

# 2014 APCBEES BALI CONFERENCES SCHEDULE

2014 2nd International Conference on Renewable Energy and Environment (ICREE 2014)

2014 2nd International Conference on Civil and Architecture Engineering (ICCAE 2014)

2014 2nd International Conference on Biological and Medical Sciences (ICBMS 2014)

**Bali, Indonesia**

**September 27-28, 2014**

**Wina Holiday Villa Kuta Bali**

**Sponsored and Published by**



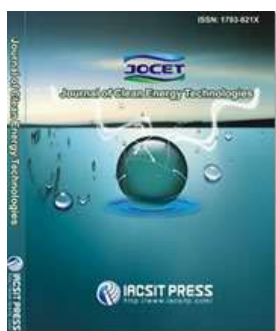
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# 2014 APCBEES BALI CONFERENCES

## INTRODUCTION

Welcome to CBEES 2014 conferences in BALI. The objective of the BALI conferences is to provide a platform for researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results and development activities in Renewable Energy and Environment, Civil and Architecture Engineering, and Biological and Medical Sciences.

### 2014 2nd International Conference on Renewable Energy and Environment (ICREE 2014)



\* Paper publishing and index: All papers for the **ICREE 2014** will be published in **Journal of Clean Energy Technologies (JOET, ISSN: 1793-821X)** as one volume, and will be indexed by Chemical Abstracts Services (CAS), Electronic Journals Library, EBSCO, Ulrich's Periodicals Directory, BE Data, Google Scholar, ProQuest and DOAJ. and sent to be reviewed by Ei Compendex and ISI Proceedings.

\* Conference website and email: <http://www.icree.net/>; [icree@cbees.org](mailto:icree@cbees.org)

### 2014 2nd International Conference on Civil and Architecture Engineering (ICCAE 2014)



\* Paper publishing and index: All papers of **ICCAE 2014** will be published in the **International Journal of Engineering and Technology (IJET)(ISSN: 1793-8236)**, and all papers will be included in the Chemical Abstracts Services (CAS), DOAJ, Engineering & Technology Digital Library, Google Scholar, Ulrich Periodicals Directory, Crossref, ProQuest, Electronic Journals Library, Index Copernicus, EI (INSPEC, IET).

\* Conference website and email: <http://www.iccae.net/>; [iccae@cbees.org](mailto:iccae@cbees.org)

### 2014 2nd International Conference on Biological and Medical Sciences (ICBMS 2014)



\* Paper publishing and index: All **ICBMS 2014** papers will be published in the **Journal of Medical and Bioengineering (JOMB, ISSN: 2301-3796)**, and all papers will be included in the Engineering & Technology Digital Library, and indexed by EBSCO, WorldCat, Google Scholar, Cross ref and sent to be reviewed by Ei Compendex and ISI Proceedings.

\* Conference website and email: <http://www.icbms.org/>; [icbms@cbees.org](mailto:icbms@cbees.org)

### Excellent Paper Award

\* One excellent paper will be selected from each oral presentation sessions, and the Certificate for Excellent Papers will be awarded at the end of each session on September 28, 2014.

## Instructions for Oral Presentations

### **Devices Provided by the Conference Organizer:**

Laptop Computer (MS Windows Operating System with MS PowerPoint & Adobe Acrobat Reader )

Digital Projectors & Screen

Laser Sticks

### **Materials Provided by the Presenters:**

PowerPoint or PDF files (Files shall be copied to the Conference Computer at the beginning of each Session)

### **Duration of each Presentation (Tentatively):**

Regular Oral Presentation: about 10 Minutes of Presentation and 2 Minutes of Q&A

Keynote Speech: 35 Minutes of Presentation and 5 Minutes of Q&A

## Instructions for Poster Presentation

### **Materials Provided by the Conference Organizer:**

The wall to put poster

### **Materials Provided by the Presenters:**

Home-made Posters

Maximum poster size is A1.

Load Capacity: Holds up to 0.5 kg.

# Brief Schedule for Conferences

**September 27, 2014**  
10:00am-5:00pm  
Arrival and Registration



**September 28, 2014**  
8:10am-6:30pm  
Registration and Conference Presentation



**Drupadi Room at the first floor**

Opening Remarks	08:10am~08:20am
Keynote Speech I	08:20am~09:00am
Keynote Speech II	09:00am~09:40am
Coffee Break & Photo Taking	09:40am~10:00am



**Session 1:** 10:00am-12:30pm (12 presenters)---(ICCAE 2014)



**Lunch:** 12:30pm~1:30pm  
(Please arrive on time at “Drupadi Room” by 1:30pm after lunch.)



**Drupadi Room**  
**Session 2:** 1:30pm-3:50pm (12 presenters)---(ICBMS 2014)



**Coffee Break:** 3:50pm-4:10pm  
It offers you a great time to communicate with other experts about your study field and research results



**Drupadi Room**  
**Session 3:** 4:10pm-6:30pm (12 presenters)---(ICCAE 2014, ICBMS 2014, ICREE 2014)



**Dinner** 7:00pm

## Presentation Tracking Contents

SESSION-1 (ICCAE 2014) Venue: Drupadi Room Session Chair: Associate Prof. Aydin Kavak Time: 10:00am-12:30pm			SESSION-2 (ICBMS 2014) Venue: Drupadi Room Session Chair: Prof. Ruslan Muhyi Time: 1:30pm-3:50pm		
PAGE	PAPER ID	PRESENTER	PAGE	PAPER ID	PRESENTER
7	A1005	Dr. Egal. Kkalaf. Aljofi	11	D0003	F. Gildenhuis
7	A0002	Seong-Cheol Lee	12	D0004	Nur Hidayah Hassan
7	A0003	Ji-Eun Kim	12	D0007	Shazlin Shaharudin
8	A0013	Shiva Jabari	12	D0008	Rania Zayed
8	A0015	Noviani Suryasari	13	D0012	Zaw Zaw Htike
8	A0017	Fawad Ahmed Najam	13	D0013	Zaw Zaw Htike
9	A0020	Achmad Fauzi	13	D2002	Jestin Chellian
9	A0021	Hary Agus Rahardjo	14	D2003	Suresh Shanmugham
10	A0022	Chaham Alalouch	14	D2005	Tjokorda Gde Tirta Nindhia
10	A0128	Dr. Ali Dashti Shafii	15	D3001	Agung Biworo
10	A0130	W. Chanseawrassamee	15	D3002	Iwan Aflanie
11	A1004	Gusti Made Oka	15	D3003	Yudi Firmanul Arifin
SESSION-3 (ICSEE, ICBBE 2014, CCEA 2014) Venue: Drupadi Room Session Chair: Dr. Saji Baby Time: 3:40pm-5:30pm			<p style="text-align: center;"><b>Attention Please:</b></p> <ol style="list-style-type: none"> <li>1. Each presenter has about ten minutes (including question and answer time) for answering the question, please control your presentation time.</li> <li>2. Please kindly prepare your PPT or poster according to your research and the time regulation before the conference and take it to the conference site.</li> <li>3. Please arrive at the conference room (Drupadi Room) when your session begins.</li> <li>4. Hoping you to have a good time during the conference.</li> </ol>		
PAGE	PAPER ID	PRESENTER			
16	A0006	Mohamed Elmuntasir Ibrahim Ahmed			
16	A1006	Chuangang Fan			
17	A1007	A. Kavak			
17	D3007	Hazwanie Hashim			
17	D3008	Mohammadreza Mohammadzad Mehryar			
18	B0003	Hasna Al Jabri			
18	B0004	Hilman Syaeful Alam			
18	B0005	Imam Djunaedi			
19	B0007	Dewi Permatasari			
19	B0009	Mark D. Villanueva			
20	B0010	Hamidreza Kamalan			
20	B3001	I Ketut Adi Atmika			

# Detailed Schedule for Conferences

September 27, 2014 (Saturday)

## Venue: Ground Floor

10:00am-5:00pm	<b>Arrival and Registration</b>
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Note: (1) You can also register at any time during the conference.

(2) The organizer doesn't provide accommodation, and we suggest you make an early reservation.

(3) One excellent paper will be selected from each oral presentation sessions, and the Certificate for Excellent Papers will be awarded at the end of each session on September 28, 2014.

Morning, September 28, 2014 (Sunday)

## Venue: Drupadi Room at the first floor

8:10am-8:20am	<b>Opening Remarks</b> <b>Dr. Saji Baby</b> Environmental Manager (Research and Consultation) & Principal Scientist, GEO Environmental Consultation, Kuwait
8:20am-9:00am	<b>Keynote Speech I</b> <b>Prof. AYDIN KAVAK</b> Department. of Civil Engineering, Kocaeli University, Kocaeli, Turkey  “Environmental solutions for sustainable geotechnical construction works”
9:00am-09:40am	<b>Keynote Speech II</b> <b>Dr. Saji Baby</b> Environmental Manager (Research and Consultation) & Principal Scientist, GEO Environmental Consultation, Kuwait  “Environmental Considerations of Municipal Solid Waste Management with Incinerator.”
09:40am-10:00am	<b>Coffee Break &amp; Taking Photo</b>

**Morning, September 28, 2014 (Sunday)****SESSION-1 (ICCAE 2014) (12 presenters)****Venue: Drupadi Room****Session Chair: Associate Prof. Aydin Kavak****Time: 10:00am-12:30pm**

A1005	<p>The Measures of Light Performance of Wind Catchers in Hot Climatic Zones  <b>Dr. Egal. Kkalaf. Aljofi</b>  University of Dammam, Saudi Arabia</p> <p><i>Abstract</i>—The development of contemporary nations and society had been characterized by the abilities and skills of their inhabitants in various sectors. Some of these nations decreased over a period of time and were substituted by others. Yet they remain marks of architecture and historical features that stand out as landmarks. The architectural heritage represents the most common and clear evidence for these nations. Therefore, many civilizations attempt to conserve, explore and develop the essence of its architectural vocabularies. GCC countries have been characterized by architectural style that emerged from its environmental and geographical circumstances. Wind catchers are one such feature. The use of this device had decreased over the years. However, they emerged again in many contemporary buildings but without their functional characteristics.</p> <p>The purpose of this research is to investigate and explore the natural light characteristics of this device through the investigation of old existing device and explore the effectiveness of its parameters and factors applicability.</p>
A0002	<p>Fiber Orientation Factor on Rectangular Cross-Section in Concrete Members  <b>Seong-Cheol Lee, Jeong-Hwan Oh, and Jae-Yeol Cho</b>  KEPCO International Nuclear Graduate School, South Korea</p> <p><i>Abstract</i>—In order to predict the post-cracking tensile behavior of fiber reinforced concrete, it is necessary to evaluate the fiber orientation factor which indicates the number of fibers bridging a crack. For investigation of fiber orientation factor on a rectangular section, in this paper, dog-bone fiber reinforced concrete specimens were prepared with the variables of concrete compressive strength, rectangular cross-section size, fiber type, and fiber volumetric ratio. After direct tension tests, the fiber orientation factor could be evaluated through counting the number of fibers on a crack. From the test results, it was investigated that the fiber orientation factor was larger than 0.5 which is generally adopted for large members, as fibers distribution is affected by the specimen size. For rational prediction of the fiber orientation factor on a rectangular concrete section, a simple model was derived from the Diverse Embedment Model (DEM), which is a rigorous model to predict the tensile behavior of steel fiber reinforced concrete. From the comparison of the measured data and the predicted values, it was found that the actual fiber orientation factor was well predicted by the proposed model.</p>
A0003	<p>A Proposal of Spatial Indexing Algorithm for Effective Visualization of GIS Based-BIM Data  <b>Ji-Eun Kim</b> and Chang-Hee Hong  Korea Institute of Civil Engineering and building Technology (KICT), Korea</p>

	<p><i>Abstract</i>—The facility maintenance using BIM data reflects a need for maintenance system that considers efficient operation of administrators and managers. This system which takes advantage of the vast amount of 3D facility data is able implement the interoperate navigation and visualization. However, the quick and smooth visualization process for a large-scale BIM data is an important factor to be solves in future. The purpose of this study is to design the spatial indexing algorithm for effective visualization of BIM data based on GIS, and propose the spatial indexing method reconfigures an IFC schema structure. It is designed with the scenario of the coordinate transformation, so the implemented algorithm is verified with IFC sample data.</p>
A0013	<p>Architecture “The Inevitable Art”: Interactions with and Impacts on the Shape and Design of the Cities  <b>Ali Dashti Shafii, Babak Monir Abbasi, Shiva Jabari</b>          Shomal University, Iran</p> <p><i>Abstract</i>—Often it is thought that architecture and urban design are not related and they are totally different identities; however, they have inextricable connection and unawareness of this point can bring about confusion. However, everyday many of architectural decisions are made without paying least attention to it. Today when architecture is presented in various forms and styles, this lack of attention and lack of awareness cause many hazards and for this reason, our cities and towns don’t enjoy desirable faces. Although buildings are remarkable individually, their collective impression is disappointing and undesirable. (Richard Hedman and Andrew Jaszweski, 1985) Art, modern architecture and urban structural transition haven’t come up suddenly: they are consequences of strong pressures from inside of the societies. The pressures themselves are the result of hasty industrial development and transitional economy. Today, architecture is mostly influenced by fashion and changes are displayed in main aspects of architectural form and identity, whereas in the past, they were only in details. Since we live in an environment which is shaped by man-made structures, architecture is unavoidable art (Ali Madanipour, 2000). In this paper, the writers attempt to deal with the position of architecture in urban design, urban planning in the past and at the present time and structure of cities.</p>
A0015	<p><i>Bolon and Lobo: Revealing the Stack Construction on Batak Simalungun and Kulawi Traditional House</i>  <b>Yusfan Adeputera Yusran, Noviani Suryasari</b>          Technische Universit ät Wien, Vienna, Austria</p> <p><i>Abstract</i>—It has long been known, the ancestors of the Indonesian have quite advanced knowledge of building technology in its day. Knowledge of the use of natural materials, as well as efforts to combine these materials into structural and construction systems still can be encountered met standing sturdy in custom houses. Among the diversity of form of construction that was built by different tribes, on the different geographical sites, identified several similarities which indicate a common thread between traditional houses scattered in archipelago to the Asia Pacific region and even Europe. This study offers another perspective of common observations about a custom house. Identification on the similarities of construction leads us to an understanding of the phenomenon of the spread of knowledge which occur or other possibilities that brings us to the understanding of how appropriate architecture for archipelago (Nusantara) conditions.</p>
A0017	<p>Paradigms for employing Interactive Computing Tools and Graphical User Interfaces (GUIs) in Structural Engineering Problems  <b>Fawad Ahmed Najam, Rao Arsalan Khushnood and Syed Ali Rizwan</b></p>



	<p>Asian Institute of Technology (AIT), Thailand</p> <p><i>Abstract</i>—The development of intelligent computational tools provides new opportunities to exploit various potentialities of computers. Many fields have taken significant advantage of the recent advancements in computing technology to adapt, apply and enhance the way people learn and solve real-world problems. In this paper, three case studies are presented which show how the development of knowledge-based computer applications can be handy to both understand and solve structural engineering numerical problems. Moreover, such tools can be useful teaching aids and can facilitate interactive learning techniques being used across the globe. The first case study application is a graphical user interface (GUI) developed in MATLAB 2009 environment for dynamic analysis of a generalized single degree of freedom system against specified force vector or ground motion. The second example is from the field of reinforced concrete design developed in Visual Basic environment for generating moment curvature relationship of reinforced concrete beams. The third case study application is also developed in MATLAB R2009a environment using GUIDE module to automate a recently proposed empirical method of concrete mix design. These interfaces are developed in a simple and interactive manner for convenient visualization of complete step-by-step process aiming not only to provide an easy tool for what-if analysis, but also to develop a learning attitude among the end users.</p>
A0020	<p>Soil Engineering Properties Improvement by Utilization of Cut Waste Plastic and Crushed Waste Glass as Additive  <b>Achmad Fauzi</b>, Zuraidah Djauhari and Usama Juniansyah Fauzi  University Malaysia Pahang, Malaysia</p> <p><i>Abstract</i>—In general, clayey soil was used as soil material or embankment material for increasing road way level before road structure being constructed. Some types of clay are expansive soil, its have been contributing to pavement failures and subsequently causing increased annual maintenance expenditure of the road. The pavements design/redesign methods are found to be the primary cause of these failures. Thus, it is quite important to propose the utilization of waste plastic and waste glass on soil subgrade improvement and then contributing decreased of pavement failures.</p> <p>This paper was evaluated the engineering properties on utilizing waste plastic High Density Polyethylene (HDPE) and waste crushed glass as additive on subgrade improvement. The research were conducted soil engineering properties, standard compaction, four days soaked California Bearing Ratio (CBR) and Triaxial test to some clayey soil samples from various sites in Kuantan. The 4 days soaked CBR of clayey soil samples were prepared at optimum water content. The variation of additive content on stabilized soil: 4%, 8%, 12% by dry total weight of soil sample respectively. The chemical element was investigated by Integrated Electron Microscope and Energy-Dispersive X-Ray Spectroscopy (SEM-EDS). Test result were shown that engineering properties and CBR on stabilized clayey samples were increased when the content of waste HDPE and Glass were increased.</p>
A0021	<p>Towards Green Building with Prefabricated Systems on Flat Development in Indonesia  <b>Hary Agus Rahardjo</b>, Priyasambada, Dwi Dinariana  Universitas Persada Indonesia Y.A.I, Indonesia</p> <p><i>Abstract</i>—The increase of population in major cities led to the rise in housing need. In line with the growth of the city, the available land in urban areas increasingly limited and expensive. Construction of flats is one solution to meet the housing needs. In practice, many conventional construction methods require lumber for formwork and scaffolding. Excessive consumption of wood has shown to reduce forest cover and</p>

	<p>damage the environment, which is negatively affecting human life. This paper examines the precast method as an alternative system that can be used. Object of research is done on the construction of flats in the city of Batam, Bantul and Bandung. Result of the discussion suggests that the prefabricated system can save the use of wood, reduce the cost of construction, maintain the environment and also contribute to the green building.</p>
A0022	<p><b>Design Criteria for Privacy-Sensitive Healthcare Buildings</b>  <b>Chaham Alalouch</b>, Peter A. Aspinall, Harry Smith  Sultan Qaboos University, Oman</p> <p><i>Abstract</i>—Architects are faced with many policies and guidance documents when designing hospitals. These differ in focus, structure and clarity. An Architect task of eliciting, understanding and responding to design criteria becomes even more confusing when it comes to intangible criteria such as patient’s privacy. The aims of this paper is to identify and review main sources of information on hospital design that are available for architects in the UK in order to summarize these criteria and distill criteria related to privacy. The focus is on visual privacy as a function of the spatial arrangements of hospital wards which is, in turn, under the control of architects. The study employs a two-fold methodological approach: semi-structured interview with experts in hospital design; and content analysis and comparative investigation of policies and guidance documents. This exhaustive study revealed that the concern about privacy is clearly expressed in the surveyed documents. The privacy-related criteria are framed within the larger context of hospital and ward design criteria. This contributes to the existing scattered literature on hospital design criteria with a new summary of design criteria at three levels: ward spatial arrangements, patient’s privacy, patient’s visual privacy. The paper concludes with recommendations for future research on privacy-sensitive healthcare building design.</p>
A0128	<p><b>Manual Rendering Techniques in Architecture</b>  <b>Dr. Ali Dashti Shafii</b>, Babak Monir Abbasi, Shiva Jabari  Shomal University, Iran</p> <p><i>Abstract</i>—One of the most important roles of architects is the spiritization of designing by means of proper tools and techniques; this is done by a good rendering job. A good hand rendering task employs correct colorings into itself to express all the details, materials, shadows and textures. Recently, though, due to rendering software for drawing a perspective and finalizing it, a growing number of young architects and designers just hop straight onto their computers and work their ideas out. I believe they should work out hands, since nothing is better to get a point across in a design meeting than to be able to sketch it up real quick right in front of the client. Many clients are still wowed by hand drawn drawings. Hand rendering can soften drawings and even make computer generated images look more personal. In this short paper, we are trying to present some essential and delicate points in hand rendering (rendu). It would be helpful for designers who wish to improve their manual rendering techniques.</p>
A0130	<p><b>Development of Attribute-Assign-Editor for Road Surface Point Cloud Data</b>  Y. Fujita, I. Kobayashi, Y. Hoshino, and <b>W. Chanseawrassamee</b>  Kumamoto University, Japan</p> <p><i>Abstract</i>—In recent years, road register has been drawn and recorded in order to determine various road statuses. The data includes road names, investigated data, starting and ending point of the road, the road intersecting point, etc. Importantly, to undergo road maintenance, annual corrections for work and road facilities are necessary. Also, research in the utilization of point cloud data in diverse fields is currently</p>

	being examined. In previous studies, the authors have been applying point cloud data to numerous stages of construction life cycle management. This paper will reveal the utilization of point cloud data by using the editor system the authors have constructed. Finally, the authors put this system into practice on road surface data, determined possible outcomes for road maintenance in road registration, and demonstrated a range of possibilities of using point cloud data in various considerations and discussions.
A1004	<p><b>Effects of Bolt Distance on Flexural Behavior of Bolt-Laminated Bamboo Beam</b>  <b>Gusti Made Oka, Andreas Triwiyono, Suprpto Siswosukarto and Ali Awaludin</b>  Gadjah Mada University, Indonesia</p> <p><i>Abstract</i>—Bolt-laminated bamboo beam was utilized as an alternative to replace wood and it was used as structural and non-structural construction material. Bamboo material then has become the most popular non-wood material in construction field. Nowadays, bamboo material is not optimally utilized yet. Many studies showed the advantages of bamboo to be compared to the other materials. The diameter of <i>Gigantochloa atrovioleacea</i> bamboo used in this study is ranged from 70 to 90 mm. The diameter of bolt is 12.7 mm. The improvement of strength and stiffness of beam can be conducted by arranging the full-culm bamboo with bolt as the shear connector. Variations of bolt distance in this study were 125 mm, 250 mm, and 500 mm. The final product of the bamboo jointed segment is bolt-laminated bamboo beam. Setup test for bolt-laminated bamboo beam uses Four Point Bending method. The strength and stiffness of bolt-laminated bamboo beam has increased as the bolt distance decreased. The distance of bolt connectors that are greater than 500 mm has no significant affect to the strength and stiffness of the beam. Therefore, the distance of bolts is suggested to be less than 500 mm.</p>

<b>12:30pm-1:30pm</b>	<b>Lunch</b>
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### **Afternoon, September 28, 2014 (Sunday)**

**SESSION–2 (ICBMS 2014) (12 presenters)**

**Venue: Drupadi Room**

**Session Chair: Prof. Ruslan Muhyi**

**Time: 1:30pm-3:50pm**

D0003	<p><b>Force Plate Balance Response of Seafarers during Still and Rough Sea Conditions</b>  <b>F. Gildenhuis, and R. Dobson</b>  Stellenbosch University, South Africa</p> <p><i>Abstract</i>—Seafarers are constantly exposed to varying ground reaction forces due to extreme weather conditions. These forces may lead to the progression of osteoarthritis and musculoskeletal injuries. The ground reaction forces of 18 subjects were measured, with Advanced Mechanical Technology Incorporation’s force plate, during still and rough sea conditions. In this study, each subject’s weight factor and Sway Index is compared for different test conditions. Weight factors varied between 1.46 and 0.66 of the normal body weight. A subject’s Sway Index measured during rough conditions is more than double</p>
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	<p>their Sway Index measured during still conditions. It was noted that more than 70% of the subjects' Sway Indexes were greater when facing the side of the ship as opposed to the front, during still and rough conditions. Body movement and postural response is increased in order to keep the body upright during rough sea conditions as opposed to still conditions. The long term effects caused to body joints, as a result of constant exposure to varying ground reaction forces, can be determined using the measured results.</p>
D0004	<p><b>Effect of <i>Centella asiatica</i> on Oxidative Stress in Rat Lung after Formalin Exposure</b>  <b>Nur Hidayah Hassan, Nur Khairah Izzati Mohd Saufi, Teh Rasyidah Ismail, Kaswandi Md Ambia and Rahim Md Noah</b>  Universiti Kuala Lumpur Institute of Medical SCI. Technology, Malaysia</p> <p><i>Abstract</i>—<i>P egaga</i> or <i>Centella asiatica</i> commonly used in traditional medicine was believed to possess antioxidant effect that can control the generation of free radicals. This study aims to investigate the protective effect of <i>Centella asiatica</i> on antioxidant status in rat lung following formalin exposure. Twenty male Wistar rats were divided into four groups: (1): control; (2): exposed with 10 % formalin; (3): exposed with 10 % formalin and treated with ethanolic extract of <i>C. asiatica</i>; (4): treated with ethanolic extract of <i>C. asiatica</i>. Exposure of 10 % formalin was performed through inhalation and <i>C. asiatica</i> was given orally. After the treatment, the rat's lungs were harvested for determination of malondialdehyde and activities of superoxide dismutase and catalase. Exposure to 10 % formalin did not increase the concentration of malondialdehyde. However, higher malondialdehyde level was noted in group which exposed with 10 % formalin and received ethanolic extract of <i>C. asiatica</i>. A significant decrease of superoxide dismutase activities was observed in rat's lung between all groups as compared to control group, yet no significant difference was observed in catalase activities. In conclusion, exposure 10 % formalin was unable to induced oxidative stress in rat lung but supplementation of <i>C. asiatica</i> are able to increase superoxide dismutase level in rat lung but not for catalase.</p>
D0007	<p><b>Muscle Synergy of Collegiate Rowers during 6 Min Maximal Rowing on Fixed and Slides Ergometer</b>  <b>Shazlin Shaharudin and Sunil Agrawal</b>  Universiti Sains Malaysia, Malaysia</p> <p><i>Abstract</i>—The purpose of this study was to evaluate the muscle synergy of collegiate rowers during 6 min maximal rowing on different stretcher mechanisms: fixed (FE) and slides ergometer (SE). The association of muscle synergy to rowing economy and physiological variables was further quantify by statistical analysis. Method: Ten collegiate rowers were recruited at the end of their competitive season. Muscle synergy was extracted from 16 rowing specific muscles using principal component analysis with varimax rotation. 6 min maximal rowing test was performed on Concept 2 FE and SE. Rowing performance and physiological variables were analyzed. Results: Rowers showed similar rowing performance on FE and SE in terms of total distance covered. Rowers rowed faster at shorter strokes when rowing on SE compared than rowing on FE. Greater maximal heart rate, energy expenditure and rowing economy were achieved on SE rowing. Three muscle synergies were extracted in both rowing conditions. Significant association was found between Synergy #1 and rowing economy. Discussion: Muscle synergy was robust between two rowing conditions. Rowing economy was highly associated with muscle synergy. As there was no significant difference in muscle synergy pattern and rowing performance during rowing on FE and SE, both ergometers could be utilized by experienced rowers.</p>
D0008	<p><b>Mesenchymal Stem Cell Infusion in Chronic Renal Failure Patients</b>  Hala Gabr and <b>Rania Zayed</b></p>

	<p>Cairo University, Egypt</p> <p><i>Abstract</i>—The recently discovered therapeutic potential of mesenchymal stem cells (MSCs) has initiated development of various therapeutic options in a number of diseases. These therapeutic options may help in improving patients' quality of life, through preventing disease progression. <i>Methods</i>: Bone marrow samples from 11 chronic renal failure patients were cultured in appropriate culture medium to isolate MSCs. MSCs obtained were identified by their plastic adherence property; positive expression of CD 271, CD 105 and negative expression of CD 34, CD 45 using flowcytometry. Harvested MSCs were injected to the patients through transfemoral catheter every other week for six months. <i>Results</i>: The patients were followed up to detect any change in their laboratory tests. Follow up revealed a statistically significant improvement in blood urea, creatinine levels and GFR of p value 0.000. <i>Conclusion</i>: Stem cells are a promising therapeutic approach to ameliorate condition in chronic renal failure patients.</p>
D0012	<p>Premalignant Pancreatic Cancer Diagnosis Using Proteomic Pattern Analysis <b>Zaw Zaw Htike</b> International Islamic University Malaysia, Malaysia</p> <p><i>Abstract</i>—Pancreatic cancer is one of the deadliest cancers due to the fact that it does not exhibit symptoms in the early stages. Furthermore, when pancreatic cancer gets diagnosed, it is usually too late. Consequently, early diagnosis is highly essential. The dawn of proteomics has brought with it a glimpse of hope of uncovering biomarkers that can be indicative of early pancreatic cancer. Proteome profiling techniques have become popular in the recent years to try to make sense of high-dimensional proteomic data and to find discrepancies between proteomes of healthy samples and cancerous samples. However, the high dimensionality of proteomics data coupled with small sample size poses a challenge. In this paper, we propose a framework using a hybrid logistic tree technique together with a feature selection technique to diagnose premalignant pancreatic cancer. We have validated our framework on a pancreatic cancer peptide mass spectrometry dataset. Satisfactory preliminary experimental results demonstrate the efficacy of our framework.</p>
D0013	<p>Leukemia Detection from Blood Smears Lokman Faivdullah, Farid Azahar, <b>Zaw Zaw Htike</b>, Shoon Lei Win, Wei Yan Nyein Naing International Islamic University Malaysia, Malaysia</p> <p><i>Abstract</i>—Leukemia is a highly fatal hematologic cancer which starts in blood-forming tissue, such as bone marrow and triggers high production of immature and abnormal shaped blood cells. Skilled medical officers or microbiologists are required to diagnose leukemia from blood smears. This poses a problem in remote areas and rural areas where there is a shortage of qualified medical personnel. This paper proposes a computer-aided diagnosis system that can detect and classify leukemia from blood microscopic images. Satisfactory preliminary experimental results demonstrate the efficacy of our system.</p>
D2002	<p>Pharmacodynamic Evaluation of Tolterodine Tartrate Proniosomal Gel for Overactive Bladder Treatment <b>Jestin Chellian</b>, Guok Leen, Rajan Rajabalaya, Sheba David International Medical University, Kuala Lumpur, Malaysia</p> <p><i>Abstract</i>—The purpose of the study is to formulate and evaluate proniosomal transdermal delivery systems for tolterodine tartrate besides undergoing <i>in vitro</i> and <i>in vivo</i> studies for treatment of overactive bladder syndrome. Method: Proniosomal gels are prepared using various non-ionic tweens and spans, lipids and</p>

	<p>soy lecithin via coacervation phase separation method. The formulations are evaluated for their physiochemical properties such as drug entrapment efficiency, vesicles morphology and sizes as well as ATR-FTIR analysis. <i>In vitro</i> skin permeation study and <i>in vivo</i> animal studies are also been carried out to study the effectiveness of the formulations. Results: Tolterodine tartrate is encapsulated in proniosomal vesicles with high yield of above 91% with span (20:60) formulations having the highest entrapment efficiency. <i>In vitro</i> skin permeation study shows concentration-dependent first order permeation of drug over 8 hours and is predicted to have a prolonged effect more than 8 hours. In pharmacodynamics studies such as salivary secretion and micturition shows that proniosomal gel formulation of tolterodine tartrate has quicker recovery of cholinergic effect on salivary gland and improved bladder function than the oral formulation. It is also found that Span formulation S1 has comparable effectiveness as oral formulation. Histological studies of the rats bladder shows improvement in the bladder morphology with proniosomal gel formulation S1 treatment over formulation S3. Conclusion: This study demonstrates the feasibility of using proniosomal vesicles as drug carrier for transdermal delivery of tolterodine tartrate with span (20:60) combinations series being the better formulation.</p>
D2003	<p><b>A Study on Pattern of Oral Hypoglycemic Agents Use in Type 2 Diabetes Mellitus Patient in Outpatient Pharmacy Department of a Tertiary Hospital, Malaysia</b>  <b>Suresh Shanmugham, Tai Ann Nny, Nurul Suhaida, Suresh Kumar, Sajesh K Veetil</b>  <b>International Medical University, Kuala Lumpur, Malaysia</b></p> <p><i>Abstract</i>—The prevalence of diabetes mellitus in Malaysian adult population is on the increase which showed in recent studies. With this increase, it has caused in a significant rise in the prescription volume. By using drug utilization research, it helps to determine the profile of oral hypoglycemic agents use. Thus, this study aims to determine the current prescribing trends of oral hypoglycemic agents in a tertiary care hospital setting in Malaysia. Method: This retrospective study was undertaken for a period of 6 months in a tertiary hospital, Malaysia. A total of 1800 prescriptions containing at least one oral hypoglycemic agent were randomly picked and evaluated. The demographic data, pattern of oral hypoglycemic agents use, therapeutic modality were analyzed. Results: The study found that 60% of total selected prescriptions were claimed by males. The greatest numbers of patients (32.5%) were in the age group of 51-60 years. The most widely prescribed oral hypoglycemic agents were Metformin (77.2%), followed by Gliclazide (53.8%). Combination therapy constituted about two- third of the total selected prescription over 6 months period and monotherapy constituted about one- third. Conclusion: Metformin was the most widely utilized anti-diabetic drugs and followed by gliclazide. The most common pattern of oral hypoglycemic use was combination therapy, mainly dual oral hypoglycemic agent's therapy and insulin plus oral hypoglycemic agent's therapy.</p>
D2005	<p><b>New Route in Degumming of <i>Bombyx mory</i> Silkworm Cocon for Biomaterial</b>  <b>Tjokorda Gde Tirta Nindhia, I Wayan Surata, Zdenek Knejzlik, Tomas Ruml and Tjokorda Sari Nindhia</b>  <b>Mechanical Engineering, Engineering Faculty, Udayana University, Indonesia</b></p> <p><i>Abstract</i>—This research focused on silkworm cocoon of <i>Bombyx mori</i> grown in Indonesia. In this study the degumming process to eliminate the sericin from the fiber was explored and the result is a separated fiber that is tested for its biocompatibility. The silk can be prepared by degumming method of boiling in 0.01 M NaOH for 1 hour. Observation under microscope indicate that The human osteosarcoma cell line (U2OS) able to attach and grow during following two days. This is an indication that the fiber having good biocompatibility by degumming process that is introduced in this report.</p>

D3001	<p><b>Antidiabetic and Antioxidant Activity of Jackfruit (<i>Artocarpus heterophyllus</i>) Extract</b>  <b>Agung Biworo</b>, Efrilia Tanjung, Iskandar, Khairina, Eko Suhartono  Medical Pharmacology Department, School of Medicine Lambung Mangkurat University, Indonesia</p> <p><i>Abstract</i>—The <i>Artocarpus heterophyllus</i> (Jackfruit) is a species of tree of the mulberry family Moraceae. The plants of <i>Artocarpus</i> species have been used by traditional folk medicine in Indonesia. can be useful as anti-bacterial, anti-diabetic, anti-inflammatory, antioxidant and anti-helminthics. The present study was aimed to evaluate antidiabetic and antioxidant activity of aqueous extract of Jackfruit. The antidiabetic activity were determined by inhibition of haemoglobin glycation method. Phytochemical constituent like ascorbic acid, <math>\beta</math>-carotene and lycopene also determined. Antioxidant activity was measured by hydroxyl radical and hydrogen peroxide scavenging activity, and chellating effect of ferrous iron. From the result of this study we can see the increasing of haemoglobin glycation concentration is followed by the increasing of jackfruit extracts concentration. From this study also we found the IC 50 of jackfruit extracts is 56,43 %. The result of this study also showed that the extract of jackfruit has a phytochemical constituent with ascorbic acid is the highest, and followed by <math>\beta</math>-carotene and lycopene. Jackfruit also has antioxidant activity. The highest antioxidant activity is scavenging hydroxyl radical activity and followed by scavenging hydrogen peroxide and chellating of ferrous iron. The result of this study suggest that the jackfruit extract potential as an diabetic agent.</p>
D3002	<p><b>Effect of Heavy Metal on Malondialdehyde and Advanced Oxidation Protein Productes Concentration: A Focus on Arsenic, Cadmium, and Mercury</b>  <b>Iwan Aflanie</b>, Ruslan Muhyi and Eko Suhartono  Forensic Department, School of Medicine Lambung Mangkurat University, Banjarmasin, Indonesia</p> <p><i>Abstract</i>—Heavy metal and their salts are considered as very important group of environmental pollutant which in small quantities may be essential nutrients that protect your health, yet in larger quantity it become toxic and dangerous to human being. One of the major mechanisms behind heavy metal toxicity has been attributed to oxidative stress. This study aimed to invetigate the effect of Arsenic (As), Cadmium (Cd), and Mercury (Hg) on Malondialdehyde (MDA) and Advanced Oxidation Protein Products (AOPP) concentration <i>in vitro</i>. MDA and AOPP level are increased during the exposure of As, Cd, and Hg. Furthermore MDA level positively correlated with AOPP level. It can be concluded from presented study that Arsenic, Cadmium and Mercury caused the increasing of MDA and AOPP levels. This study also suggested that the exposure of Arsenic, Cadmium and Mercury can caused oxidative stress and inflammation.</p>
D3003	<p><b><i>In Vitro</i> Anti-Inflammatory Activities of Red Gemor (<i>Nothaphoebe cf umbelliflora</i>)</b>  <b>Yudi Firmanul Arifin</b>, Siti Hamidah, Sudin Panjaitan, Eko Suhartono  Study Program of Forestry Lambung Mangkurat University and Consortium of Sustainable Tropical Forest Management, Indonesia</p> <p><i>Abstract</i>—<i>Gemor</i> (<i>Nothaphoebe cf umbelliflora</i>) is a tree species that found naturally in swampy forest of Sumatra and Kalimantan, Indonesia. The anti-inflammation activity of <i>red gemor</i> plant parts have not been investigated, therefore many study should be performed. Thus our study aimed to investigate the anti-inflammation effect of different parts of <i>red gemor</i>. Phytochemical analysis of diffrent parts of <i>red gemor</i> extracts revealed the presence of various biochemical compounds such as alkaloids, flavonoids,</p>

	<p>phenolic compounds, triterpenoids and steroid. The anti-inflammatory activities was determined by inhibition protein denaturation method. Result of this study revealed there is inhibitory action on protein denaturation. The percentage inhibition varied from 20,154 to 71,667 for highest concentration to the lowest concentration. The IC50 was found to be 60 for twig, 47,8 for bark, and 116,2 for leaves of <i>red gemor</i>. To determined which one of the phytochemical constituent in different parts of <i>red gemor</i> are most influence in anti-inflammation activity, we used linear correlation between IC 50 with alkaloid and flavonoid content in different parts of <i>red gemor</i>. The result suggest that flavonoid are the most influence to protein denaturation (<math>R^2 = 0,9927</math>). The results of the present study suggest that the different parts of <i>red gemor</i> have anti-inflammation activity. The anti-inflammation activity of different parts of <i>red gemor</i> due to the phytochemical constituents content in different parts of <i>red gemor</i>, such as flavonoid and alkaloid.</p>

3:50pm-4:10pm

Coffee Break



### Afternoon, September 28, 2014 (Sunday)

SESSION-3 (ICCAE 2014, ICBMS 2014, ICREE 2014) (12 presenters)

**Venue: Drupadi Room**

**Session Chair: Dr. Saji Baby**

**Time: 4:10pm-6:30pm**

A0006	<p>Selective Adsorption of Cadmium Species onto Organic Clay Using Experimental and Geochemical Speciation Modeling Data  <b>Mohamed Elmuntasir Ibrahim Ahmed</b>  Kuwait Institute for Scientific Research, Kuwait</p> <p><i>Abstract</i>—The effect of cadmium speciation on cadmium adsorption onto Hexadethyl-trimethyl ammonium (HDTMA) modified montmorillonite was investigated experimentally and using Minteqa2 geochemical speciation model. The results revealed that the increase in cadmium uptake at higher pH values is selective and directly related to the nature of species present and that this increase does not affect the form of cadmium species adsorbed onto the HDTMA modified montmorillonite.</p>
A1006	<p>Experimental Study on Tunnel Fire Behaviors under Natural Ventilation Using Shafts  <b>Chuangang Fan, Jie Ji and Jinhua Sun</b>  University of Science and Technology of China, China</p> <p><i>Abstract</i>—Tunnel safety has drawn public attention due to the occurrence of many catastrophic fires in</p>



	<p>recent years. Meanwhile, natural ventilation types such as solar chimney and vertical shaft have become popular in relevant constructions. However, natural ventilation mode using shafts in tunnel fires are still lacking in quantitative analyses. In this study, a set of model scale experiments was carried out to investigate the influence of natural ventilation using shafts on tunnel fire behaviors. Two kinds of fuel, methanol and n-heptane, were used to model the fire in a small scale tunnel and three shafts were employed. The effects of natural ventilation on fire burning rate, fire plume temperature and flame height were investigated detailedly and the experimental results were compared with the previous studies.</p>
A1007	<p><b>Reuse of Ground Granulated Blast Furnace Slag (GGBFS) in Lime Stabilized Embankment Materials</b>  <b>A. Kavak, G. Bilgen</b>  Kocaeli University, Kocaeli, Turkey</p> <p><i>Abstract</i>—This paper presents an effective way of utilizing the ground granulated blast furnace slag (GGBFS), which is a by-product of the steel manufacturing process with lime for stabilization of road materials. In the study Ankara clay was used for stabilization. Although slag–lime and clay mixtures do not affect optimum water contents of clay significantly, they decrease dry density and smoothes Proctor curve. Then, the soil transforms into a rapid structure and the modulus of elasticity increases. When the results of the experiments were evaluated, unconfined compressive strength (UCS) and soaked California Bearing Ratio (CBR) values of the soils have shown significant increases. These increases reach to 46 times in CBR values for Ankara clay compared to natural case in 28 day-cured samples. This stabilization technique is more effective than the lime alone and also the slag will prevent the ettringite formation that occurs in lime stabilization with sulfate rich soils that leads swelling behaviour. And finally the slag may turn from a waste material into a valuable product for road construction works with huge volumes even at far away from the steel factories.</p>
D3007	<p><b>The Relevance of Genetic Polymorphism of <i>CYP1A1</i>, <i>ICAM-1</i>, <i>TNF-<math>\alpha</math></i> and <i>INSR</i> Genes in Women with Polycystic Ovary Syndrome (PCOS)</b>  <b>Hazwanie Hashim, Gan S.Y. and Sivalingam Nalliah</b>  International Medical University (IMU), Malaysia</p> <p><i>Abstract</i>—Polycystic Ovarian Syndrome (PCOS) is a complex endocrine disorder commonly seen in about 6.5 - 8% of women of reproductive age. Polygenic trait is common in PCOS and various factors related to the androgenic pathways and the metabolic syndrome have been studied including genes encoding inflammatory cytokines. In this respect we aimed to study the involvement of polymorphisms of four genes; cytochrome P450 1A1 (<i>CYP1A1</i>), intercellular adhesion of molecule (<i>ICAM-1</i>), tumour necrosis factor alpha (<i>TNF-<math>\alpha</math></i>) and insulin receptor gene (<i>INSR</i>). Twelve women fulfilling the criteria of PCOS and 145 controls were recruited. In this study, <i>TNF-<math>\alpha</math></i> -1031 (T/C) (rs1799964) is found to be significantly higher in PCOS group compared to healthy controls (OR = 5.044; CI: 2.139 - 11.899; p-value &lt; 0.05). This suggests <i>TNF-<math>\alpha</math></i> -1031 (T/C) appears to be a potential candidate as a molecular marker in determining PCOS risk. This study also found a strong association between PCOS and obesity (BMI&gt;25); obesity is a major risk factor of PCOS. Studies of association enables clinicians to have a better understanding of the genetic factors for PCOS especially in a multi-ethnic population such as Malaysia, where robust data addressing PCOS are still lacking.</p>
D3008	<p><b>Human Papillomavirus and Esophageal Carcinoma: A Study in China</b>  <b>Mohammadreza Mohammadzad Mehryar, Jintao Li1, and Yi Zeng</b>  Beijing university of technology, China</p>

	<p><i>Abstract</i>—Esophageal squamous cell carcinoma (ESCC) is considered as the ninth most common malignancy in the world. There are a number of suspected casual reasons of this type of carcinoma. The association of viral infection with EC (esophageal carcinoma) has been reported in last 30 years. Human papillomavirus (HPV) is said to be a major aetiology in areas with high incidence of esophageal carcinoma, but the prevalence and the role of HPV virus in the aetiology of esophageal squamous cell carcinoma (ESCC) is still uncertain. In this study we designed to evaluate the prevalence of HPV in EC cases diagnosed in pathology department of Hebei, China. In this study 170 cases that were pathologically diagnosed as esophageal carcinoma were obtained from department of pathology files at Hebei province between 2011-2013. DNA material was extracted from formalin-fixed paraffin-embedded tissues (FFPET) and PCR was performed to detect HPV genome. In this study negative and positive control were used for HPV 16/18 and beta-globin PCR as internal control. More than 95% of FFPETs had acceptable result in DNA qualification PCR test. Overall prevalence of HPV in tumour tissues was 81.17% in GP6+/GP5+ PCR, 40.58% by HPV16 and 49.41% for HPV18. The presence of HPV DNA in esophagus tumours (high risk HPV types 16 and 18) implicates HPV as one of the possible aetiology factors in esophageal carcinoma.</p>
B0003	<p><b>Studies on the Effect of Nano Photocatalysis in the Pretreatment of Seawater Reverse Osmosis Desalination</b>  <b>Hasna Al Jabri and S Feroz</b>  Caledonian College of Engineering</p> <p><i>Abstract</i>—Sultanate of Oman is experiencing rapid increase in water demand due industrialization and population growth. Desalination contributes for about 35% of water demand in Oman and almost all desalination plants are based on conventional energy source. Utilization of solar energy in desalination is good option due its abundance availability throughout the year in Sultanate of Oman. In this paper, the effect of titanium dioxide (TiO<sub>2</sub>) nano photocatalysis for the pretreatment step of reverse osmosis desalination has been studied. A tubular photo catalytic reactor was operated with TiO<sub>2</sub> thin film coating mode as well as in suspension mode in the presence of sun light. The effect of various parameters viz., Total Organic Carbon (TOC), Dissolved Oxygen (DO), Total Dissolved Solids (TDS), pH, and Salinity were studied.</p>
B0004	<p><b>Structural Integrity Evaluation of Generator Retaining Ring at Dieng Geothermal Power Plant</b>  <b>Hilman Syaeful Alam, Imam Djunaedi, Aditya Sukma Nugraha and Demi Soetraprawata</b>  Technical Implementation Unit for Instrumentation Development, Indonesian Institute of Sciences</p> <p><i>Abstract</i>—The structural integrity of generator retaining ring at Dieng geothermal power plant has been evaluated using analytical and finite element method base on the scenario of the over speed at 100%, 120% and 150% of rated speed. To validate the evaluation, penetrant testing is applied with the retaining ring remains patches to its rotor. Base on the evaluation results of both methods, safety factor against yielding is greater than 1.0. Then based on the penetrant testing, it was not detected the presence of defects on the retaining ring generator surface. However from the displacement result which obtained by finite element, the displacement in third case has the same value as the interference therefore there is a possibility of retaining ring movement from its position that can lead to fretting failure.</p>
B0005	<p><b>In Situ Inspection for Generator Retaining Rings Of Geothermal Power Plant 60 MW</b>  <b>Imam Djunaedi and Hilman Syaeful Alam</b></p>

	<p>Research Center for Physic, Indonesian Institute of Sciences</p> <p><i>Abstract</i>—The structural integrity of generator retaining ring at Dieng geothermal power plant 60 MW has been investigated using NDT method, i.e. visual testing, penetrant testing, ultrasonic testing and crack depth testing. The purpose of this study is to evaluate the integrity of retaining ring without removing the retaining ring from the rotor, because releasing the retaining ring from the generator rotor will eliminate residual stresses therefore the defects are not detected due to residual stress. In addition, this operation has major implications of damage risk, cost, safety and time. The results of the inspection of the above method was not detected the presence of defects on both sides of the retaining ring generator (turbine and exciter side). Therefore, it can be concluded that the retaining ring is not degraded and the service life of components is still appropriate with the specifications of the manufacturer.</p>
B0007	<p>Socio-Environmental Aspects on Solid Waste, Air Pollution, Water and Forest Conservation Surrounding Geothermal Area: a Success Story  <b>Dewi Permatasari</b>, Eko Yuniarto, Wahyu Somantri, and Dedi Supriadi  PT. Indonesia Power – Generation Business Unit of Kamojang</p> <p><i>Abstract</i>—This paper aims to introduce a company successfulness on environmental management of geothermal industry by enhancing community around geothermal power operation area. Toward improvement of environmental compliance effort, corporate management committed to support the Strategic Programs for environmental and social aspect. Methods on this paper underlined the innovation to integrate environmental behaviorism within social life. It has done by bring together the community, government, and company to persuade public participation on strategic programs that have been successfully held.</p> <p>The voluntary program was “Education of Energy Saving and Climate Change for 50 Students”, which is strongly connected to energy efficiency and air pollution aspect. It was then followed by the other socio-environmental aspects about the introduction of municipal solid and hazardous waste for “Pelag Local Community”. On biodiversity conservation, 25,000 endemic crops were planted in Kamojang Forest, and then Collaborative Action to Conserve the Cikaro Stream was completing the program that involves public participation on water conservation. This entire distinguished program held in 2014 with emphasized purpose is to preserve and protect the environment through community development.</p> <p>To sum up, successful programs shows that collaboration among stakeholder can improve the social values in order to conserve the environment. It is also periodically reported to the Ministry of Environment under Environmental Compliance Assessment, PROPER.</p>
B0009	<p>Computational and Experimental Study of a Gas/Steam Turbine – derivative Axial Flow Impulse-type Hydraulic Turbine  <b>Mark D. Villanueva</b>, and Jonathan C. Maglasang  Mindanao State University – Iligan Institute of Technology</p> <p><i>Abstract</i>—In large water supply system where the source is elevated, the water reaches its destination with still a lot of energy to spare. This energy can be tapped by installing appropriate hydraulic turbine along the pipeline. A prototype gas/steam turbine-derivative axial flow impulse-type was designed and simulated using the Solid Works flow simulation software. It was then fabricated and tested. The experimental results indicated that at no load condition, the rotational speed ranges from 650 to 850 RPM depending on the water flow rate which ranges from 8.51 to 18.34 l/s. At 381 RPM, the torque was 3.05 N-m and the efficiency was 42%. The maximum efficiency occurred within the 300-350 RPM range. The flow at the</p>

	exit was not much disturbed demonstrating that its installation did not hamper the supply line. It is recommended that further studies of prototypes designed on the same concept be done.
B0010	<p>Utilizing Methane Generated in Anaerobic Leachate Treatment as Renewable Energy  <b>Hamidreza Kamalan</b>  Pardis Branch, Islamic Azad University</p> <p><i>Abstract</i>—Methane is a main source of energy. On the other hand, it is a major greenhouse gas. This study aims to investigate generation of methane as energy source from municipal solid waste leachate anaerobic treatment through an up flow anaerobic sludge blanket system.</p> <p>Results show Chemical Oxygen Demand removal has a direct relation with methane generation. It is notable that the about two third of produced biogas consists of methane. On this basis numerical models have been developed to predict methane emission based on time.</p>
B3001	<p>Design on Direct Crushing Garbage in the Garbage Dump Truck (Case Study for Denpasar City, Bali, Indonesia)  <b>I Ketut Adi Atmika</b>, I DG. Ary Subagia, and Tjokorda Gde Tirta Nindhia  Department of Mechanical Engineering, Engineering faculty, Udayana University</p> <p><i>Abstract</i>—In transporting of garbage, a phenomenon that often occurs is spilled garbage on the street. Aside from cause traffic, congestion and air pollution pose a unpleasant odor to the environment, either directly or indirectly have an impact also on public health. This study examines and assesses the performance of traction and vehicle stability performance of trucking garbage crusher which is integrated with screw operated at various conditions / field operations. The analysis is focused on analyzing the behavior of the vehicle rolling. Analysis of vehicle traction performance model is able to overcome various obstacles, with a capable pass climbs up to 49 degrees, with the traction needed up to 2700 N and the minimum prediction engine power of 120 hp. On the road conditions turn up the speed of 60 km / h, the magnitude of the normal force on each wheel is still positive, then the vehicle is still safe for the surrounding conditions.</p>

7:00pm	Dinner
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**Conferences ending, thanks !**

# Conference venue

## Wina Holiday Villa Kuta Bali

<http://www.holidayvillakutabali.com/>

Imagine being warmly welcomed at Wina Holiday Villa – on the most popular and beautiful beach located at Kuta Bali, just 3 minutes walk from the famed Kuta beach. Be embraced by traditional Balinese architectures blended with lush tropical gardens. Be at ease with the sophistication of modern facilities, be pampered by warm graces and services from the heart. Indeed, the Wina Holiday Villa Kuta Bali is the place where imaginations become a true paradise reality.



### Contact Method:

ADD: Jalan Pantai Kuta, Kuta Po Box 2099, Bali Indonesia TEL: +62 361 753063

### How to get there

#### By flight

Bali is accessible by major airlines.

The Ngurah Rai International Airport services Garuda Indonesia, AirAsia, Air India, All Nippon Airways, Asiana, Austrian Airlines, China Airlines, Cathay Pacific, Eva Airways, Garuda Indonesia, Indian Airline, Japan Airlines, KLM Royal Dutch, Korean Airlines, Lion Airlines, Lufthansa, Malaysia Airlines, Merpati Nusantara, Northwest Airlines, Qatar Airways, Royal Brunei, Singapore Airlines, Thai International Airways, Qantas Airways and Jetstar

#### By road

Kuta is 15 minutes drive from the Ngurah Rai International Airport

Taxi charges from the airport to Denpasar is less than USD5.00. The best and most popular taxis are the blue cabs from Bali Taxi (0361-701111) and the orange ones from Praja Taxi (0361-289090).

#### By sea

Two of the four Bali sea ports anchored by international cruise ships and yachts are Bena, South of Denpasar and Padangbai on the East.

Regular ferry services the Padangbai-Lombok route four times daily.

## APCBEEES FORTHCOMING CONFERENCES

<http://www.cbees.org/events/>

DATE	NAME		PUBLICATION
Nov 29-30, 2014 Mauritius	<b>ICCEN 2014</b>	2014 3rd International Conference on Civil Engineering (ICCEN 2014) <a href="http://www.iccen.org/">www.iccen.org/</a>	Volume of Journal (IPCBEE, ISSN: 2010-4618)
	<b>ICECB 2014</b>	2014 3rd International Conference on Environment, Chemistry and Biology (ICECB 2014) <a href="http://www.icecb.org/">www.icecb.org/</a>	Volume of Journal (IPCBEE, ISSN: 2010-4618)
	<b>ICFSH 2014</b>	2014 International Conference on Food Sciences and Health (ICFSH 2014) <a href="http://www.icfsh.org/">www.icfsh.org/</a>	Journal of Advanced Agricultural Technologies (JOAAT ISSN: 2301-3737)
Dec. 13-14, 2014, Kuala Lumpur, Malaysia	<b>ICESR 2014</b>	2014 International Conference on Environmental Systems Research (ICESR 2014) <a href="http://www.icesr.org">www.icesr.org</a>	APCBEE Procedia (Journal under Elsevier, ISSN: 2212-6708)
	<b>ICLSE 2014</b>	2014 3rd International Conference on Life Science and Engineering (ICLSE 2014) <a href="http://www.iclse.org">www.iclse.org</a>	Journal of Life Sciences and Technologies (JOLST, ISSN: 2301-3672)
	<b>ICFB 2014</b>	2014 3rd International Conference on Future Bioengineering (ICFB 2014) <a href="http://www.icfb.org">www.icfb.org</a>	Volume of Journal (IPCBEE, ISSN: 2010-4618)
Dec. 27-28, 2014, Phuket, Thailand	<b>ICABT 2014</b>	2014 2nd International Conference on Agriculture and Biotechnology (ICABT 2014) <a href="http://www.icabt.org">www.icabt.org</a>	Volume of Journal (IPCBEE, ISSN: 2010-4618)
	<b>ICESB 2014</b>	2014 4th International Conference on Environment Science and Biotechnology (ICESB 2014) <a href="http://www.icesb.org">www.icesb.org</a>	APCBEE Procedia (Journal under Elsevier, ISSN: 2212-6708)
	<b>ICCSE 2014</b>	2014 3rd International Conference on Chemical Science and Engineering (ICCSE 2014) <a href="http://www.iccse.org">www.iccse.org</a>	International Journal of Chemical Engineering and Applications (IJCEA, ISSN:2010-0221)
Jan. 10-11, 15, 2014, Dubai, UAE	<b>ICEBE 2015</b>	The aim objective of the 2015 International Conference on Environment and Bio-Engineering <a href="http://www.icebe.org/">http://www.icebe.org/</a>	APCBEE Procedia (Journal under Elsevier, ISSN: 2212-6708)
	<b>ICPPE 2015</b>	2015 2nd International Conference on Petroleum and Petrochemical Engineering <a href="http://www.icppe.org/">http://www.icppe.org/</a>	International Journal of Environmental Science and Development (IJESD, ISSN:2010-0264)
	<b>ICGCE 2015</b>	2015 2nd International Conference on Geological and Civil Engineering <a href="http://www.icgce.org/">http://www.icgce.org/</a>	Volume of Journal (IPCBEE, ISSN: 2010-4618)

2014 APCBEES BALI CONFERENCES

Jan. 24-25, 2015, Taipei, Taiwan	<b>ICFEE 2015</b>	2015 5th International Conference on Future Environment and Energy <a href="http://www.icfee.org/">http://www.icfee.org/</a>	Journal of Clean Energy Technologies (JOCET, ISSN: 1793-821X)
	<b>ICBBB 2015</b>	2015 5th International Conference on Bioscience, Biochemistry and Bioinformatics <a href="http://www.icbbb.org/">http://www.icbbb.org/</a>	Volume of Journal (IPCBEE, ISSN: 2010-4618)
	<b>ICCCH 2015</b>	2015 4th International Conference on Climate Change and Humanity <a href="http://www.iccch.org/">http://www.iccch.org/</a>	APCBEE Procedia (Journal under Elsevier, ISSN: 2212-6708)
Feb. 08-09, 2015, Rangoon, Burma	<b>ICOG E 2015</b>	2015 International Conference on Geological Engineering <a href="http://www.icoge.org/">http://www.icoge.org/</a>	International Journal of Geological Engineering (IJGE, ISSN: 2301-3818)
	<b>ICERE 2015</b>	2015 International Conference on Environment and Renewable Energy <a href="http://www.icere.org/">http://www.icere.org/</a>	Journal of Environmental Science and Development (IJESD, ISSN:2010-0264)
	<b>ICFES 2015</b>	2015 International Conference on Food and Environmental Sciences <a href="http://www.icfes.org/">http://www.icfes.org/</a>	International Journal of Food Engineering (IJFE, ISSN: 2301-3664)
Feb. 14-15, 2015, Amsterdam, Netherlands	<b>ICESD 2015</b>	2015 6th International Conference on Environmental Science and Development <a href="http://www.icesd.org/">http://www.icesd.org/</a>	Journal of Environmental Science and Development (IJESD, ISSN:2010-0264)
	<b>ICCCP 2015</b>	2015 5th International Conference on Chemistry and Chemical Process <a href="http://www.cbees.org/events/">http://www.cbees.org/events/</a>	International Journal of Chemical Engineering and Applications (IJCEA, ISSN:2010-0221)
	<b>ICCGE 2015</b>	2015 4th International Conference on Clean and Green Energy <a href="http://www.iccge.org/">http://www.iccge.org/</a>	Journal of Clean Energy Technologies (JOCET, ISSN: 1793-821X)
Mar. 10-11, 2015, Seoul, South Korea	<b>ICFEB 2015</b>	2015 6th International Conference on Food Engineering and Biotechnology <a href="http://www.icfeb.org/">http://www.icfeb.org/</a>	International Journal of Food Engineering (IJFE, ISSN: 2301-3664); Journal of Medical and Bioengineering (JOMB, ISSN: 2301-3796)
	<b>ICBET 2015</b>	2015 5th International Conference on Biomedical Engineering and Technology <a href="http://www.icbet.org/">http://www.icbet.org/</a>	Volume of Journal (IPCBEE, ISSN: 2010-4618)
	<b>ICEII 2015</b>	2015 5th International Conference on Environment and Industrial Innovation <a href="http://www.iceii.org/">http://www.iceii.org/</a>	International Journal of Innovation, Management and Technology (IJIMT, ISSN: 2010-0248); International Journal of Environmental Science and Development (IJESD, ISSN:2010-0264)

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Mar. 19-20, 2015, Florence, Italy	<b>ICCBS 2015</b>	2015 2nd International Conference on Chemical and Biological Sciences <a href="http://www.iccbs.org/">http://www.iccbs.org/</a>	International Journal of Chemical Engineering and Applications (IJCEA, ISSN:2010-0221); International Journal of Bioscience, Biochemistry and Bioinformatics (IJBBB, ISSN: 2010-3638)
	<b>ICCUE 2015</b>	2015 2nd International Conference on Civil and Urban Engineering <a href="http://www.iccue.org/">http://www.iccue.org/</a>	International Journal of Engineering and Technology (IJET, ISSN:1793-8236)
	<b>ICFSN 2015</b>	2015 2nd International Conference on Food Security and Nutrition <a href="http://www.icfsn.org/">http://www.icfsn.org/</a>	Volume of Journal (IPCBEE, ISSN: 2010-4618)
Apr. 6-7, 2015, Kyoto, Japan	<b>ICCOE 2015</b>	2015 2nd International Conference on Coastal and Ocean Engineering <a href="http://www.iccoe.org/">http://www.iccoe.org/</a>	Journal of Environmental Science and Development (IJESD, ISSN:2010-0264)
	<b>ICCFE 2015</b>	2015 2nd International Conference on Chemical and Food Engineering <a href="http://www.iccfe.org/">http://www.iccfe.org/</a>	International Journal of Chemical Engineering and Applications (IJCEA, ISSN:2010-0221); International Journal of Food Engineering (IJFE , ISSN: 2301-3664)
	<b>ICBAE 2015</b>	2015 International Conference on Biotechnology and Agriculture Engineering <a href="http://www.icbae.org/">http://www.icbae.org/</a>	Journal of Advanced Agricultural Technologies (JOAAT, ISSN:2301-3737); Journal of Medical and Bioengineering (JOMB, ISSN: 2301-3796)
Apr. 24-25, 2015, Istanbul,Turkey	<b>ICESE 2015</b>	2015 5th International Conference on Environment Science and Engineering	Volume of Journal ( IPCBEE, ISSN: 2010-4618)
	<b>ICLST 2015</b>	2015 5th International Conference on Life Science and Technology	Journal of Life Sciences and Technologies (JOLST, ISSN: 2301-3672)
	<b>ICBFS 2015</b>	2015 5th International Conference on Biotechnology and Food Science	International Journal of Food Engineering (IJFE , ISSN: 2301-3664); Journal of Medical and Bioengineering (JOMB, ISSN: 2301-3796)

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<b>Note</b>



