The 4th International Symposium on the

Fusion Science and Technologies 2015

January 12-16, 2015

Rajamangala University of Technology Suvarnabhumi (RUS), Huntra Campus,

Phra Nakhon Si Ayutthaya, Thailand

Conference Overview

The International Symposium on the Fusion science and Technologies or ISFT conference will focus on the academic and research developments between global the universities and industries. ISFT was started through the fantastic relationship between South Korea and Thailand by the founders of ISFT, including Prof. Dr. Hanshik Chung, Dean of College of Marine Science, GNU, and Dr. Chulsu Kim, CEO of KTENG, from Korea and Assoc. Prof. Napat Watjanatepin and Mr. Manoon Chunchom from Thailand, had started ISFT in 2011. Until now, we have run three conferences as following:

ISFT 2012 held at GNU, Korea during June 28, 2012 – July 2, 2012.

ISFT 2013 held at RUS, Nonthaburi, Thailand during August 1-3, 2013.

ISFT 2014 held at the NTC, Jeonju City, Korea on July 30-31 and August 1-2, 2014.

All past conference, we got a very fantastic success.

The ISFT2015 conference, hosted by RUS, will be held at Phra-Nakhon-Si Ayutthaya, Thailand, during January 12-16, 2015 due to the upcoming 10th Years Anniversary of RUS.

We are pleased to invite all of you to this Conference. The main purpose is to strengthen academic and research cooperation, including the university and industry cooperation in order to benefit many countries from the ISFT network.

The high quality full papers will be selected and invited to be published in the RUS journal as well as recommended to be published in journals such as JISFT, IJIBC, IJASC, JIIBC, JITM in South Korea.

Conference Topics

Topics of interest include but are not limited to the following:

1. Machinery & Energy

- Material Science & Industrial Engineering
- Refrigeration & HVAC
- Photovoltaic
- Wind Power
- Hydrogen
- Solar Thermal
- Geothermal
- Fuel Cell
- Water Power
- Bio/ Waste / Coal Gasification
- Marine Science
- Drying Technology

2. Electrical & Electronics

- Electrical Power and Energy
- Power Converters
- Communication
- Microwave Technology
- Signal and System
- Image Processing
- Sensors Technology & Application
- Computer & Software
- Drives & Control Technology
- Control System & Application
- Electrical Measurement & Instruments
- Light source & Application Technique

- Digital & Analog Electronics
- Electrical Machines

3. Science and Technology

- Information and Communication Technology
- Computer Science
- Chemistry
- Physics
- Biology
- Civil Technology
- Architecture Technology
- Environment Technology

4. Agricultural Technology

- Food Technology
- Plant Science
- Animal Science
- Fisheries Science
- Agro-Industrial Product Development
- Agricultural Mechanization

5. Social Science

- Language Communication
- Tourism and Hotel
- Education
- Business
- Accounting
- Management
- Marketing

Organizer

International Society on the Fusion science and Technologies, Thailand

Rajamangala University of Technology Suvarnabhumi, Thailand

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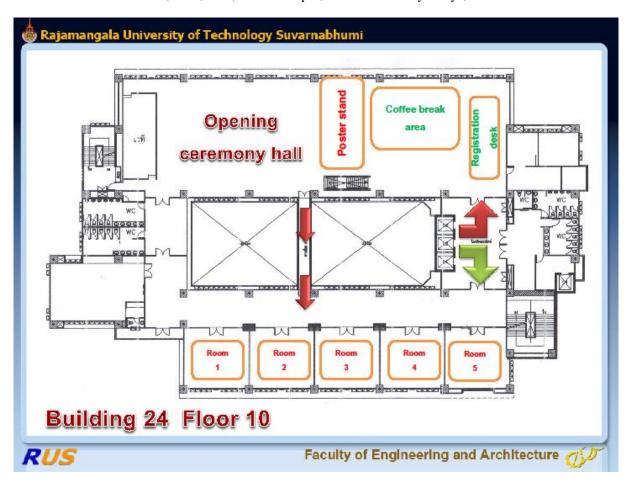
E-mail: isft365@gmail.com

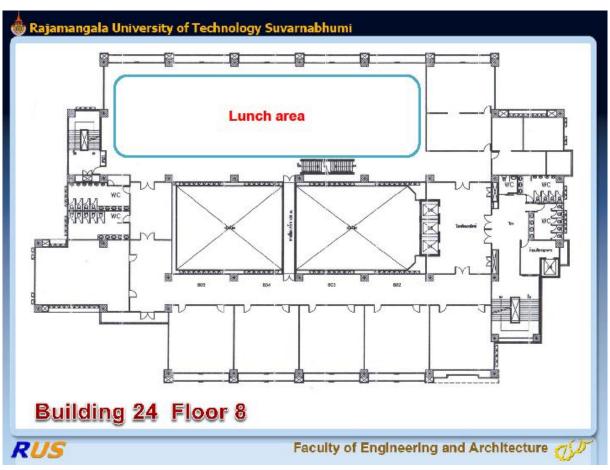
Website: http://www.isft365.org/

Language

The official language of the Conference is English.

The 4th International Symposium on the Fusion science and Technologies 2015 (ISFT2015) Jan 12-16, 2015, RUS, Huntra campus, Pra Nakhon Si Ayutthaya, Thailand





Tentative Program of ISFT 2015

Venue: Rajamagala University of Technology Suvarnabhumi, Huntra campus, Building 24, floor 8 and 10

Time	January 12 th (Monday), 2015		
13:00 - 17:00	Registration at Building 24, Floor 10		
18:00 - 20:00	Welcome reception at Krungsri River Hotel		
Time	January 13 th (Tuesday), 2015		
08:00 - 12:00	Registration at Building 24, Floor 10		
08:30 - 10:30	Opening Ceremony Address: Thai Chair, Assc.Prof.Napat Watjanatepin Address: Korea Chair, Dr. Chulsu Kim Address: President of RUS, Prof.Paisal Burinwattana		
10:30 - 12:00	Invited paper: 1. On the use of permanent magnet machines in electric vehicles, Prof. Noureddine Takorabet. 2. Structural and temperature aspects of design wear resistant UHMWPE-based polymer-polymeric and solid lubricating composites, Prof. Sergey V. Panin. 3. Waste to Energy: Potential & Challenges for India, Prof. Naveen Kumar.		
12:00 - 14:00	Lunch Time at Building 24, floor 8 Poster session at Building 24, floor 10		
	Parallel session at floor 10		
14:00 - 17:20	Room 1 Room 2 Room 3 Room 4 Room 5 ME03-ME08 ME01,ME02, EE01,EE03, ME01,EE03, ME10,ME16, ME09,ME21, EE04,EE08, ME23,ME24 ST01-ST04, AG01,AG03 SS02, SS05, SS02, SS05, SS02, SS05, ME23,ME24, EE09,EE11, ME22,ME25, EE09,EE11, ME26,ME32, EE12-EE14, ME35, ME44 ST11,ST12 SS07-SS08		
18:00 - 20:00	Welcome Dinner at Krungsri River Hotel		
Time	January 14 th (Wednesday), 2015		
09:00 - 10:30	Registration at Building 24, Floor 10		
09:00 - 10:00	Invited paper: 1. Energy saving, installation space and initial cost advantages of a multi boiler system, Prof. Young Il Kim, 2. Nonlinear loads the major cause of electrical utility pollution, Assc.Prof. Viboon Chunkag		

	Parallel sessio	n at Building 24	4 floor 10		
10:00 - 12:00	Room 1	Room 2	Room 3	Room 4	Room 5
	ME27,ME28,	ME11,ME31,	EE02,EE07,	ME14,ME15,	EE17,EE18,
	ME29,ME37,	ME40,ME42	EE10,EE16,	ME19,ME34,	EE20,EE22,
	ME41,ME46	ME43,ME51	EE19	ME38,ME48,	EE23
12:00 - 13:00	Lunch at Build	ding 24, floor 8			
	Parallel sessio	n at Building 24	4, floor 10		
	Room 1	Room 2	Room 3	Room 4	Room 5
13:00 - 14:40	ME39,ME47,	ME53-ME57	ME58-ME62,	ME63-ME67,	-
	ME49,ME50,				
	ME52				
14:40 – 15:30	Business sessi	on at Building	24, floor 10		
15:30 - 17:00	Closing Ceremony at Building 24, floor 10				
18:00 - 22:00	Banquet				
Time	January 15 th (Thursday), 2015				
08:00 - 08:30	Registration				
08:30 - 12:00	Technical Tou	ır			
12:00 - 13:30	Lunch Time				
13:30 - 16:00	Ayutthaya Cu	lture Tour			
Time		A team :	January 16 th (l	Fri), 2015	
08:00 - 12:00	ISFT Organiza	ISFT Organization meeting			
Time	I	3 team : Janua	ry 16 th (Fri) ~ 1	9 th (Mon), 201	5
08:00 - 17:00	Industry discu	ssion of organiz	zing committee		

Remark:

- 1. The arrival and departure time to Suvarnabhumi International Airport is upon to the participant, please make appointment for picking up one on one.
- 2. The technical tour program will visit Osotsapa Factory in Ayutthaya province. It has produced energy drink named "M150".
- 3. The culture tour program will visit Ayothaya floating market in Ayutthaya province.

Presentation list Tuesday 13 January, 2015

Afternoon session

ROOM 1	Machinery and Energy
14:00 - 14:20	ME03 Productivity Improvement for a Hard Disk Drive Industry by
	Reducing Machines Downtime of Head Gimbal Assembly Line
	Ubolrat Wangrakdiskul, Noppawan Pengruang
14:20 - 14:40	ME04 Photocatalytic and antibacterial activity of ZnO nanoparticles
	prepared by precipitation method
	Weerachai Sangchay
14:40 - 15:00	ME05 An Experimental Study on Performance and Emission
	Characteristics of a Light Duty Single Cylinder Diesel Engine Fueled
	With Isobutanol and Diesel Blend
	Mohd Waqar Naseer Siddiquee, Vasu Kumar
15:00 - 15:20	ME06 Preparation of Titanium dioxide/Poly(lactic acid) composite
	sheath-core bicomponent fibers and their properties
	Nanjaporn Roungpaisan, Natee Srisawat, Natthaphop suwannamek,
	Chureerat Prahsarn
15:20 - 15:40	ME07 The photocatalytic activities of nano-titanium dioxide on the
	cotton fabrics for self-cleaning properties
	Siripan Metanawin, Tanapak Metanawin, Praripatsaya Panutumrong,
	Sunee Hathaiwaseewong, Tirapong Chaichalermvong
15:40 - 16:00	ME08 The effect of nano-Zinc oxide on the self-cleaning properties of
	cotton fabrics for textile application
	Praripatsaya Panutumrong, Tanapak Metanawin, Siripan Metanawin, and
	Narongchai O-Charoen
16:00 - 16:20	ME10 Study of Mechanical and Friction behavior of Polystyrene based
	nano composites.
	Prashant Chaudhary, Vatsal Gupta, Bhavesh Gulia, Prince Gulati,
	Kunal Barolia
16:20 - 16:40	ME16 The Effect of Nitrogen Ion Implantation on Wear Properties of
	UHMWPE
15 10 17 00	Tinnakorn Poowadin, Sai Sriyotha
16:40 - 17:00	ME23 Mechanical Properties of Crosslinked Recycle High Density
	Polyethylene
17.00 17.20	Anuchit Khongrit, Jittiwat Nithikarnjanatharn
17:00 - 17:20	ME24 A review on Thrust Vectoring and its effect on Vertical Take off
	and Landing Systems
	Samarth Jain, Vasu Kumar, Naveen Kumar

ROOM 2	Machinery and Energy
14:00 - 14:20	ME01 Cleaning Schedule Optimization of Industrial Heat Exchanger
	Network
	Totok Ruki Biyanto, Hendra Cordova, Totok Soehartanto
14:20 - 14:40	ME02 Investigations on effects of alcohol types on esterification of
	Pyrolysis using green co-solvents: Preliminary results
	Yahaya Alhassan, Naveen Kumar, Idris M. Bugaje
14:40 - 15:00	ME25 Review on emission characteristics of algae fuel blended with
	diesel in a CI engine
	Aseem Jain, Dhruv Gupta, Vasu Kumar
15:00 - 15:20	ME26 Biodiesel Production from Microalgae: A Review
	Jatin Aggarwal, Vasu Kumar, Dhruv Gupta
15:20 - 15:40	ME32 Conversion of Sal Seed Oil to Biodiesel using Non-catalytical
	Supercritical Transesterification Method
	Harveer Singh Pali, Naveen Kumar
15:40 - 16:00	ME09 Fabrication and studies of Composite Membrane Based on
	Graphene Doped nafion membrane for decreasing Platinum loading.
	Nadeem Yamin, Abhishake Goyal
16:00 - 16:20	ME21 Electrodes coated with PANI/Graphene Oxide to improve the
	performance of PEMFC
	Nadeem Yamin, Abhishake Goyal, Naveen Kumar
16:20 - 16:40	ME22 Fabrication of Graphene doped Nafion membrane for decreasing
	Platinum loading
	Nadeem Yamin, Abhishake Goyal, Naveen Kumar
16:40 - 17:00	ME35 A Review on Proton Exchange Membrane Fuel Cell
	Abishek Aggarwal, Vasu Kumar, Naveen Kumar
17:00 - 17:20	ME44 Performance and emission characteristics of n-butanol and iso-
	butanol diesel blend comparison
	Mohd Waqar Naseer Siddiquee, Vasu Kumar

ROOM 3	Electrical and Electronics
14:00 - 14:20	EE01 AU Air Level Process Control System
	Warranipit Suvittayakul, Narong Aphiratsakun
14:20 - 14:40	EE03 Development of an Automotive Anti-Theft System
	Pulkit Batra
14:40 - 15:00	EE04 Analogue Simulation with Proteus and WinFACT Programs for
	Undergraduate Control System Course
	Preecha Sakarung

15:00 - 15:20	EE12 Regenerative Braking Systems: A Review Study
	Pradeep Kumar, Amit Sharma
15:20 - 15:40	EE08 State-of-the-Art for reactive power compensation and harmonic
	mitigation technologies
	Pasist Suwanapingkarl, Arnon Singhasathein
15:40 - 16:00	EE09 Analysis harmonic mitigation of medium and small industrial
	businesses in distribution power network
	Pasist Suwanapingkarl, Arnon Singhasathein, Nattaphong Phanthuna,
	Manat Boonthienthong, Kwanchanok Srivallop, Wannipa Ketken
16:00 - 16:20	EE11 Research for Developing MV Power-semiconductor-type Fault
	Current Limiter based on Magnetic Turn-Off principle
	Kwanghee Yun, Moon Young Hyun, Jeong Youngsik
16:20 - 16:40	EE21 Research for Developing MV Power-semiconductor-type Fault
	Current Limiter based on Magnetic Turn-off Principle
	Yoon Kwang hee, Young-sik Jeong, Moon Yung hyun
16:40 - 17:00	EE13 Background Models Benchmark for Object Detection
	P. Sritanauthaikorn, P. Sinpaitoon, S. Thongkullaphat, T. Borirakarawin
17:00 - 17:20	EE14 Robust Vehicle Detection and Tracking System based on Vision
	System
	Seunghwan Baek, Heungseob Kim, Woosung Che, Kwangsuck Boo

ROOM 4	Science and Technology
14:00 - 14:20	ST01 Application of Run Theory in the define Drought Characteristics
	for the analysis of drought in Chiang Mai province
	Nuttawut Intaboot
14:20 - 14:40	ST02 Crack Detection in Fiber Concrete by Electrical Imaging Methods
	N. Wiwattanachang, P.H. Giao, C. Vichalai
14:40 - 15:00	ST04 Speech Emotion Recognition in Consensus Building
	Ning He, Jinji Zhang, Yanjun Li, Xiaogang Wang
15:00 - 15:20	ST06 Inventory Control System
	Drishty Kapoor
15:20 - 15:40	ST08 Electrical Energy Efficient System Design using Automation and
	Artificial Intelligence for Classrooms
	Rashi Batra, Anisha Gupta
15:40 - 16:00	ST03 Research on Vehicular communications technology: V2V
	Vipul Garg, Prashant Goel, Ashish Singh
16:00 - 16:20	ST07 Exhaust gas recirculation (EGR) in internal combustion engines: a
	review
	Amritesh Kumar, Anant Govil

16:20 - 16:40	ST09 Effect of Modification of Plenum Length on Engine Efficiency: A
	Review
	Amit Sharma, Amritesh Kumar
16:40 - 17:00	ST11 A study on the Determination of Minimum Airflow for
	Stratification Control of Single Duct VAV Terminal Units
	Young-Hum Cho, Jae-Hun Jo, Jae-Han Lim
17:00 - 17:20	ST12 Effect of the Application of Safety Patrol Management
	System(SPMS) Upon the Reduction of Disaster & Accident Occurrences
	in Construction Site
	Yoon Yeo-Chan, Kwang-Seop Chung, Young Il Kim, Seon-Hay Kim, Ji-
	Hoon Kim, Sung-Min Kim

ROOM 5	Agricultural Technology & Social Science
14:00 - 14:20	AG01 Application of Lysosome Isolated from Candida utilis as
	Antimicrobial of Salmonella typhimurium
	Titik Budiati, Wahyu Suryaningsih
14:20 - 14:40	AG03 Effect of Supplementing Premature Rice Flour on the Quality of
	Normal Wheat Bread
	Tosporn Namhong, Siriwan Suknikom, Supavadee Rawdsiri
14:40 - 15:00	SS05 A Comparative Study of Accounting Practices and Tax Practices
	of Installment Sales, Hire-Purchase and Leasing Businesses
	Surachai Am-ugsorn
15:00 - 15:20	SS07 Motivation to determine admission to the Faculty of Engineering
	and Architecture, Architecture and Landscape Architecture Rajamangala
	University of Technology Suvarnabhumi Nonthaburi Academic year 2014
	Patravadee Siriwan
15:20 - 15:40	SS02 The Participatory Action Research to Develop OTOP Network
	Strategic Plan in Don Chedi District, Suphanburi
	Junphen Wannarak, Juntarawat Arkarametanon, Watcharee Phetwong,
	Suphanan Jantree
15:40 - 16:00	SS08 Questionnaire and Observation Study on the Usage Patterns of
	Sanitary Fixtures in the Toilet of High School Building
	Kwang-Seop Chung, Dong-Hyeok Kim, Seon-Hay, Kim, Young Il, Kim,
	Kyeong-Hwan Moon

Wednesday 14 January, 2015

Morning session

ROOM 1	Machinery and Energy
10:00 - 10:20	ME27 Microstructure and Strength Analysis of Friction Stir Welded
	(Al/SiCp) Metal Matrix Composites
	Mohd Rashid
10:20 - 10:40	ME28 Microstructure Analysis of Piston Rings and Wears Resistance of
	Coating by Physical Vapour Deposition
	Shailesh Kumar Singh
10:40 - 11:00	ME29 Scratch Testing for Evaluate Cohesive Bond Strength of Thermal
	Sprayed Coating
	Hathaipat Koiprasert, Sirinee Thaiwatthana, Panadda Sheppard
11:00 - 11:20	ME37 The Effect of Carburizing towards the Rating Design of Tube
	Coil of Ni-base Super Alloys Grade 35Cr-45Ni-Nb
	Chokchai Singhatham, Krittee Eidhed
11:20 - 11:40	ME41 Chemical Properties of Lightweight Aggregate made with Dry
	Bottom Ash
	Joung-Soo Sun, Jin-Man Kim, Ha-Na Lee, Hong-Beom Choi, Jea-
	Seong Yu
11:40 - 12:00	ME46 Properties of Mortar Using Lightweight Fine Aggregate Made by
	Bottom Ash Discharged from Air Cooling Process
	Hong-Beom Choi, Jin-Man Kim, Mao Li, Joung-Soo Sun, Sun-Mi Choi,
	Kil-Hee Kim

ROOM 2	Machinery and Energy
10:00 - 10:20	ME11 Performance Analysis of a CI Engine in Dual Mode with
	Hydrogen and Diesel
	Ashish Kumar Singh, Naveen Kumar, Parvesh kumar
10:20 - 10:40	ME31 Experimental Investigation on Performance and Emissions
	Characteristics of Dual Fuel Engine using CNG and Jatropha Oil Methyl
	Ester
	Parvesh Kumar, Naveen Kumar, Ashish Kumar Singh
10:40 - 11:00	ME40 Effect of EGR and Water Injection on Hythane-mahua Oil
	Methyl Ester Powered Dual Fuel Medium Capacity Compression Ignition
	Engine
	Bharat Singh, Pradeep Kumar
11:00 - 11:20	ME43 Hydrogen Fuelled Internal Combustion Engines: A Review
	Study
	Bharat Singh, Pradeep Kumar

11:20 - 11:40	ME42 Pressure Behaviour in a Snubber Array of a reciprocating
	hydrogen compression system by Experiment and CFD
	M.Sq. Rahman, H. M. Jeong, H. S. Chung
11:40 - 12:00	ME51 Supercritical Transesterification of Rubber Seed (Heavea
	Brosiliances) Oil into Biodiesel: Optimization of Reaction Conditions and
	Reaction Kinetics
	Ezeanyanaso S. Chika, Okunola O. Joshua, Yahaya A. Alhassan, Igwe C.
	Chima, Elemo G. Nwakaego

ROOM 3	Electrical and Electronics
10:00 - 10:20	EE07 Performance Comparison of Three-level and Multi-level Inverter
	for grid-connected Photovoltaig System
	Chaiyant Boonmee, Pakorn Somboonkit, Napat Watjanatepin
10:20 - 10:40	EE02 Design and Construction of the Microcontroller-based Wireless
	Weather Station
	Napat Watjanatepin, Chaiyant Boonmee
10:40 - 11:00	EE10 Design of Smart Wireless Street Lighting System By Using
	Microcontroller
	Gunawan Wibisono, Harry Sudibyo, Gde Dharma Nugraha, Ndaru
	Setyawan
11:00 - 11:20	EE19 Co-Design Dual Band LNA and Bandpass Filter RF Field
	Detector for Monitoring Ground Check of Radio Navigation Aids
	Systems
	Gunawan Wibisono, Muh Wildan
11:20 - 11:40	EE16 Experimental of 3 Phase Motor Measuring System on Basic
	Engineering Laboratory
	Ong-art Sadmai

ROOM 4	Machinery and Energy
10:00 - 10:20	ME14 Effects of Mass Diffusivity on the Dehumidification Performance
	of a Damper Controlled Desiccant Dehumidifier
	Byung Ha kang, Choong-Sub Lee, Dae-Young Lee
10:20 - 10:40	ME15 Performance Experiment on Thermoeletric Cooling and Power
	Generation for Bi-Te Module
	Byung Ha kang, Yeon Ho Sim, Sukhyun Kim
10:40 - 11:00	ME19 An Experiment on Regeneration Performance of Liquid
	Desiccant for Plate Type Heat Exchanger according to the Groove Shapes
	Young Soo Chang, Byung Ha Kang

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11:00 - 11:20	ME38 A comparison on the use of Isopentane and R22 in an application
	of Tesla Turbine in Organic Rankine Cycle
	Kosart Thawichsri, Wanich nilnont
11:20 - 11:40	ME48 Failure Mode Analysis for Reliability Evaluation of Flat Plate
	Solar Collector
	Ki-Won Lee, Jung-Seok KIM, Jun-Young CHOI
11:40 - 12:00	ME34 Development and application of friction-less bearing system in
	Wind Turbine
	Vasu Kumar, Dhruv Gupta, Naveen Kumar

ROOM 5	Electrical and Electronics
10:00 - 10:20	EE17 A State of Charge Estimation Technique using a Linearized
	Battery Model
	Il Song Kim
10:20 - 10:40	EE18 Reliability Analysis of High Speed Circuit Breaker based on
	FMECA
	Y. S. Moon, K.H. Choi
10:40 - 11:00	EE20 Hardware Design and Protection Function of IED for Larger
	Capacity Generator
	Yoon Sang Kim, Chul-Won Park
11:00 - 11:20	EE22 A Study on Protection Algorithm and Characteristic Curve of IED
	for Generator Rotor
	Yu-Yeong Park, Kyung-Min Lee, Chul-Won Park
11:20 - 11:40	EE23 A Study on Optimal Design of Fast Charger in CCCV Mode for
	Extended Range Electric Vehicle
	Ji-Yong Chun, Hyun-Byeong Chae, MoonTack Cho

Wednesday 14 January, 2015

Afternoon session

ROOM 1	Machinery and Energy
13:00 - 13:20	ME39 Compressed Air Engines: A review study
	Anant Govil, Bharat Singh
13:20 - 13:40	ME47 Optimum Replacement Ratio of Fly Ash in the Low Strength
	Extruding Solid with High Volume Un-refining Fly Ash
	Myeong Jin Lee, Jin Man Kim, Duck Jin Choi, Domg Won Lee, Hwan-
	Dae Jeong
13:40 - 14:00	ME49 A Numerical Analysis of Separation Performance for Cyclone
	Oil separator Design
	Seongil Jang, Joon Ahn, and Si Hyung Lim
14:00 - 14:20	ME50 A study on the STS304, STS316 and STS430's corrosion
	behavior under the similar PEMFC condition
	MinSeok Moon, MyeongHan Yoo, JeHa Oh, ShinJae Kang
14:20 - 14:40	ME52 The Comparison of CFD Analysis and Experiments of Bubble
	Pump on Capacity of Heat Medium
	Kwangsung Lee, Jeongtae Kim

ROOM 2	Machinery and Energy
13:00 - 13:20	ME53 Experimental observation of condensation mode transition on
	hydrophobic textured surfaces
	Ki Wook Kim, Yong Hwan Kim, Ji Hwan Jeong
13:20 - 13:40	ME54 Production and Evaluation of Extruded Snacks from Blend of
	Bambara Groundnut, Hungry Rice and Carrot
	Jane N.C. Okafor, Jane C. Ani
13:40 - 14:00	ME55 A study of reduction method of metal dawn effect on butt
	welding of shipyard's main plate cut by plasma
	Jeongtae Kim, Hyomin Jeong, Kwangsung Lee, Kwangwoon Jeong,
	Hanshik Chung
14:00 - 14:20	ME56 Properties of Non-Portland Cement Matrix with the Types and
	Addition ratios of Alkali Activator
	SunGyu Park
14:20 - 14:40	ME57 Design and Manufacturing of 3MW Gearless Wind Generator
	Nguyen Ngoc Tan, Tran Anh Vo, Duong Thanh Hung, Do Hyun Chio,
	Hyun Chul Kim

ROOM 3	Machinery and Energy
13:00 - 13:20	ME58 A Study of Refrigerator Performance by a change of superheat
	Yun Jae Ju, Young Ha Park, Han Shik Chung, Seung Il Choi, Chul Su
	Kim
13:20 - 13:40	ME59 Development of a Sliding type Window with High Airtightness
	Performance
	Hyok Soo Jang, Jong Jun Park, Young Il Kim, Kwang-Seop. Chung
13:40 - 14:00	ME60 A Study on the Air Flow Rate Prediction of Portable Digital Air
	Flow Meter through Internal Flow Analysis
	Sang-Taek Oh, Seung-Wook Lee, Jeong-Rae Moon, Young-Il Kim,
	Kwang-Seop. Chung
14:00 - 14:20	ME61 Performance Evaluation of KTE-1000BA by Controlling
	Evaporator Pressure
	Yoon Jin Kang, Wook Jin Kim, Jong Sun Hwang, Seon hyeong Cho,
	Chul Su Kim
14:20 - 14:40	ME62 An Effective Hydrothermal ZnO Nanowire Growth with
	Dispersion for Power Nanogenerator Application
	Taeheon Kim, Xueqiu You, Jeehoon Han, James Jungho

ROOM 4	Machinery and Energy
13:00 - 13:20	ME63 Strength properties of Non-Portland Cement Matrix with the
	types and addition ratios of Alkali Activator
	Sun-Gyu Park
13:20 - 13:40	ME64 Experimental Study on Heat Transfer Performance of Brazed
	Plate Heat Exchangers with Single-phase Flow
	Man Bae Kim, Chang Yong Park
13:40 - 14:00	ME65 Comparative study on the performance of various wind turbine
	MPPT algorithms
	Inho Ra, Sung ho Kim
14:00 - 14:20	ME66 Characteristics on the Dynamics and Fire Resistance of the Fire
	Resistant Board made with Oyster Shell and dry (processed) Bottom Ash
	Ui In Jung, Bong Joo Kim, Jin Man Kim
14:20 - 14:40	ME67 Thermoelectric Properties of Ti-doped PbTe
	Anek Charoenphakdee