Pinch Technology**, Quoc Vo Kien, Quoc Hoang An and Hiep Le Chi
- (4) **249-Theoretical and Experimental Study of Intermittent Absorption Refrigeration System**, Nghia-Hieu Nguyen, Quoc-An Hoang and Hiep-Chi Le, Hung-Duong Hoang
- (5) **253-Exergy Analysis of the Combined Ejector – Vapor Compression Refrigeration System Using R134a as Working Fluid**, Kien-Trung Nguyen, Quoc-An Hoang and Hiep-Chi Le

### **BS-6 Sustainable Economics and Educational Development (14 papers)**

*Venue: Room No. A1-601B, 6<sup>th</sup> Floor, The Center Building  
Friday, November 23<sup>rd</sup> 2018*

#### **10:40am - 12:00am**

**Chair:** [Dr. Dang Quang Vang, Ho Chi Minh City University of Technology and Education, Vietnam](#)

[Dr. Nguyen Quoc Khanh, Ho Chi Minh City University of Technology and Education, Vietnam](#)

- (1) **3-The Role of Happiness in the Relationship between Social Relations and Organizational Citizenship Behavior**, Nguyen Thi Thanh Thuy and Chang Man-Ling
- (2) **12-Forecasting of CO2 Emissions, Renewable Energy Consumption and Economic Growth in Vietnam Using Grey Models**, Hong-Xuyen Thi Ho
- (3) **21-The Effect of Customers' Personalization of Social Media on Salesperson Selling Behaviors**, Hong Nguyen Thi
- (4) **28- Factors Affecting the Achievement of Environmental Standard Certificates (ESC) at Small and Medium Vietnamese Enterprises**, Nguyen Thi Anh Van and Nguyen Khac Hieu

**01:30pm - 03:30pm**

**Chair:** [Dr. Nguyen Thi Thanh Van, Ho Chi Minh City University of Technology and Education, Vietnam](#)

[Dr. Nguyen Khac Hieu, Ho Chi Minh City University of Technology and Education, Vietnam](#)

- (1) **55-The Owner's Characteristics and Business Performance: The Case of Vietnamese Enterprises**, Nguyen Khac Hieu
- (2) **72-Put Forth a Conceptual Model about Corporate Social Responsibility in Tourism in Ho Chi Minh City**, Nguyen Thi Thanh Van, Nguyen Thien Duy
- (3) **78-Blockchain Technology – Opportunities for Emerging Economies**, Quoc Khanh Nguyen, Quang Vang Dang
- (4) **79-Blockchain Technology for the Advancement of the Future**, Quoc Khanh Nguyen, Quang Vang Dang
- (5) **82-Factors Affecting the Application of Environmental Management Accounting in Construction Companies in Ho Chi Minh City**, Nguyen Thi Huyen-Tram and Pham Ngoc Toan
- (6) **152-Service-based Green Growth Model for Vietnam**, Le Thi Giang and Nguyen Xuan Hiep

**03:50pm - 05:30pm**

**Chair:** [Assoc. Prof. Dr. Ngo Anh Tuan, Ho Chi Minh City University of Technology and Education, Vietnam](#)

[Assoc. Prof. Dr. Bui Van Hong, Ho Chi Minh City University of Technology and Education, Vietnam](#)

- (1) **42-An Exploration of Extraordinary Characteristics Impacting on the Improvement of Competitive Advantage of Vietnam's Garment Industry**, Tri Tran, Tu Tran, John Burgess, Susanne Müller and Marcus Weber
- (2) **259-Innovation Policy for Sustainable Development of SMEs in Benin**, Judicael Paterne Raoul Tokognon and Shao Yunfei
- (3) **236-Organizing Experiential Learning Activities for Sustainable Development of Core Competences of Technical Students at Ho Chi Minh City University of Technology and Education**, Duong Thi Kim Oanh
- (4) **237-Sustainable Development of Collaborative Problem Solving Competency for Technical Students through Experiential Learning (A Case Study in Planning Skills Subject at Ho Chi Minh City University of Technology and Education)**, Hien Dang Thi Dieu, Oanh Duong Thi Kim and Hien Nguyen Vu Bich

## **BS-7 Chemical and Environmental Engineering (14 papers)**

*Venue: Room No. A1-1205, 12<sup>th</sup> Floor, The Center Building*

*Friday, November 23<sup>rd</sup> 2018*

**10:40am - 12:00am**

**Chair:** [Prof. Dr. Long-Full Lin, Kun Shan University, Taiwan](#)

[Dr. Nguyen Thai Anh, Ho Chi Minh City University of Technology and Education, Vietnam](#)

- (1) **4-Adsorption Kinetics of Pb (II) and Two-Stage Batch Sorption Design for Removal of Lead (II) from Aqueous Solution by Modified Sugarcane Bagasse**, Nguyen Van Suc and Ho Thi Yeu Ly
- (2) **31-Multifunctional Smart Textiles: Influences of Hydrophobic Additional Finishes on Antimicrobial Treated Cotton Fabric**, Tuan-Anh Nguyen
- (3) **45-Tra Catfish Oil Production: Phospholipid Removal Using Citric Acid and Bleaching Using Activated Carbon**, Pham Thi Hoan and Trinh Khanh Son
- (4) **56-Green Synthesis of Copper Nanoparticles Deposited on Polyester Filter for Antibacterial Applications**, Nguyen Vinh Tien and Trinh Khanh Son

**01:30pm - 03:30pm**

**Chair:** [Assoc. Prof. Dr. Nguyen Van Suc, Ho Chi Minh City University of Technology and Education, Vietnam](#)

[Dr. Trinh Khanh Son, Ho Chi Minh City University of Technology and Education, Vietnam](#)

- (1) **76-Fatty Compounds from *Olax Imbricata***, Vo Thi Nga, Nguyen Thi My Huong and Nguyen Kim Phi Phung
- (2) **95- Diatom Biosilica: from Biosilicification to Bone Tissue Applications**, Thi Duy Hanh Le

- (3) **96- Colloidal Synthesis of Metal Nanoparticles for Surface Enhanced Spectroscopy and Electrocatalytic Applications**, Nhung Thi Tran
- (4) **111- Study on Application of Biocomposite Bio-Material Prepared from Ferromagnetic Nano Oxide and Biogum Extracted from Cassia Fistula Seeds in Methylene Blue Treatment**, Dao Minh Trung and Nguyen Duc Dat Duc
- (5) **164- Optimization of the Factors that Enhance the Isolation Efficiency of Collagen from Pangasius Fish Skin**, Nguyen Tien Luc
- (6) **170- Building a Mathematical Model to Determine the Relationship between Heat Emission Coefficient and Pressure of the Freeze Drying Environment of Solid Materials**, Nguyen Tan Dzung

#### **03:50pm - 05:30pm**

**Chair:** [Dr. Vo Thi Nga](#), *Ho Chi Minh City University of Technology and Education, Vietnam*

[Dr. Nguyen Tan Dung](#), *Ho Chi Minh City University of Technology and Education, Vietnam*

- (1) **190-Extracting and Purifying Pigment R-phycoerythrin from the Red alga Mastocarpus Stellatus**, Huu Phuoc Trang Nguyen, Michèle Morançais, Joël Fleurence, Thi Ngoc Linh Tran and Justine Dumay
- (2) **206-Research and Development of Natural Rubber Processing Technology for Vehicle Radial Tire Manufacturing in Vietnam**, Bui Huu Phu, Nguyen Ngoc An, Nguyen Huu Hung, Huynh Thi Viet Ha and Nguyen Dinh Dong
- (3) **234-Wastewater Treatment and Reuse on Campus: A Case Study in Kun Shan University**, W.-C. Kuo, C. W. Pan and L. F. Lin
- (4) **251-Enantio-selective Crystallization via a Kinetic and Thermodynamic Hybrid Process**, Tam Le Minh, Heike Lorenz and Andreas Seider-Morgenstern

### **BS-8 Electronics Engineering (15 papers)**

*Venue: Room No.A1-1206, 12<sup>th</sup> Floor, The Center Building*

*Friday, November 23<sup>rd</sup> 2018*

#### **10:40am - 12:00am**

**Chair:** [Prof. Dr. Kai-Yew Lum](#), *National Chi Nan University, Taiwan*

[Assoc. Prof. Dr. Tran Thu Ha](#), *Ho Chi Minh City University of Technology and Education, Vietnam*

- (1) **2-New Fuzzy-Based Adaptive Control Design for Chaotic Permanent Magnet Synchronous Motors**, Tat-Bao-Thien Nguyen
- (2) **22-Lossless Data Compression Algorithm To Save Energy In Wireless Sensor Network**, Tuong Ly Le and Minh Huan Vo
- (3) **25-A Vision-based Method for Autonomous Landing on a Target with a Quadcopter**, Le-Anh Tran, Ngoc-Phu Le, Truong-Dong Do and My-Ha Le
- (4) **27-Navigating Self-Driving Vehicles Using Convolutional Neural Network**, Minh-Thien Duong, Truong-Dong Do and My-Ha Le

#### **01:30pm - 03:30pm**

**Chair:** [Prof. Dr. Kai-Yew Lum](#), *National Chi Nan University, Taiwan*

[Dr. Vo Minh Huan](#), *Ho Chi Minh City University of Technology and Education, Vietnam*

- (1) **48-An Implementation of Neuro-Fuzzy System for Gait Analysis in a Smart Insole of Exoskeleton**, Do Xuan Phu, Ta Duc Huy and Tran Hoang Ha
- (2) **65-Design Adaptive Controller and Guidance System of an Unmanned Surface Vehicle for Environmental Monitoring Applications**, Ngoc-Huy Tran and Nguyen-Nhut-Thanh Pham
- (3) **101-Adaptive Evolutionary Neural Network Gait Generation for Humanoid Robot Optimized with Modified Differential Evolution Algorithm**, Tran Thien Huan, Cao Van Kien and Ho Pham Huy Anh
- (4) **147-Implementation of Moving Average Filter on STM32F4 for Vibration Sensor Application**, Duong Truong Thinh, Nguyen Ba Hoang Quan and Nopadon Maneetien
- (5) **148-Modeling and Control of Diode Clamped Three-level Inverter to Eliminate Common Mode Current in AC Motor Drive System**, Mon-Van Doi and Nho-Van Nguyen
- (6) **155-Direct Power Control Strategy to Eliminate Common Mode Voltage in Three Phases Three-level Neutral Point Clamped PWM Rectifier**, Mon-Van Doi and Nho-Van Nguyen

#### **03:50pm - 05:30pm**

**Chair:** [Assoc. Prof. Dr. Nguyen Minh Tam](#), *Ho Chi Minh City University of Technology and Education, Vietnam*

[Assoc. Prof. Dr. Nguyen Thanh Hai](#), *Ho Chi Minh City University of Technology and Education, Vietnam*

- (1) **161-Unknown Input Method Based Observer Synthesis and Actuator Fault Estimation for Polynomial T-S Fuzzy Systems**, Van-Phong Vu and Wen-June Wang
- (2) **179-Designing Dynamic Positioning System Based on  $H^\infty$  Robust Recurrent Cerebellar Model Articulation Controller**, V.P Ta, X.K Dang, V.H Dong and V.D Do
- (3) **196-An Application of Pressure Estimation in Minimally Invasive Surgery**, Van-Muot Nguyen, Eike Christian Smolinski, Alexander Benkmann, Wolfgang Drewelow, and Torsten Jeinsch
- (4) **217-Bio-realistic Neural Network in Speech Timing Learning Mechanism**, Minh N.L, Thanh V.N, Vinh D.P, Ngoc N.D, Nam L.H and Hai T.N
- (5) **225-Sliding Mode Controller with DOBC and MTPA Trajectory for Surface-Mounted PMSM**, Sabizhan Sumbekov and Ton Duc Do

## DAY 2 (SATURDAY, NOVEMBER 24<sup>th</sup> 2018)

### BS-2 Renewable Energy and Power System Engineering (6 papers)

Venue: Room No.A1-1207, 12<sup>th</sup> Floor, The Center Building  
Saturday, November 24<sup>th</sup> 2018

**10:15am - 12:15pm**

**Chair:** *Assoc. Prof. Dr. Vo Viet Cuong, Ho Chi Minh City University of Technology and Education, Vietnam*  
*Assoc. Prof. Dr. Truong Dinh Nhon, Ho Chi Minh City University of Technology and Education, Vietnam*

- (1) **214-Contradistinctive Inquisitions of Windbelt Generator**, Bishwajit Banik Pathik and Rezwana Ahmed
- (2) **220-Impact of Duyen-Hai Wind Farms on Tra-Vinh Power Transmission Systems**, Thanh-Nhan Vo, Van-Tan Tran and Hoa Minh Nguyen
- (3) **221-A Coordinated Control Strategy for DC-link Voltage and Crowbar to Enhance Low Voltage Ride-Through of DFIG-based Wind Energy Conversion Systems**, Tan Luong Van, Trung Hieu Truong, Hoan Tran and Ngoc Khoa Dang
- (4) **233-Improved Control Scheme for Low Voltage Ride-Through of PMSG-based Wind Energy Conversion Systems**, Tan Luong Van, Trung Hieu Truong, Minh Tien Cao, Phu Cong Nguyen and Hung Nguyen
- (5) **261-Feasibility for Solid Waste Power Generation at Phu Quoc Island, Vietnam**, Hoang-Phuong Nguyen, Viet-Cuong Vo, Vinh-Nghi Le, Thi-Thanh-Binh Phan and Thanh-Phong Tran
- (6) **262-Improvement of Biodiesel Transesterification Efficiency by Activated Carbon and Microwave Power**, Nguyen Vu Lan and Ming-Chien Hsiao

### BS-3 Automotive and Mechanical Engineering (6 papers)

Venue: Room No.A1-1202, 12<sup>th</sup> Floor, The Center Building  
Saturday, November 24<sup>th</sup> 2018

**10:15am - 12:15pm**

**Chair:** *Assoc. Prof. Dr. Dang Thien Ngon, Ho Chi Minh City University of Technology and Education, Vietnam*  
*Assoc. Prof. Dr. Pham Huy Tuan, Ho Chi Minh City University of Technology and Education, Vietnam*

- (1) **140-Developing of Aging Wine Model by Dielectric Barrier Discharge (DBD) at Atmospheric Pressure**, N. Dam Tran and Nob. Harada
- (2) **142-Some Experimental Research Results on Steel Fatigue: A Review**, Van Huu Thinh
- (3) **166-Effects of Convective Vacuum Drying with Heating Coil on Properties of Pyinkado (*Xylia Xylocarpa*)**, Bui Thi Thien Kim, Hoang Thi Thanh Huong, Ho Xuan Cac and Nguyen Van Hung
- (4) **218-A Small Test Rig for Evaluating Characteristics of Rotating Machinery**, Tran Phuoc Thanh, Dang Phuoc Vinh, Vo Ngoc Vu, Le Hoai Nam, Vo Nhu Thanh and Nguyen Danh Ngoc
- (5) **250-Atomistic Simulation Study of Crack Tip Blunting and the Influence of Blunting Behavior on the Fracture Strength of A Single Layer Graphene Sheet**, Minh-Ky Nguyen
- (6) **235-Effect of Punching Parameters on the Burr Height of the Bracket Product**, Thanh Trung Do, Pham Son Minh and Anh Nhon Bui

### BS-9A Electrical Engineering (6 papers)

Venue: Room No.A1-1203, 12<sup>th</sup> Floor, The Center Building  
Saturday, November 24<sup>th</sup> 2018

**10:15am - 12:15pm**

**Chair:** *Prof. Dr. Hojin Jeong, Koreatech University, Korea*  
*Assoc. Prof. Dr. Phan Van Ca, Ho Chi Minh City University of Technology and Education, Vietnam*

- (1) **8-Controlled Diode Bridge Clamped Three-Level Inverter Based on Quasi-Switched Boost Network**, Duc-Tri Do, Minh-Khai Nguyen, Thanh-Hai Quach and Duy-Thao Nguyen
- (2) **39-Analysis and Design of Distributed and Concentrated IPMSM for Compressor in Electric Vehicles**, Hojin Jeong, Jeihoon Baek, Namhun Kim, Geunsoo Lee, Sangshin Kwak and Chihyung Ahn
- (3) **62-Electromagnetic Field Modeling and Analysis Based on QuickField Simulator**, Mai Nguyen Thi Bich and Ngoc Thien Le
- (4) **77-Study on Inertia Wheel Pendulum Applied to Self-Balancing Electric Motorcycle**, Quang Khanh Ho and Cong Bang Pham
- (5) **89-45 nm-CMOS Temperature Sensor Using 2-Stage Vernier Technique**, Minh Huan Vo
- (6) **100-Advanced Speed Control of PMSM Motor Using Neural FOC Method**, Ho Pham Huy Anh, Cao Van Kien, Tran Thien Huan and Pham Quoc Khanh

### **BS-9B Electrical Engineering (6 papers)**

Venue: Room No.A1-1204, 12<sup>th</sup> Floor, The Center Building  
Saturday, November 24<sup>th</sup> 2018

**10:15am - 12:15pm**

**Chair:** Prof. Dr. Nob. Harada, *National Institute of Technology, Kitakyushu College, Japan*  
Dr. Quach Thanh Hai, *Ho Chi Minh City University of Technology and Education, Vietnam*

- (1) **126-Adaptive Tracking Control for a Boost DC – DC Converter: A Switched Systems Approach**, Dao Phuong Nam, Bui Minh Thang and Nguyen Truong Thanh
- (2) **130-Enhancing Voltage Stability of Thu Duc Transmission System Using Static Var Compensator**, M.-S. Nguyen Thi, D.-N. Truong, T.-T. Hoang, M.-T. Le Dang and H.-N. Pham Lam
- (3) **165-A Thorough Overview of Hierarchical Structure of Microgrid Systems**, Nguyen Van Tan, Le Hong Lam, Duong Minh Quan, Nguyen Huu Hieu and Le Kim Hung
- (4) **172-Influence of Vegetable Oils on Breakdown Voltages of Enamel Insulation of Transformer Wire**, N.V. Dung, N.P. Long and L.Q. Khuong
- (5) **178-Various Algorithms to Detect Faults on Underground Cables Based on Impedance Method**, Le Hong Lam, Dang Hong Quan, Nguyen Van Tan and Nguyen Huu Hieu
- (6) **222-Hybrid PVK: OXD-7: QDs Emitting Layer for High Color Purified Quantum Dot Light Emitting-Diode**, Hoang-Tuan Vu, Chih-Chiang Yang, Ba-Son Nguyen and Yan-Kuin Su

### **BS-10A Applied Science and Information Engineering (5 papers)**

Venue: Room No.A1-1205, 12<sup>th</sup> Floor, The Center Building  
Saturday, November 24<sup>th</sup> 2018

**10:15am - 12:15pm**

**Chair:** Prof. Dr. Hsuan-Ming Feng, *National Quemoy University, Taiwan*  
Dr. Le Van Vinh, *Ho Chi Minh City University of Technology and Education, Vietnam*

- (1) **33-Immediate Velocity Prediction of a Mixed-Traffic Flow in Urban Road Networks with Spatial-Temporal Correlation Analysis**, Hong Thanh Pham, Tran Van Lang and Van Hoai Tran
- (2) **51-IoT-Based Smart Plug-In Device for Home Energy Management System**, Thanh Dat Nguyen, Viet Khang Tran, Tan Duy Nguyen, Ngoc Thien Le and My Ha Le
- (3) **84-Facial Expression Recognition Based on Salient Regions**, Anh Vo and Bao T. Nguyen
- (4) **99-Optimal Configuration Design and Operation of Pressurized Irrigation Systems Using Stochastic Optimization**, Pham Van Tinh and Pham Duc Dai
- (5) **159-Human Image Recognition through Dynamic Mapping Generation**, Hsuan-Ming Feng, Hua-Ching Chen and Ching-Chang Wong

### **BS-10B Applied Science and Information Engineering (6 papers)**

Venue: Room No. A1-1206, 12<sup>th</sup> Floor, The Center Building  
Saturday, November 24<sup>th</sup> 2018

**10:15am - 12:15pm**

**Chair:** Assoc. Prof. Dr. Duong Tuan Anh, *Ho Chi Minh City University of Technology, Vietnam*  
Dr. Thanatip Chankong, *University of Phayao, Thailand*

- (1) **187-Chaotic Time Series Prediction Using Radial Basis Function Networks**, Nguyen Van Truc and Duong Tuan Anh
- (2) **205-Automatic Classifying of Cervical Cells Using Fourier Spectral Features**, Thanatip Chankong
- (3) **209-Optimization Scheduling for Flexible Manufacturing System using Petri net**, Tung Pham Truong, Phuoc Pham Dang and Binh Luu Duc
- (4) **219-Green Wave - based Solution for Intelligent Traffic Lights System Control in Vietnam Urban Areas**, Cao Tho Phan, Duy Duong Pham, Phuong Mai Nguyen and Hoang Vu Tran
- (5) **245-The Existence of Solutions for an Initial Value Problem of Caputo-katugampola Fractional Differential Equations**, Truong Vinh An
- (6) **260-Proposing a Deployment Strategy of Sensor Network for Tracking Mobile Heat Source Trajectory**, Thanh-Phong Tran

### **BS-11A Civil Engineering (5 papers)**

*Venue: Room No. A1-602, 6<sup>th</sup> Floor, The Center Building  
Saturday, November 24<sup>th</sup> 2018*

**10:15am - 12:15pm**

**Chair:** *Assoc. Prof. Dr. Nguyen Trung Kien, Ho Chi Minh City University of Technology and Education, Vietnam  
Dr. Chau Dinh Thanh, Ho Chi Minh City University of Technology and Education, Vietnam*

- (1) **6-Comparative Structural and Non-structural Properties of Ultra High-performance Steel-fiber-reinforced Concretes and High Performance Steel-fiber-reinforced Concretes**, Duy-Liem Nguyen, Phu-Cuong Nguyen, Van-Thuan Nguyen and Luu Mai
- (2) **7-Environmental Condition Dependent Electrical Resistivity of High-Performance Fiber-Reinforced Concretes**, Duy-Liem Nguyen
- (3) **11-Comparison of Stress Field and Strut-and-Tie Analyses**, Jaroslav Navrátil and Bao Dang Tran
- (4) **13-Density-Based Optimization for Strut-Tie Modeling**, Luu Mai and Duy-Liem Nguyen
- (5) **35-A Cell-based MITC3+ Flat Shell Element for Frequency Analyses of Plates and Shells Using Substructuring Methods**, Thanh Chau-Dinh, Huy Vo-Ngoc and Jin-Gyun Kim

### **BS-11B Civil Engineering (5 papers)**

*Venue: Room No. A1-601B, 6<sup>th</sup> Floor, The Center Building  
Saturday, November 24<sup>th</sup> 2018*

**10:15am - 12:15pm**

**Chair:** *Assoc. Prof. Dr. Phan Duc Hung, Ho Chi Minh City University of Technology and Education, Vietnam  
Dr. Tran Vu Tu, Ho Chi Minh City University of Technology and Education, Vietnam*

- (1) **14-Application Ability and Development Orientation of Ecological Apartments in Ho Chi Minh City**, Hai Yen Hoang
- (2) **66-A Study on Steel Slag Replacing Sand in Concrete**, Thanh-Vinh Nguyen, Anh-Thang Le and Manh-Tuan Nguyen
- (3) **141-A Comparison of Motorcycle Ownership and Use in Ho Chi Minh City and Bangkok**, Tran Vu Tu and Hiroaki Nishiuchi
- (4) **229-Performance of Hot Mix Asphalt Concrete When using Electric-Arc Furnace Slag as Natural Coarse Aggregate**, Manh Tuan Nguyen, and Anh Thang Le
- (5) **230-Proposal of a Measuring Duration of Water Permeability for Cover Concrete by Surface Water Absorption Test in Poor Curing Conditions**, Van Toan Ngo



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