2014 APCBEES BANGKOK CONFERENCES SCHEDULE

2014 3rd International Conference on Environment, Energy and Biotechnology (ICEEB 2014)
2014 4th International Conference on Asia Agriculture and Animal (ICAAA 2014)
2014 3rd International Conference on Chemical and Process Engineering (ICCPE 2014)
2014 2nd Journal Conference on Bioscience, Biochemistry and Bioinformatics (JCBBB 2014)

Hotel ibis Bangkok Riverside, Bangkok, Thailand on June 9-10, 2014

Chulaongkorn University, Bangkok, Thailand on June 11, 2014

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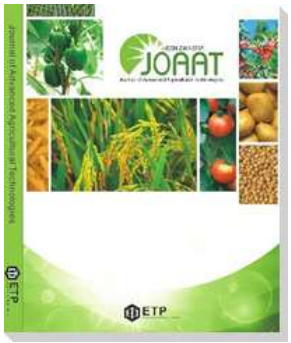
Conferences Introduction

Welcome to CBEES 2014 conferences in Bangkok, Thailand. The objective of the Bangkok 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 Environment, Energy and Biotechnology (ICEEB 2014), Asia Agriculture and Animal (ICAAA 2014), Chemical and Process Engineering (ICCPE 2014), Bioscience, Biochemistry and Bioinformatics (JCBBB 2014).

2014 3rd International Conference on Environment, Energy and Biotechnology (ICEEB 2014)

- **Paper publishing and index:** All papers of **ICEEB 2014** will be published in the **Volume of Journal (IPCBEE, ISSN: 2010-4618)**, and all papers will be included in the Engineering & Technology Digital Library, and indexed by Ei Geobase(Elsevier), CABI, Ulrich's Periodicals Directory, EBSCO, CNKI, WorldCat, Google Scholar, Cross ref and sent to be reviewed by Compendex and ISI Proceedings.
- **Conference website and email:** http://www.iceeb.org/; iceeb@cbees.org.

2014 4th International Conference on Asia Agriculture and Animal (ICAAA 2014)



- **Paper publishing and index:** All papers of **ICAAA 2014** will be published in the **Journal of Advanced Agricultural Technologies (JOAAT ISSN: 2301-3737)**, and be included in Ulrich's Periodicals Directory, Google Scholar, EBSCO, Engineering & Technology Digital Library, Crossref and Electronic Journals Digital Library and sent to be reviewed by EI Compendex and ISI Proceedings.
- **Conference website and email:** http://www.icaaa.org/; icaaa@cbees.org

2014 3rd International Conference on Chemical and Process Engineering (ICCPE 2014)

- **Paper publishing and index:** All papers of **ICCPE 2014** will be published in the **International Journal of Chemical Engineering and Applications (IJCEA, ISSN:2010-0221)**, and all papers will be included in the Engineering & Technology Digital Library, and indexed by EBSCO, WorldCat, Google Scholar,Cross ref, ProQuest and sent to be reviewed by Ei Compendex and ISI Proceedings.
- **Conference website and email:** http://www.iccpe.org/; iccpe@cbees.org.

- **Paper publishing and index:** All the registered papers of **JCBBB 2014** will be published into **International Journal of Bioscience, Biochemistry and Bioinformatics (IJBBB, ISSN: 2010-3638, available at: http://www.ijbbb.org/list-6-1.html)** by IACSIT Publishing, and distributed at the conference. The journal will be indexed by Google Scholar, Crossref, and Engineering & Technology Digital Library.
- **Conference website and email:** http://www.ijbbb.org/jcbbb/2nd/index.htm; jcbbb02@stpress.net.

Excellent Paper Award

- One best paper will be selected from each oral presentation session, and the presenter of this paper will obtain the Excellent Paper Certificate.
- The final result and certificates will be issued at the end of each session on 10 June, 2014

Instructions for Oral Presentations

Devices Provided by the Conference Organizer:

Laptops (with MS-Office & Adobe Reader)
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 3 Minutes of Q&A
Keynote Speech: 30 Minutes of Presentation and 5 Minutes of Q&A

Brief version

June 9, 2014
10:00-18:00
Arrival and Registration

June 10, 2014
9:00-18:30
Registration and Conference

Venue

Opening Remarks	09:00~09:10
Keynote Speech I	09:10~09:45
Keynote Speech II	09:45~10:20
Taking Photo & Coffee Break	10:20~10:50
Keynote Speech III	10:50~11:25
Keynote Speech IV	11:25~12:00

Lunch 12:00~13:00

Session 1 13:00-15:30
ICEEB 2014 for 14 presentations

Session 2 13:00-15:30
ICAAA 2014 for 13 presentations

Coffee Break 15:30~15:50

Session 3 15:50-18:30
ICEEB/JCBBB 2014 for 13 presentations

Session 4 15:50-18:30
ICAAA/ICCPE 2014 for 17 presentations

Dinner 19:00

June 11, 2014
Academic Visit

Detailed Schedule for Conference

June 9, 2014, 1st Floor (Monday)

10: 00–12: 00 **13: 30–18: 00**	**Arrival and Registration**

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 session. The Certificate for Excellent Papers will be awarded at the end of each oral session on June 10, 2014.

June 10, 2014, Benjakitti, 1st Floor (Tuesday)

09:00-09:10 **Opening Remarks**	 **Prof. Byoung Ryong Jeong**
09:10- 09:45 **Keynote Speaker I**	 **Prof. Pedro Joaqu ń Guti érrez-Yurrita** **Instituto Politecnico Nacional, Mexico** Speech Title: "A glance to the horizon of the environmental subjects of world-wide interest"
09:45-10:20 **Keynote Speaker II**	 **Prof. Orawan Siriratpiriya** **Environmental Research Institute of Chulaongkorn University, Thailand** Speech Title: "Management of Biomass Waste for Energy Efficiency, GHGs Reduction and Carbon Sink"
10:20-10:50	**Taking Photo & Coffee Break**
10:50–11:25 **Keynote Speaker III**	 **Prof. Byoung Ryong Jeong** **Department of Horticulture, College of Agriculture & Life Science, Gyeongsang National University,Korea** Speech Title: "The value of horticultural plants in our living"

11:25-12:00 **Keynote Speaker IV**		**Prof. J Lordwin Girish Kumar** **Sam Higginbottom Institute of Agriculture, Technology & Sciences, Allahabad, India** Speech Title: "Innovative Wastewater Treatment Technologies: Present Challenges and Future Horizons"

12:00–13:00	**Lunch**

Afternoon, June 10, 2014 (Tuesday)

SESSION–1 (ICEEB)

Venue: Benjakitti (1st Floor)

Session Chair: Mark J. Willis

Time: 13:00–15:30

ICEEB 2014	
G0029	Solid Waste Management: its Sources, Collection, Transportation and Recycling **Gaurav K. Singh**, Kunal Gupta, Shashank Chaudhary Delhi Technological University *Abstract*—Solid wastes may be defined as useless, unused, unwanted, or discarded material available in solid form. Semisolid food wastes and municipal sludge may also be included in municipal solid waste. The subject of solid wastes came to the national limelight after the passage of the solid waste disposal act of 1965. Today, solid waste is accepted as a major problem of our society. In the United States over 180 million tons of municipal solid waste (MSW) was generated in 1988. At this generation quantity, the average resident of an urban community is responsible for more than 1.8 kg (4.0 lbs.) of solid waste per day. This quantity does not include industrial, mining, agricultural, and animal wastes generated in the country each year. If these quantities are added, the solid waste production rate reaches 45 kg per capita per day (100 lb. /c.d.). To introduce the reader to the solid waste management field, an overview of municipal solid waste problems, sources, collection, resource recovery, and disposal methods are presented in this paper. Greater emphasis has been given to the design and operation of municipal sanitary landfills, regulations governing land disposal, and leachate generation, containment and treatment methods.
R0004	Environmental Impact Assessment of the Development of Primary Aluminium Industry in Indonesia based on MFA and LCA as a Baseline Study to Achieve Sustainable Industry **Asri Suciati** and Naohiro Goto Toyohashi University of Technology *Abstract*—The primary aluminium industry in Indonesia is taken as an object study which its production process system was evaluated by the Material Flow Analysis (MFA) and Life Cycle Assessment (LCA) methods. Bauxite mine, alumina refinery, aluminium smelting and casting, the transportation modes and the power generation for supplying the electricity are the processes within the scope of study. The results show that 5.53 tonnes of washed bauxite ore are needed to produce 1.96 tonnes of alumina (64% material reduced) which require the energy in the form of 6.59x10-1 MWh of electricity and 7.21x10 litre of diesel

	fuel, and from 1.96 tonnes of alumina with the additional 6.21x10-1 tonnes of prebake anode, 1 tonne of aluminium ingot can be produced (the material reduce about 49%) which are processed by supporting of 1.57x10 MWh of electricity and 3.78x10 litre of diesel fuel as the energy source. The significant environmental impacts consist of tailings (1.22x10 m3) to produce 1 tonne of washed bauxite ore, bauxide residue (1.54 tonnes) to produce 1 tonne of alumina, and gaseous emissions (SO2 emission of 1.15x10 kg and Total Flouride of 2.33x10-4 kg) during primary aluminium production. While for CO2 emissions accounted for 1.29x10 tonnes per 1 tonne of aluminium ingot production that is derived from the electricity usage (72.3%), technical process (13.8%), fuel combustion (10.5%), and transportation modes (3.40%). The outlook of CO2 emission in 2025 due to the development of smelter to produce aluminium ingot product reach to 1.31x107 tonnes (80% increasing compared to 2013's data).
R1007	A case Study of energy security in Myanmar and supply options **Swe Swe Than** Joint Graduate School of Energy and Environment (JGSEE), King Mongkut's University of Technology Thonburi (KMUTT) *Abstract*—Myanmar Energy Security is aiming towards the path of sustainable economic development by providing an affordable and reliable energy supply to all consumers, especially to those living in remote areas that are currently without electricity, to reduce poverty and to raise the quality of life of its people. Myanmar is also increasing foreign exchange earnings through energy exports after meeting the national demand and developing a community-based renewable energy development program. In this study, the energy consumption analysis compares a Business as Usual (BAU) scenario with Alternative Policy Scenario (APS) from 1990 to 2035, where 1990 is the base year and 2035 is the end year in terms of final energy demand by sector, final energy demand by fuel, primary energy consumption by resource and electricity generation. The results show the energy demand in the transportation sector is growing faster and the final energy demand in fuel has increased for oil and coal. In power generation, hydropower generation has increased the most, following new and renewable energy and coal-based power plants. The conclusions are divided into two criteria: energy consumption and electricity consumption. The first, to increase energy efficiency and conservation programs in industry and buildings, to revamp refinery and LPG plant maintenance, and to install a gas pipelines system and explore the upstream energy sector. The second, to rehabilitate existing electricity transmission and distribution, expand rural electrification, build coal-fired power plants or gas-fired power plants, and promote renewable energy in Myanmar's fuel mix as a secure energy source.
R0008	A new way to protect natural areas through the human rights. The case of ethnic minorities in Mexico Andrea Ortega-Mar ń and **Pedro Joaquin Gutierrez-Yurrita** NATIONAL POLYTECHNIC INSTITUTE-CIIEMAD *Abstract*—The best-preserved natural areas belonging to ethnic minorities. However, these communities suffer high social marginalization and economic backwardness. So that alleviate poverty, substantially improve the quality of life of these indigenous groups requires the use of their natural resources, threatening the ecological integrity of their territory. This is the great paradox of ecological conservation in this century. On the other hand, authorities and powerful groups recurrently violate the human and social rights of these ethnic communities, such as self-government and dispose of use of their natural resources. In addition, although the constitution protects their rights, there is no way to enforce the law when there are economic interests created around. Thus, access to water, forests and environmental services is limited

	for them without receiving compensation or better municipal services by these limitations, for instance. The international commission of human rights becomes a powerful weapon against social and environmental injustice, allowing indigenous peoples to use their resources wisely and supporting them with better technology for that their economic development be sustainable and improve their quality of life. Under this approach, the ecological conservation of protected natural areas may be more effective than conventional laws and instruments of environmental law.
R2001	Nutrition in-utero Treatment in Pregnant Bali Cows; its effect on Metabolite Status **Muhammad Yusuf,** Djoni Prawira Rahardja, Abdul Latief Toleng, Asmuddin Natsir, Syamsuddin Hasan Department of Animal Production Faculty of Animal Science Hasanuddin University, Makassar 90245, Indonesia *Abstract*—The aim of this study was to know the effect of nutrition in-utero administration on metabolite status in pregnant Bali cows. A total of 90 Bali cows were clinically examined in the present study for pregnancy status. Out of 90 cows, 33 cows were pregnant at various age of pregnancy. The remaining 57 cows did not become pregnant at the time of clinical examination. All cows were treated with nutrition in-utero. Blood urea nitrogen (BUN), creatinine, and glucose concentrations were measured before and during treatment. The results of this study showed that concentrations of BUN, creatinine, and glucose before treatment (mean±SD) were 12.1±4.5 mg/dL, 1.7±0.4 mg/dL, and 56.1±23.4 mg/dL, respectively. After treating the cows, the concentrations of BUN, creatinine, and glucose were relatively similar to the concentrations before treatment; 11.7±5.5 mg/dL, 1.6±0.2 mg/dL, and 50.9±8.4 mg/dL, respectively. Likewise, non-pregnant cows that showed normal ovarian activity, the concentrations of BUN, creatinine, and glucose were also relatively similar both before and after treatment (14.2±7.6 mg/dL vs 11.8±2.7 mg/dL; 1.3±0.1 mg/dL vs 1.6±0.2 mg/dL; and 46.9±9.2 mg/dL vs 56.6±20.5 mg/dL). It is noteworthy that in anestrus cows, the concentration of glucose before treatment was only 28.7±15.0 mg/dL and it was increased to 53.0±7.1 mg/dL after treatment, while concentrations of BUN and creatinine were relatively similar both before and after treatment (12.9±0.8 mg/dL vs 8.4±0.2 mg/dL and 1.0±0.2 mg/dL vs 1.6±0.1 mg/dL). In conclusion, Bali cows with normal concentrations of BUN, creatinine, and glucose during pregnancy tended to maintain their metabolite status. Administration of nutrition in-utero in anestrus cows improved glucose concentration.
R2008	Preliminary study on heavy metals contents of gloves and masks used by allied medical health professionals **Judilynn N. Solidum**, Gilmore G. Solidum University of the Philippines, Manila *Abstract*—Allied medical health professionals as Pharmacists, Nurses, Physical Therapists, Medical Technologists among others use gloves and masks in the workplace primarily to prevent spread of infection. The skin and the respiratory tract are passage ways for absorption of contaminants. The study in general aimed to determine the presence or absence of lead, cadmium and chromium in gloves and masks. The collected samples were acid digested and analyzed using Atomic Absorption Spectrophotometry (AAS). Projected blood levels of the heavy metals in the products were mathematically obtained and compared with standard safe limits. Differences among mean values of the heavy metals in each product brands were statistically determined. All analyzed glove and mask brands contained heavy metals lead, cadmium and chromium. All of the analyzed mask brands showed unsafe projected blood levels for lead, and cadmium but only glove brands 2 and 3 had unsafe projected blood levels for lead.

R2009	Abnormal High Formation Pressure Prediction and Causes Analysis **Yuan Cao**, Jingen Deng, Baohua Yu China University of Petroleum-Beijing *Abstract*—Formation sedimentary environment change will cause high pressure, and the properties of formation will change accordingly. Different causes of high pressure induce different properties. Acoustic logging data and rock density logging data can be used to detect formation properties exactly. For normal pressure formation, the two parameters conform to power law relationship. The high pressure causes of disequilibrium compaction and tectonic compression are also in line with power law relationship. Other causes do not conform to the rule. Compared to field measured data and drilling phenomenon, Bowers method can calculate high pressure exactly. Through analysis, it can be speculated that the causes of high pressure in Liushagang formation are hydrocarbon generation and clay mineral transformation.
R2010	Modified Sol-Gel Method of TiO2 Fabrication for Conversion of Glucose to High-Value Chemicals **Orousa Panatta**, Jiraporn Payormhorm, Siriluk Chiarakorn, Navadol Laosiripojana,and Surawut Chuangchote The Joint Graduate School of Energy and Environment *Abstract*—Glucose was successfully converted to be high-value products (acidic compounds) via photocatalytic oxidation with TiO2. This is a new route for chemical production of high-value chemicals. The development of TiO2 synthesis is interesting to improve the properties of photocatalysts. In this research, TiO2 synthesized by modified sol-gel method with microwave (MW) irradiation resulted in small particles and a mixed-crystalline structure of anatase and rutile phases (28.7:65.2). The small particle sizes of TiO2 (MW) (400 nm) influenced high glucose conversion (i.e. 67.7 % at 120 min) because of higher adsorption site of glucose. The mineralization of organic products was occurred after 15 min since pH value of solution trended to increase with increasing time.
R2011	Conversion of Sugar to Organic Acid using TiO2Photcatalyst Synthesis by Hydrothermal Process **Nuch Puttipat,** Jiraporn Payormhorm, SirilukChiarakorn,Navadol Laosiripojana and SurawutChuangchote The Joint Graduate School of Energy and Environment *Abstract*—Photo-conversion of sugar into acidic compounds was carried out under UV light (λmax = 365 nm) with TiO2 photocatalysts. The photocatalysts were synthesized by hydrothermal method with 4 h of hydrothermal time which showed a small particle size of anatase phase at 22.6 nm after the calcination at 500 oC. The anatase phase of crystal was also observed in XRD pattern of as-synthesized TiO2. Photocatalytic conversion of fructose (C6 sugar) (68.8%) was higher than that of xylose (C5 sugar) (49.8%) at 120 min of illumination time. Moreover, TiO2 with small particle sizes of anatase crystal, which were synthesized with 4-h hydrothermal time were the good photocatalyst for conversion of sugar to acidic compounds. The generation of organic acid products was investigated by reduction of pH value.
R2012	Development of Alkaline/Organosolv Pretreatment of Rice Straw to Enhance High Solid Loading Saccharification **Naphatsaya Denchokpraguy**, Verawat Champreda, and Navadol Laosiripojana The Joint Graduate School of Energy and Environment

	Abstract—Lignocellulose represents a promising starting material for conversion to fuels and chemicals in biorefinery; however, its efficient conversion to sugar requires a prerequisite pretreatment step. In the present research, the pretreatment of rice straw by alkaline/organosolv process was studied aiming to separate high quality lignin and enhance enzymatic digestibility of the cellulose-enriched solid. Effects of alkaline (NaOH) on organosolv pretreatment using acetone, ethyl acetate, and ethanol and varying temperature (80oC, 90oC, 100oC) were studied. Acetone was shown to be the best solvent system in terms of cellulose selectivity and enzymatic digestibility. The highest glucose yield of 267 mg sugar/ g native rice straw was obtained using acetone as a solvent with an operating temperature of 90oC for 30 min and subsequent enzymatic hydrolysis. The work shows potential of alkaline pretreatment in organic solvent system for increasing digestibility of lignocelluloses in biorefinery.
R2013	Activity of GDC and YDC synthesize by co-precipitation method toward water gas shift reaction **Eumporn Buarod,** Navadol Laosiripojana, Sumittra Charojrochkul King Mongkut's University of Technology Thonburi *Abstract*—Doped ceria have been widely used as water gas shift catalyst to increase the number of hydrogen production. Gadolinia-doped ceria (GDC) and yttria-doped ceria (YDC) powders have been studied. The supports have calcined at 260 ℃ and monometallic catalysts have calcined at 650 ℃. The cubic phase of ceria was present in the powder for every condition as investigated by XRD. And the water gas shift activity test found the approximate percentage of CO conversion is 30%.
R0020	Analysis of Barley MicroRNAs under Salinity Stress Using Small RNA-Seq **Thi Hoang Yen Dang**, Atul Kamboj, Mark Ziemann and Mrinal Bhave Swinburne University of Technology *Abstract*—Salinity is a global issue, affecting >6% of total land, threatening plant growth and production. Recent investigations on microRNAs (miRNA) have found these to be involved in many plant processes such as plant development and abiotic and biotic stress response, by regulation of gene expression by silencing of the target mRNA in various ways. Hence analysis of miRNAs and their gene regulation mechanisms may enable development of stress-tolerant plants for food security. However, there are no reports of miRNA studies in barley under abiotic stress conditions. In the present study, miRNA populations were investigated using RNA-Seq of cDNA libraries of small RNAs isolated from salt-stressed and unstressed leaf of barley (Hordeum vulgare cv. Arivat and Calmariout). Two hundred and thirty one miRNA species were identified from the data using Mireap software and blast searches. Among these, 5 known, 11 with orthologs in other species, and 25 novel miRNAs were identified, some which showed significant differential response to salt stress. The results provide new deep sequence data on barley miRNAs in response to salt stress.
R0022	Development of a Prefabricated and User Friendly Stance-control Orthosis **Muhammad Rakib**, Imtiaz Choudhury and N.A. Abu Osman University of Malaya *Abstract*—Patients with weak quadriceps have limited option to walk independently. Knee–ankle–foot orthosis (KAFO) are typically prescribed as walking assistive device. KAFOs keep the knee in full extension to provide knee stability during walking and keep knee straight throughout the gait cycle. Locked knee in the swing phase leads to an abnormal gait pattern. Stance control orthosis (SCO) is designed to release the lock during swing phase to allow free knee motion and lock it again during stance

	phase. It helps the user to walk more natural way by overcoming the limitations of KAFO. Usually SCOs are custom made for each patient. We have design and fabricated a prototype of prefabricated SCO. This prefabricated SCO is an off-the-shelf, compact and lighter design. It contains the adjustable features at shank and thigh side bars and cuffs. Therefore, it is adaptable for the patients of different height and size. This device is 50% lighter than commercially available prefabricated SCO. Lighter components and off-the-shelf design will increase the user acceptance. This new SCO offers three modes of operation; locked mode in entire gait cycle, stance-control mode and free knee motion mode. The bio-mechanical performance test revealed this device is structurally strong and user friendly.
R0023	Development of patient specific ankle foot orthosis through 3D reconstruction **Morshed Alam**, I. A. Choudhury and M. Azuddin University of Malaya *Abstract*—Designing and manufacturing methods of assistive devices involve manual techniques such as casting molding of the limbs to be treated. Such methods require skillful labor and often based on trial and error rather than systematic engineering and evidence based principles. 3D scanning allows computer aided design tools to be incorporated, however, this approach also relies on the external model. It is difficult to infer axes of rotation of joints from external models. In this article we have demonstrated an approach of designing ankle foot orthosis (AFO) with commercially available ankle joint that facilitate simultaneous viewing of external and skeletal geometry of the limbs. The output model of AFO is compatible with computer aided manufacturing.

Afternoon, June 10, 2014 (Tuesday)

SESSION–2 (ICAAA)

Venue: Benjakitti (1st Floor)

Session Chair: Prof. Byoung Ryong Jeong

Time: 13:00–15:30

ICAAA 2014	
B0006	Some Characteristics of Milk Yield in Awassi Ewes Maintained at Village Conditions Gönül Gürsu and **Turgut Aygün** Yüzüncü Yıl University, Agricultural Faculty, Department of Animal Science, 65080, Van, Turkey *Abstract*—In this study, it is aimed to be determined the some milk traits in Awassi ewes maintained at village conditions. Totally, 63 Awassi ewes with ages of 2-3 years were used as animal material. Milking in Awassi ewes started at thirty days after parturition. Controls of the milking were made at 14 days intervals. Lactation period and lactation milk production for each ewe were determined from data of controls based on test-day records and Sweden method. The means of lactation period and lactation milk yield for Awassi ewes were 165.46 days and 110.05 l, respectively. Lactation period and lactation milk yield were not statistically affected by age and born lamb's gender. The levels in middle of lactation period of Awassi ewes were defined as following: milk fat, dry matter, density, point of freezing, and protein were 9.40%, 11.61%, 1.0364 g/cm3, -0.59 ℃ and 6.09%, respectively.

	As a result, the findings suggest that the lactation period and the lactation milk yield of Awassi ewes were sufficient level for rural conditions.
B0012	Combination Effect of Clove and Orange Peel Oils on in Vitro Digestion of Dairy Total Mixed Ration Using ANKOM DAISY^{II} Incubator **Muhamad N. Rofiq** and Murat Gorgulu The Agency for The Assessment and Application of Technology (BPPT), Indonesia *Abstract*—Clove and orange peel oils were used for rumen manipulation in ruminant animal production. However there is limited study with true in vitro rumen digestibility. The objective of this study was to evaluate combination effect of clove and orange peel oils on in vitro digestion of Dairy Total Mixed Ration (TMR) using ANKOM DAISY^{II} Incubator. Ruminal fluid for *in vitro* digestion technique was prepared as *in vitro* digestibility ANKOM method. The results indicated that in vitro true DM disappearance (IVTDMD) and in vitro neutral detergent fiber disappearance (IVNDFD) of dairy TMR were significant ($P < 0.01$) affected by clove, orange peel oils and their combination. Clove increased IVTDMD and IVNDFD and energy estimate (TDN, ME and NEl) of TMR, while orange peel oils decreased. Therefore, there was antagonistic effects between CO and OP 300 ppm when they were used together in combination treatment for decreasing in vitro digestion of dairy TMR.
B0014	Utilization of Oil Palm Fruits Mesocarp Fibres Waste as Growing Media for Banana Tissue Culture Seedling in Malaysia **Kek Hoe, Then** Felda Agricultural Services Sdn. Bhd., Malaysia *Abstract*—Malaysia is one of the largest producer of palm oil and the waste discharged from the mill such as oil palm fruits mesocarp fibres have great potential to be recycled as a valuable agriculture input. These mesocarp fibres were utilized as a growing media for banana tissue culture seedlings to replace the soil in the conventional practices. The mature mesocarp fibres were mixed with compost and chicken manure as growing media for banana tissue culture plantlet. Fibres based media showed to provide vigorous plant growth and sufficient nutrient supplies of phosphorous and magnesium to banana seedling, but required additional nitrogen and potassium through the amendments with compost or chicken manure into the fibre mixture. Fibre based media was proven effective to replace soil media for banana seedling inclusive of other advantages such as free of soil borne pathogens, higher workability and transportation with lighter material as media.
B0016	Melatonin Profile during Rice (*Oryza sativa*) Production **Widiastuti Setyaningsih**, Nikmatul Hidayah, Irfan Estiono Saputro, Miguel Palma Lovillo, and Carmelo García Barroso University of Cádiz, Spain *Abstract*—Rice (*Oryza sativa*) is the foremost cereal crop in Southeast Asia. It serves as staple food, thus has a major contribution to the calorie intake. In addition, rice contains melatonin which is beneficial for human health. It is, therefore, essential to retain this compound by appropriate rice production processes. Melatonin profile during rice production was monitored for three varieties (*IR64, umbul-umbul* and *pandan wangi*) from conventional farming and four varieties (*batang lembang, pandan wangi, black and red rice*) from organic farming. The effect of polishing degree on melatonin content in rice was also evaluated. Melatonin level decreased throughout rice production and then remained steady at roughly 25-40% in

	final product. The most influential factor was polishing which led to melatonin losses of up to 50%. The results for organically cultivated varieties were similar. However, melatonin in black rice appeared to be persistent in the matrix during rice production.
B0018	Water Electric Light Trap with Water Battery Energy Source as An Technology Innovation Agricultural Brown Planthopper Control **Deary Putriani**, **Fara Nisa** and **Miftahudin Nur Ihsan** The State University of Yogyakarta, Indonesia *Abstract*—The purpose of this experiment was to determine how to make *Water Electric Light Trap* with *Water Battery* which is water as a filled of battery it self. Determine the effectiveness of *Water Electric Light Trap* with *Water Battery* to control brown planthoppers towards self-sufficiency in rice, and the benefits of *Water Electric Light Trap* with *Water Battery* as an environmentally friendly technology. The method used is the subject of experimental research study *Water Electric Light Trap* with *Water Battery* energy research object brown planthopper. The experiment begin with the setting some tools consists of the a set of the *Water Battery* and *Water Electric Light Trap* then tested in the Village area of rice fields Rejomulyo-Madiun, East Java. The results showed the *Water Electric Light Trap* with white light lamp is most effective in water trap with electric light energy source, chargers skillet is best to water and oil as it can trap the brown planthopper most weighing 25.7 grams for 1 hour.
B1003	Effect of Arsenic and Nitrogen Application on Grain Yield and Some Physiological Parameters of Safflower (*Carthamus tinctorius L.)* **Mostafa Heidari** and Sepideh Mohamadi Agronomy and plant breeding Dept, University of Shahrood, Shahrood, Iran *Abstract*—Arsenic causes physiological disorders in plants. In order to study effects of arsenic and nitrogen on safflower parameters, a plot experiment as completely randomized factorial design with three replicates was conducted in a greenhouse at university of Zabol, Iran. The nitrogen treatment was; N_1=75, N_2=150 and N_3=225 kg N ha^{-1}, and arsenic levels was A_1=0, A_2=30, A_3=60 and A_4=90 mg/kg.soil. Results showed grain yield was significantly affected by interaction nitrogen×arsenic and the highest grain yield was obtained at the N_2A_3 treatment. Data showed that application of nitrogen and arsenic had significantly effects on yield components (biological yield and number of seed per plant). By increasing arsenic concentration from A_1 to A_4, yield components decreased but by application of nitrogen, especial until N_2 level, these components increased. Arsenic and nitrogen application, significantly affected on carbohydrate and chlorophyll content in leaves. Under arsenic treatment, chlorophyll and carbohydrate content increased.
B1007	Effects of Replacing Corn with Whole-Grain Paddy Rice in Laying Hen Diets on Egg Production Performance **Janjira A. Sittiya**, Koh-en B. Yamauchi, Kenji C. Takata Kagawa University, Kagawa, Japan *Abstract*—Two experiments were conducted to investigate the effect of replacing corn with whole-grain paddy rice (WPR) in laying hen diets on egg production performance and quality. Commercial layers (Sonia) were used in both Experiment 1 and 2. In Experiment 1, 80 layers were placed into 4 groups of 20 birds each: the corn in the basal diet was replaced with 0, 10, 30 and 50%WPR. Each group of 20 birds had 10 replicates of 2 birds. In Experiment 2, 45 layers were placed into 3 groups of 15 birds each: the

	corn in the basal diet was replaced with 0, 70 and 100%WPR. Egg production was recorded daily and feed consumption was measured weekly throughout the experiments. Eggs from each group were collected biweekly to measure egg quality. Egg production performance and quality were not different among the groups ($P>0.05$), except for a decreased ($P<0.05$) shell ratio in the 100%WPR group. Moreover, yolk color score decreased ($P<0.05$) with increasing levels of WPR (50%WPR or more). The present results reveal that WPR can replace up to 100% of corn in laying hen diets without harming egg production performance and quality.
B2002	Comparison of Nitrate Content in 'Smooth Cayenne' Pineapple Flesh Related to Its Different Cut Sections, Maturity and Crop Season **Sasathorn Srivichien** and Sontisuk Teerachaichayut King Mongkut's Institute of Technology Ladkrabang, Thailand *Abstract*—High nitrate (NO_3) level in pineapple flesh affected to cans. It is one of main problems in pineapple canning factory. Pineapple with high NO_3 content is required to screen out before feeding to a process of the factory. Knowledge of NO_3 content in pineapple is important for quality control due to checking of NO_3 content in pineapple is random. There is still no scientific evidence to support what a suitable procedure for nitrate inspection should be handled. Therefore this is research was aimed to study the level of nitrate in difference part of pineapple fruit (top, middle and bottom) related to maturity stage and crop seasons. A batch of 82 pineapple fruits (harvested in summer and rainy season) was used in this research. Each sample was divided into 3 parts (top, middle and bottom). The amount of nitrate in each part of pineapple flesh was determined by HPLC. By statistical analysis, the level of nitrate at different cut sections of pineapple flesh was no significant difference. The nitrate level of pineapple flesh with lower brix and acid ratio ($B/A<23$) was significantly different to those of flesh with higher brix and acid ratio ($B/A>23$). The nitrate level of pineapples flesh harvested in summer season was significantly different to those of flesh harvested in rainy season. Therefore, NO_3 content in pineapple wasn't related to cut section but it was related to maturity and crop season.
B2003	Statistical Analysis of Index Values Extracted from Outdoor Agricultural Workers Motion Data **Shinji Kawakura** and Ryosuke Shibasaki University of Tokyo, Japan *Abstract*—We have been developing various kinds of promising applied sensing systems to resolve difficulty in achieving agricultural advancement, technical tradition (teaching), and safety issues. Existing methods and systems are not enough to analyze human motion minutely, simply, and at low-cost. For the purpose, we have also been developing Wearable Sensing Systems (WSs), including advanced devices, to secure real-time data related to worker motion by analyzing human dynamics and statistics in rice fields, meadows, and gardens. We have obtained and observed those time-line data, computed by some statistical methods, discussed about them, and make some suggestions concerning them. Our plans would make it possible for us to improve worker agricultural skills and to enhance their safety level.
B2004	Effectiveness of Urea-Coated Fertilizer on Young Immature Oil Palm Growth **M. N. A. Rasid** and T. C. Chek and A. F. Redzuan FELDA Agricultural Services Sdn. Bhd, Malaysia *Abstract*—Urea-coated fertilizers were invented to reduce ammonia volatilization and act as slow-release fertilizers in the oil palm field. This study was designed to examine the effectiveness of three types of

	urea-coated fertilizers namely Urease Inhibitor-coated urea 25% N (UICU), resin-coated urea 43% N (RCU), Sulphur-coated urea 32% N (SCU), uncoated urea 46% N (UU) and uncoated AS, (SOA) 21%N on oil palm early growth. The trial commenced from planting of the new oil palms until 36 months after planting (MAP). The fertilizer rates were applied with equivalent nutrient content of conventional compound fertilizer, NPKMg (9/9/12/4+0.5%B-AS based) as Control (Co) treatment. From the analysis, RCU showed significantly bigger girth size over UU and UAS by 13%, respectively starting at 18 MAP and 24 MAP while SCU recorded significant performance over UU by 8% at 36 MAP. The result also showed that SCU produced significantly longer fronds over Co, UU and UAS by 9%, 13% and 10%, respectively at 30 MAP. The similar performance was shown by SCU which produced bigger petiole cross section (PCS) and higher leaf dry weight over UU and Co at 30 to 36 MAP respectively. Foliar analysis found that higher leaf-N was recorded at the SCU plot and exceeded the UU by 18% and over the critical level by 7% at 24 MAP. From the results, it indicated that SCU had consistent performance over UU on girth size, frond length, PCS, leaf dry matter and leaf-N content. Even though there was no significant difference between the other types of urea coated fertilizers, SCU was able to produce more vigorous vegetative growth. Therefore, SCU fertilizer can be used as an alternative source of urea to improve immature oil palm growth especially in dry regions where high volatilization rate occurs.
B3002	Foraging Polyethism in *Odontotermes formosanus* Shiraki **Ehsan Soleymaninejadian**, Bao Zhong Ji, ShuWen Liu, Jin Jin Yang, and Xin Wei Zhang College of Forest Resources and Environment, Institute of Forest Protection Nanjing Forestry University, China *Abstract*—South of China is always invaded by *Odontotermes formosanus* Shiraki. This species is one of the main causes of damage to the forests, crops, buildings, boats and even water preserving constructions like dams. In this paper Polyethism of foragers in *O.formosanus* Shiraki have been investigated. Foragers of Thirty nests in Nanjing Forestry University have been studied and 4782 workers and soldiers captured. First of all we studied all the foragers together. We realize that workers with head width of medium (MW) are the main foragers. They contain 41% of all the foragers. According to frequency of head width and resulted peaks, foragers have been divided into Very small workers (VSW), Small Workers (SW), Medium Workers (MW), Large Workers (LW), and Very Large Workers (VLW). Studying each nest separately showed that all the above groups are not available in foraging behavior of one nest; however at least two of the groups can be seen among foragers. Foraging soldiers of thirty nests also have been studied. We found three groups of soldiers, Small Soldiers (SS), Medium Soldiers (MS), and Large Soldiers (LS). In this case, MS with 59% are the main groups of soldiers. In addition, foraging polyethism in different tree species has been investigated *Cinnamonum camphora* was the main target for this species along with *Sophora japonica Liriodendron chinensis, Cunninghamia lanceolata, Robinia pseudoacaia, Magnolia denudata, Metaseuoia glyptostroboide, Prunus mume, Catalpa speciosa*, *Ulmus pumila*, and *Castanea sativa*. At the end it became obvious that however some of other groups taking part in foraging in different nests, but workers and soldiers with medium head width have a key role in foraging behavior by this kind of termite.
B3004	Optimizing Rumen Bioprocess Through Supplementation Of Microbe Precursor Nutrient In Ammoniation Of Palm Oil Frond- Base Cattle Ration **Nurhaita**, Ruswendi, Wismalinda R, Robiyanto Agricultural Faculty of Muhammadiyah University, Bengkulu, Indonesia *Abstract*—This research aimed at evaluating the effect of supplementation of cassava leaf meal and S and

	P mineral in ammoniated palm oil frond towards the bioprocess optimization in cattle rumen. Randomized block design was used applying 5 ration treatments and 4 cattle groups. Treatment ration were A: field grass, as control group; B: ammoniated palm oil frond; C: B + 5% cassava leaf; D: B + 0.4% mineral S and 0.27% mineral P; and E: B + cassava leaf + S and P mineral. The measured parameters covered: 1) bacteria population, 2) digestibility of dry matter and organic matter. Result showed that cassava leaves and mineral supplementation, could increase bioprocess optimization in the rumen as observed from the increase of rumen bacteria population, digestibility of dry and organic matter. The highest bacteria population was found in ration of ammoniated palm oil frond by supplementing cassava leaves and S, P mineral.
B3005	The Result of Biotechnology by Local Microorganisms to Banana Peel on Rumen Fluid Characteristics as Ruminant Feed **Tri Astuti**, Yurni. S. Amir, Gusni Yelni, and Isyaturriyadhah Faculty of agriculture, Muara Bungo University, Jambi, Indonesia *Abstract*—The purpose of this research was to improve the nutritive value waste of banana peel as ruminant feed through biotecnology process to using of variaty sources of local microorganisms (MOL) as inoculum fermentation with different incubation lenght. Mol is a liquid containing microorganisms such as fungi, bacteria, base on waste. This research done to evaluate rumen characteristics banana peel that have fermented with Mol as ruminant feed in- vitro methode. The factorial randomized block design used in this research, 3 x 2 with 3 replications for each treatment. Factor A was the source of MOL (rument contents, banana peels, vegetable waste). Factor B was incubation lenght on a banana peel 7 days and 14 days. Parameters measured were pH, Ammonia (NH3) dan VFA. The best results of the research contained in the banana peel that has been fermented with Mol source of rumen contents and incubation for 7 days

15:30-15:50	**Coffee Break**
Outside of the conference rooms	

Afternoon, June 10, 2014 (Tuesday)

SESSION–3 (ICEEB&JCBBB)

Venue: Benjakitti (1st Floor)

Session Chair: Prof. Orawan Siriratpiriya

Time: 15:50–18:30

ICEEB 2014	
R3006	Investigating the prospects of using novel thermal power pump cycle coupled with reverse osmosis system for water desalination **Abhijit Date**, S.V. Ghaisas, Ashwin Date and Aliakbar Akbarzadeh RMIT University

	Abstract—This paper presents theoretical and experimental study of new thermal power pump cycle for water desalination. The operation, thermodynamic cycle and design of the proposed pump-cycle-operated reverse osmosis system are explained with the aid of system schematics and thermodynamic process diagrams. Theoretical performance of the thermal power pump cycle alone and in combination with a reverse osmosis system is presented. The advantages of the proposed thermal power pump cycle in relation to conventional power cycles are discussed. The proposed system is predicted to consume between 29MJ and 250MJ of thermal energy at approximately 80°C in order to produce 1m ^{3} of fresh water from 2m ^{3} of feed water with salt concentration between 5,000g/m ^{3} and 45,000g/m ^{3}.
R3009	Essential Oil Compositions from Leaves of Eucalyptus camaldulensis Dehnh. **Elnaiem Elaagib Mubarak**, Sadegh Mohajer and Rosna Mat Taha Institute of Biological Sciences, Faculty of Science, University of Malaya *Abstract*—Leaves of *Eucalyptus camaldulensis* and *Callistemon viminalis* on hydrodistilation, gave 1.40 % and 0.80% w/w an oil dried weight basis, respectively. GC-MS analysis of the oils resulted in the identification of 18 and 7 constituents, repectively, representing 99.31% and 98.07%, respectively, of the oil. γ-Terpinene (71.36%) and o-cymene (17.63%) were the major components of *E. camaldulensis*. While 1,8-cineole (61.51%) and α-pinene (21.53%) were the major components of *C. viminalis*. From the results; *E. camaldulensis* and *C. viminalis* leaf oils from Malaysia have great potential and can be utilized as cheap sources for the commercial isolation of γ-terpinene and 1,8-cineole.
R3010	Microwave Synthesis of Monodisperse TiO2 Quantum Dots and Enhanced Visible-Light Photocatalytic Properties Songling Wang and **Michael H.K. Leung** City University of Hong Kong *Abstract*—Semiconductor TiO2 quantum dots sized 2-3 nm have been first synthesized by a simple and facile microwave method. The low/high-magnification TEM images illustrate these TiO2 quantum dots are monodisperse. The TiO2 quantum dots were deposited in acetone quickly and then dissolved in water well, exhibiting reversible process between in water and acetone. We further investigated the enhanced photocatalytic properties in degradation of organic dye under visible light.
R3011	Using plant growth promoting rhizobacteria (PGPR) containing uptake hydrogenase promote soybean growth **Narongrit Sakunpon,** Nantakorn Boonkerd, Neung Teaumroong, Shin Okazaki, Panlada Tittabutr Suranaree University of Technology *Abstract*—Soybean nodulating bradyrhizobia were isolated from soybean nodules, and rhizobacteria were also isolated from soybean rhizospheric soil in Thailand. Among all isolates, 19 strains of bradyrhizobia and 10 strains of rhizobacteria had ability to uptake hydrogen (Hup^+). Since non-hydrogen uptake (Hup^-) bradyrhizobia were found as indigenous strain in the field and had low ability of nitrogen fixation, it could reduce soybean production. However, H_2 produced during biological nitrogen fixation as a by-product and released into soil may affect some biological function of rhizospheric ecosystem. Although the H_2 gas did not have any influence on nitrogen fixation and plants biomass, H_2 may affect other rhizospheric bacteria. Interstingly, most of Hup^+ PGPR isolates had ability to fix nitrogen, produce IAA, and 6 strains also had ACC deaminase activity. Among them, PGPR isolate 2H17 and H39 could enhance soybean growth when grew in the vermiculite treated with H_2. These results indicated the possibility of using Hup^+ PGPR

	co-inoculation with soybean inoculant to turn disadvantage of Hup^- nodule in which H_2 gas was released from nitrogen fixation process to benefit Hup^+ PGPR and lead to promote plant growth.
R0011	Introducing a new logical model based on the holistic approach to risk assessment for environmental disaster Brenda Bravo and **Pedro Joaquin Gutierrez-Yurrita** NATIONAL POLYTECHNIC INSTITUTE-CIIEMAD *Abstract*—A natural hazard (anthropogenic or combined) can produce different effects in natural or artificial landscapes, ranging from barely perceptible damage to catastrophic damage. To reduce its consequences is necessary to reduce the risk by reducing the vulnerability of the exposed elements. To do this we must identify the threat conditions, recognizing the vulnerability factors and determining the ability of the society to prevent or respond to disasters. The diagnostic aspects of an environmental system including threats are fairly well developed, even the same diagnosis can estimate the probability of a catastrophic event occurs, but what cannot be done with the diagnosed and poorly developed, is the holistic disaster risk management. Some management systems base their operation on warning systems and early action; but after the disaster happened. The prevention of environmental disasters can be performed partially. While it is true that may not be predicted long in advance when a particular catastrophic event occur, they can be logical prediction models, so that disaster risk is managed before, during and after natural event occurred. In this paper the integrated approach to disaster risk management, the holistic assessment and aspects that are necessary to achieve compliance with proper disaster risk management is described.
JCBBB 2014	
CB052	Variability in the Last Abdominal Sternum of *Brontispa longissima* Populations Using Outline-Based Geometric Morphometric Analysis **Abigail R. Cuyacot**, Emma M. Sabado, and Cesar G. Demayo Mindanao State University-Iligan Institute of Technology, Philippines *Abstract*—The coconut plant plays a major role in the economy of many Asian countries including the Philippines and their economies are recently threatened due to a serious outbreak of the coconut leaf beetle, *Brontispa longissima* (Gestro). This study was conducted to observe if there is an intraspecific morphological variation among the coconut hispine beetle populations in terms of the last abdominal sternum shape to better understand why these pests differed in the level of their infestation in different populations. From outline-based geometric morphometrics analysis, results showed a considerable sternum shape variation among the populations studied. Morphological sternum shape variations were verified statistically in Principal Component Analysis, Canonical Variate Analysis, and Multivariate Analysis of Variance (MANOVA) using PAST 2.13 software. Further, shape differences could be observed in the shape representation of Elliptic Fourier Shape analysis as well as in the PCA diagrams and CVA scatter plots.
CB053	Sexual Dimorphism on Shell Shape of *Pomacea canaliculata* Lamarck Thriving in Lakes Using the Geometric Morphometric Approach **Jhun Joules M. Mahilum** and Cesar G. Demayo Mindanao State University-Iligan Institute of Technology, Philippines *Abstract*—Several studies have shown different interpretations about shell shape variation and sexual dimorphism on Pomacea canaliculata Lamarck. This study, however, was conducted to evaluate and

	determine the existence of sexual dimorphism and shape variation in the shells of golden apple snails using landmark-based analysis in its dorsal and ventral/apertural portion using geometric morphometric approach. Results have shown significant variations validated by relative warp analysis and Canonical Variation Analysis. Moreover, Discriminant Function Analysis and Cluster Analysis also showed significant shell shape variation between sexes proving the occurrence of sexual dimorphism within species of golden apple snails obtained from lakes.
CB054	The Fortification Tempeh of Rice bran Chitosan as Functional Food Antihypercholesterolemia in Indonesia **Agnes Sri Harti**, Anis Nurhidayati, Desy Handayani, Estuningsih, Heni Nur Kusumawati, Dwi Susi Haryati Kusuma Husada Institute Health of Science Surakarta, Indonesia *Abstract*—Tempeh is a traditional Indonesian fermented foods that use raw materials of yellow soy beans by *Rhyzopus oryzae*. The concept of food fortification can be used to characterize food biosuplemen health improvement as a functional food. Tempeh of rice bran chitosan is one form of food fortification using soy beans and rice bran as raw material. The use of soybean seeds with a mixture of rice bran provides an alternative dependence soybean imports in Indonesia. The result showed that the mixture composition of soybean: rice bran = 2 : 1 and chitosan 2 % w / w can be used as functional food to provide anti- hypercholesterolemic effect.
CB055	Assessing Geographic Conchological Variations of the Different Banding Patterns in the Invasive Giant African Land Snail *Achatina fulica* from the Philippines **Jade Marie M. Sobrepeña** and Cesar G. Demayo Mindanao State University – Iligan Institute of Technology, Philippines *Abstract*—Population of the invasive giant African snail Achatina fulica in the Philippines show conspicuous shell variations, which involve banding pattern, colour, size, and shape. Generally, shell shape and colour of land snails have been related to environmental factors. Therefore, the objective of this study is to determine and assess shape variations across population of geographically isolated shells with different banding patterns. Morphological analysis was performed on a total of 1309 matured shells from 15 different geographical locations across the Philippine island. Relative warp analysis revealed variation shell shape which could be slender-shaped or round-shaped. A variation in spire-whorl length coupled with aperture size was also observed. Canonical variance analysis scatter plot presented overlapping of populations from different geographical locations. Though there were no directly observable differences on the consensus shape superimposition of each geographically isolated population, results of multivariate analysis, Kruskal-Wallis test, and cluster analysis showed significant relationship of shell morphology of different banding patterns to geographical locations. However, the scattered distribution and short distance variation suggested a higher intrapopulation variation rather than interpopulation. Phenotypic plasticity, common in land snails, could be another explication for the observed intrapopulation conchological variations and that differentiation could also be due to multitude reactions to endogenous and exogenous factors.
CB056	Describing Sexual Dimorphism in Inner Wings of *Brontispa longissima* Using Landmark Based Geometric Morphometric Analysis **Bryan George D. Belleza** and Cesar G. Demayo MSU-Iligan Institute of Technology, Philippines

	Abstract—Sexual dimorphism is a widespread phenomenon among groups of animals that describes variation in morphology between individuals of different sexes. Differences in wing shape morphology between sexes of the same species of insects often reflects disparity in flight performance and flight range which might be of considerable significance in the monitoring and control of pest species. This study was conducted to determine the differences in wing morphology between sexes of coconut hispid beetle (*Brontispa longissima*) by looking at the variations in the shapes of the entire wing using geometric morphometrics. The results obtained showed noticeable variation in the left and right inner wings between female and male samples as shown in the relative warp analysis. Discriminant function analysis, MANOVA/CVA scores, and Kruskal-Wallis test showed statistically significant variation between sexes establishing the presence of sexual dimorphism within the species of coconut hispid beetles.
CB057	Relative Warp Analysis of the Pronotum Shape Variability among Twelve Selected Populations of the Coconut Leaf Beetle, *Brontispa longissima* Found in the Mindanao Island **Kris A. Ortizo** and Cesar G. Demayo MSU-Iligan Institute of Technology, Philippines *Abstract*—The aim of the study was to determine the pronotum shape variability of the coconut leaf beetle, Brontispa longissima and to identify the shape discontinuity using relative warps analysis. Samples were taken from twelve sampling site under eight provinces in Mindanao. Using the results from the relative warps analysis, histograms, CVA and box plot were generated to visualize variation distribution. Cluster analysis was used to determine the degree of variation between pronotum shape between and within populations, with the Kruskal-Wallis test used to determine the significance of difference. Results of the relative warps (RW) analysis showed six general and significant descriptions of pronotum shape. CVA scatter plots showed intrapopulation variation in pronotum shape but Kruskal-Wallis test showed significant differences in several populations. Cluster analysis resulted in the formation of two subclusters in each grouping. It was concluded that there is a significant relationship in the pronotum shape of B. longissima with regard to its shape variation.
CB058	Describing variability in Wing Shapesamongthree Populations of *Plesispa reichei* Using Landmark-Based Geometric Morphometric Analysis **Mark Ronald S. Manseguiao**, Jessie G. Gorospe, Sharon Rose M. Tabugo, Muhmin Michael E. Manting, Mark Anthony J. Torres and Cesar G. Demayo Mindanao State University – Iligan Institute of Technology, Philippines *Abstract*—This study was conducted to describe variability in 3 populations of a coconut pest, *Plesispa reichei* landmark-based geometric morphometric analysis of inner wing shapes. A total of 21 landmarks were used to represent dimensions in the left and right wings. Analysis of Variance, coordinate mapping, relative warp, Euclidean Distance Matrix and Cluster Analyses were used to analyze these landmarks. Results showed that significant variations were observed among populations. Variation in the left wing is mainly seen along the proximal landmark pointsbut is variable in the right wing which may be an indication of asymmetry.Cluster analysis showed wing shape variationsbetween populations indicating population differentiation in the pest. Distance was not a factor which may indicate differences in genetic structure between populations.
CB063	Asymmetry Analysis of Brontispa longissima Gestro, 1885 (Coleoptera: Chrysomelidae) Metasternum Using Symmetry and Asymmetry on Geometric Data (SAGE) **Debbie Gail P. Genotiva**, Sharon Rose M. Tabugo, Muhmin Michael E. Manting, Jessie G. Gorospe, Emma M. Sabado and Cesar G. Demayo

	Mindanao State University-Iligan Institute of Technology, Philippines *Abstract*—Variations in the patterns of asymmetry in coconut leaf beetle Brontispa longissima metasternum from ten (10) populations in Northern Mindanao, Philippines were evaluated using the landmark-based advanced geometric morphometrics Symmetry and Asymmetry in Geometric Data (SAGE) version 1.04 tool. Coconut leaf beetle has been infesting the country. However, primary information to the pest's ability to develop traits efficiently is still to be investigated. B. longissima metasternum was digitized and analyzed using Procrustes Analysis of Variance (ANOVA). Results have shown absence of fluctuating asymmetry between sexes and locations. Conversely, directional asymmetry and individual shape variation is evident for male and female samples in all sites.

Afternoon, June 10, 2014 (Tuesday)

SESSION–4 (ICCPE)

Venue: Benjakitti (1st Floor)

Session Chair: Prof. Pedro Joaqu ń Guti érrez-Yurrita

Time: 15:50–18:30

B3010	Average Daily Gain, AST and Blood Nitrogen Urea (BUN) Responses of Bali Beef on Cocoa Waste Extract Supplement **Hikmah M. Ali**, Gemini Alam, Jasmal A Syamsu, Salengke, and Mawardi A Asja Hasanuddin University *Abstract*—the research aimed to identify blood plasma AST, BUN, Triglyceride and average daily gain (ADG) responses of Bali beef on cocoa pod husk (CPH) extracts supplementations. 15 males of Bali beef in fattening premises were divided according to feed treatments; group A1 with normal feed; A2 CPH meal (CPH-M); A3= CPH crud (CPH-CE); A4= high theobromine CPH (CPH-T); A5= high polyphenol CPH (CPH-P). Blood collection and body weighting held one day before treatment (B1); B2= 24 h; B3= 14 d; B4= 28 d; 42 d later. Result show that there was no significant difference in ADG values within all treatments, although the control and CPH-P had higher ADG at 14–56d of treatment. The blood AST activity were same ($P>0.05$) in control, CPH-M and CPH-C and significantly higher ($P<0.05$) than CPH-T and CPH-P Thus preliminary parameters implied that utilizing of CPH as feed for Bali beef didn't indicate any negative effect.
B3012	Characteristics of Feed Mills at Farmers Group Scale in Supporting the Development of Beef Cattle **Jasmal A. Syamsu**, Muhammad Yusuf and Agustina Abdullah Hasanuddin University, Indonesia *Abstract*—One of the strategies to increase the availability of beef cattle feed in small holder livestock farms is to build feed industry of raw material agricultural waste-based. Development of small scale feed mills at the farmers group level is a necessity in supporting their farm. The important thing to consider in feed production not only on the quality aspect, but also the economical aspects need to be considered, which can

	be affordable by the farmers. The farmer group of Padang Tawang is one of a farmers group that having small-scale feed mill that processing the raw material feed into the feed concentrates and complete feed. Based on identification of the availability of feed raw materials in the region of farmer groups generally available raw material feed is a source of fiber with a crude protein content below 20 % (14 of feed ingredients), and it was only two feed ingredients that are categorized as a protein source with crude protein content above 20 % was coconut meal and shrimp head.
B1001	Evaluation of some existing empirical and semi-empirical net radiation models for estimation of daily ET0 **A.A. Sabziparvar** and R. Mirgaloybayat BU-ALI SINA UNIVERSITY *Abstarct*—Net radiation (R_n) is one of the effective parameters in predicting reference evapotranspiration (ET_0) rate. In this research, the accuracy of some empirical and semi-empirical R_n models is compared against FAO 56 recommended net radiation model (hereafter referred as FAO 56) in different climates of Iran. Daily reference evapotranspiration was calculated by Penman-Monteith-FAO 56 standard model during a 28-year period (1980-2007). For estimating daily net radiation, various net radiation models (FAO 56, Wright, Basic Regression, Linacre, Berlind, Irmak and Monteith) were applied. The model evaluations were implemented for four climate types. For warm-arid and cold-arid climates, Basic Regression Model (BRM) performed the best estimates in comparison with the FAO 56. In cold semi-arid and warm semi-arid regions, Wright model presented the nearest results to the reference model (FAO 56), but for warm humid, using Irmak net radiation model was the best choice. In regional averages (all climates), linear BRM net radiation model performed the superior performance in estimating the daily ET_0. Results showed that for 75 percent of the study sites, the linear R_n models can be reliable candidates instead of non-linear R_n models such as net radiation as used in FAO 56 model. For some sites with low altitude and high relative humidity (e.g. coastal sites) Irmak model showed the minimum deviations from the reference FAO 56 model. These results can be useful for the sites where all weather parameters are not available.
B1005	Using competitive pasture species to manage Parthenium in northern Pakistan **N. Khan** and Rahamdad Khan Department of Weed Science, The University of Agriculture, Peshawar, Pakistan *Abstarct*—Parthenium is an alien invasive plant reducing native biodiversity, inflicting major production losses to the agriculture and livestock sectors. So far no method alone has shown adequate management for parthenium. Among five pasture species sown in two parthenium infested regions in northern Pakistan in 2009, four species (Rhodesia sorghum, buffel grass and Rhodes grass) were all shown to significantly reduce the growth of parthenium as well as produced high fodder amounts in northern Pakistan in 2009. To further confirm consistency of these species performance against the parthenium, data were recorded for the shoot dry biomass of all the five pasture species and parthenium in the second year in 2010. Rhodesia s*orghum*, buffel grass and Rhodes grass were found consistently highly competitive in 2010; all reduced by more than 75% parthenium shoot growth and yielded by more than 550 g/m^2 dry fodder biomass. These results demonstrating that growing such pasture species in infested areas could be practical for the management of parthenium on sustainable basis.
B0015	Polymorphism of BMP15 Gene and Its Relationship with Litter Size of Najdi Goats **Jamal Fayazi,** Elham Javdan, Mohammad Taghi Baigi Nasiri, SalehTabatabaei, Ayeh Sadat Sadr

	Department of Animal Science, Ramin University of agriculture and Natural Resources, Ahwaz, Iran *Abstract*—BMP15 has crucial roles in fecundity of goat and sheep. So this study was conducted to evaluate the polymorphisms of BMP15 gene and its relationship with prolificacy of Najdi goat by PCR-SSCP technique. After extracting of 90 genomic DNA samples, 235 bp fragment of exon 2 of BMP15 gene was amplified by PCR and assayed by single stranded conformation polymorphism. The results showed that the product displayed polymorphism. Seven genotypes (AA, BB, FF, DD, EE, AD and AB) were detected in Najdi goats, and their frequency was 0.155, 0.167, 0.011, 0.011, 0.123, 0.133 and 0.4 respectively. The heterozygosity (H) was 0.533 in Najdi breed. The BMP15 gene is associated with the litter size of Najdi goats. This study could provide basic molecular data on the reproductive characteristics of local breeds of Khuzestan province in Iran, and a scientific basis for the conservation and utilization of Najdi breeds.
B0019	Effects of Onion (*Allium Cepa. Linn*) juice on serum Lipase and Amylase compared with Zn sulfate supplementation in the rats **Jamshid Ghiasi Ghalehkandi**, Yahya Ebrahimnezhad, Naser Maheri Sis, Abolfazl Ghorbani and Shahin Hassanpour Department of Veterinary Medicine, Islamic Azad University, Shabestar, Iran *Abstarct*—Onion (*Allium Cepa.*) is an old ancient medical treatment to render risk of various diseases. The aim of the current study was to investigate effects of different levels of Onion (*Allium Cepa. Linn*) juice on serum values of Lipase and Amylase compared with Zn sulfate supplementation in the rats. In group 1, served as control and received water and standard pellets as food *ad libitum*. In group 2, animals received basal diet + 1cc orally fresh onion juice. In group 3, rats were offered basal diet + 2cc orally fresh onion juice. Group 4 fed basal diet + 15 mg/kg orally zinc (Zn) sulfate complement. In group 5, rats treated with basal diet + 30 mg/kg orally Zn sulfate complement. In group 6, animals nourished with basal diet + 1cc orally fresh onion juice + 15 mg/kg orally Zn sulfate complement. In group 7, basal diet + 1cc orally fresh onion juice + 30 mg/kg orally Zn sulfate complement provided to rats. Group 8 consumed basal diet + 2cc orally fresh onion juice + 15 mg/kg orally Zn sulfate complement. In group 9, animals fed basal diet + 2cc orally fresh onion juice + 30 mg/kg orally Zn sulfate complement. Animals were treated for next 4 weeks. According to the data, single onion juice or Zn sulfate had no effects on serum amylase and lipase ($P>0.05$). Furthermore, there was no significant effects on serum amylase and lipase level after co-administration of onion juice and Zn sulfate ($P>0.05$).
ICCPE 2014	
C0002	Optimization Model for Scheduling of a Lube-oil Production Plant **Sanjeev Yadav** Shiv Nadar University, India *Abstract*—In this paper, a short-term scheduling model is developed for lube-oil production plant using unit-specific event-based continuous time representation and state-task-network (STN) based process representation. Important operational features of a lube-oil production plant such as stream splitting, stream addition, intermediate storage management, product changeover, and continuous feed stream are addressed in much simpler way using STN. The resulting model is a mixed integer linear programming (MILP) model which is solved using GAMS software.
C0004	Catalytic Effect of Silver on Bioleaching of Arsenopyrite

	Fang Fang Changsha University of Science and Technology, China *Abstract*—A study of the effect of different variables (Ag^+ concentration, pulp density, pH, inoculation,Fe^{3+} concentration) on the silver-catalyzed bioleaching of arsenopyrite by *Acidithiobacillus ferrooxidans* NSJ209 strains has been carried out in shake flasks. Results showed :Ag^+ has catalytic effect on arsenopyrite bioleaching. Especially, with the presence of Fe^{3+}, the catalytic effect is even better. When the Ag^+ concentration is 2mg/L; the pulp density is 2%; the pH is 2.0; after leaching for 16 days, the arsenic leaching rate is improved about 23.14% compared with leaching rate when Ag^+ is not added. However, high concentrations of Ag^+ will affect the bacterial growth and activity, resulting in a decline of the leaching rate.
C0007	Utilizing a Genetic Algorithm to Elucidate Chemical Reaction Networks: An Experimental Case Study Charles Jun Khiong Hii, Allen Wright, **Mark James Willis** Newcastle University, United Kingdom *Abstract*—An artificial intelligence technique based on a genetic algorithm to build chemical reaction network (CRN) from chemical species concentration data from batch reaction is introduced. This is achieved through a two level optimization approach. The first level constructs the CRN through combinations of stoichiometric coefficients of all chemical species and optimized using genetic algorithm. Second level determines the best estimate for the reaction rate constants for each of the reactions using a standard non-linear optimization algorithm. The process is repeated through a number of generations where the genetic algorithm will successively reduce the number of possibilities through elimination of poor CRNs (based on how closely the CRN is able to predict concentration profiles) and retaining and re-optimizing better CRNs. This system's capability is demonstrated on an experimental data for the reaction between trimethyl orthoacetate and allyl alcohol. The results show that the system is able to develop a CRN that when simulated provides an accurate model (model predictions matching experimental measurements) with little human intervention.
C0009	Design of a Digitally Controlled Inductor-less Voltage Multiplier for Non-Thermal Food Processing **Kei Eguchi**, Shinya Terada, and Ichirou Oota Fukuoka Institute of Technology, Japan *Abstract*—For non-thermal food processing systems utilizing an underwater shockwave, a digitally controlled voltage multiplier is proposed in this paper. The proposed voltage multiplier based on Cockcroft-Walton voltage multiplier (CWVM) has a bipolar structure. Unlike the conventional CWVM, the output voltage of the proposed multiplier is expressed by sum of the output voltage of positive and negative voltage multiplier blocks. Therefore, the number of stages of the proposed multiplier is about a half of that of the conventional CWVM. Furthermore, by utilizing high-low side drivers and a microcontroller, the diode switch of the proposed multiplier is driven by high-speed rectangular pulses. For these reasons, the proposed multiplier can achieve not only high voltage efficiency but also high speed operation. The validity of the circuit design is confirmed by theoretical analysis, simulation program with integrated circuit emphasis (SPICE) simulations, and experiments. The simulation results show that the settling time of the proposed voltage multiplier is less than 1/400 of that of the conventional CWVM. Furthermore, the experimental results show that the proposed voltage multiplier can improve voltage

	efficiency more than 21% from the conventional CWVM when the input voltage is 10V@60Hz and the output capacitor is 10μF.
C0010	Equilibrium Study on Reactive Extraction of Nicotinic Acid from Aqueous Solution **Sushil Kumar**, Suantak Kamsonlian and Neha Chomal Motilal Nehru National Institute of Technology, Allahabad INDIA *Abstract*—Nicotinic acid (3-pyridine carboxylic acid) widely used in food, pharmaceutical and biochemical industries is an important chemical. Due to ecological problems and complicate the synthesis methods, the chemical route for nicotinic acid production will become unattractive in the future. The aim of the present work is to study the reactive extraction of nicotinic acid from aqueous solutions using TOA dissolved in MIBK to intensify nicotinic acid production via enzymatic route. The extraction efficiency is determined in terms of distribution coefficient (K_D), degrees of extraction (E) and loading ratios (Z). The effects of initial acid concentration and composition of extractant (TOA) are determined. The maximum value of K_D is found to be 5.8 with TOA (0.57 mol/L) at an acid concentration of 0.12 mol/L. The mathematical model, based on mass action law, is proposed to estimate the values of equilibrium constants (K_E) and number of reacting acid molecules per extractant molecules in chemical extraction. Population based search algorithm, differential evolution (DE) as an optimization algorithm is used to determine the equilibrium extraction constants (K_E) and the stoichiometry of reactive extraction through a proposed equilibrium model. The model predicted values of K_E are showing good correlation with $R^2 > 0.98$ and maximum value of $SD = 0.092$.
C1003	Selection of Normal Melting Temperature Data of Imidazolium-type Ionic Liquids by Chemical Homology **José O. Valderrama** and Richard A. Campusano UNIVERSITY OF LA SERENA, CHILE *Abstract*—A simple method based on homologous series for determining the best available data for the normal melting temperature (Tm) of ionic liquids (ILs) proposed by the authors (Valderrama and Rojas, 2012) is revised and extended. The selection of melting temperature data of ionic liquids is necessary because of the great differences in the values reported in the literature for the same ionic liquid, differences that produce a major problem when such data are used for design, simulation or for developing correlation and estimation methods. The extension of the homology method proposed in this paper considers doing homology between all ionic liquids for which experimental data are available instead of using data for ionic liquids that contains one reference fluid only (hexaflurophosphate ionic liquids), as previously proposed by the authors. The method shows to be effective to detect outliers among the data available. A database for the melting temperature of imidazlolium-type ionic liquids is proposed.
C1004	Artificial Neural Networks and the Melting Temperature of Ionic Liquids **José O. Valderrama** and Claudio A. Faúndez UNIVERSITY OF LA SERENA, CHILE *Abstract*—The use of artificial neural networks (ANN) for the correlation and prediction of the melting temperature of ionic liquids is analyzed in this paper. Several network architectures and two sets of data were analyzed and results compared with others from the literature. The independent variables considered for training the ANN were: groups forming the molecules, mass of the cation, mass of the anion and mass connectivity index. As a measure of the accuracy of the method the average deviation and the average absolute deviation are evaluated. Results of this work and others from the literature indicate that

	appropriate selection of data, a good combination of architecture and variables can lead to acceptable correlation of data but accurate prediction is not yet possible.
C1009	Parametric Study for High-Frequency, High-Intensity Ultrasonics in Particle Removal **Vetrimurugan**, J. Michael Goodson and Terry Lim JALAN PERUSAHAAH, BUKIT TENGAH IND PARK, MALAYSIA *Abstract*—In this paper, we describe an experimental study undertaken to investigate ultrasonic and megasonic fields in the frequency range 25 kHz – 360 kHz, temperature range 30 ^{o}C – 70 ^{o}C and re-circulation range 0 – 10 GPM with respect to their surface cleaning and erosion potential. Measurements are performed using three different methods – LPC, cavitation intensity and aluminium foil test – to assess these mechanisms mainly for disk drive components. Conclusions are drawn regarding the nature of interactions between high-frequency, high-intensity ultrasonic fields and temperature. Recommendations are provided for optimal settings to maximize surface cleaning for variety of disk drive components.
C1010	Thermal Behavior of Used Alkaline Primary Button Batteries Disposed as General Waste **Wasana Kowhakul**, Kazuki Yoshimura, Hiroshi Masamoto, Mikiji Shigematsu Fukuoka University, Japan *Abstract*—The thermal behavior of new (1.5 V) and used (0 V) primary LR1130 alkaline button batteries was investigated by thermogravimetric differential thermal analysis (TG/DTA). The anode (MnO_2) and cathode (Zn) from the batteries were mixed with paper or plastic (1:1). Cellulose and polyethylene were used to represent paper and plastic, respectively. The thermal behavior of MnO_2, Zn and the separator from both new and used batteries was comparable by TG/DTA using. There was no exo- or endothermic decomposition of Zn and minor exothermic decomposition of MnO_2 from new and used batteries. MnO_2 and Zn were markedly affected by the thermal decomposition of cellulose. However, cellulose mixed with MnO_2 was more of a thermal hazard than when mixed with Zn. Moreover, MnO_2 and Zn from both new and used batteries were also affected considerably by the thermal behavior of polyethylene. Therefore, the accidental disposal of used alkaline button batteries shows high potential to lead to an accident.
C1011	Reduction of the Cloud Point of Biodiesel by Combination of Various Factors **Masatoshi Todaka**, Toru Horinouchi, Koichi Yata, Wasana Kowhakul, Hiroshi Masamoto, and Mikiji Shigematsu Fukuoka University, Japan *Abstract*—Optimization to reduce the cloud point of biodiesel fuel (BDF) was investigated by considering the combination of different kinds of alcohols for transesterification, catalyst type, and blending with castor BDF. Rapeseed oil (R), spent coffee oil (S), and jatropha oil (J) were used as raw materials. The cloud point of BDFs prepared with 1-butanol was found to be lower than that of those using methanol. H_2SO_4 was a more effective catalyst to reduce cloud point than NaOH. As for blending with castor BDF, the cloud point was decreased from −7 to −7.5 ℃ for a 25 wt% blend of castor BDF with R-BDF, from 10.2 to 8.0 ℃ with S-BDF, and from 8.2 to 2.8 ℃ with J-BDF with permissible increases of kinetic viscosities. From the above results, the optimized conditions of 1-butanol, H_2SO_4 and 25 wt% castor BDF were determined. Under these conditions, the cloud points were −7.5, 2.8 and −3.5 ℃ for R., S. and J. BDFs, respectively. This paper that the blend ratio of castor BDF was at 25 wt% or less, it was possible to suppress the increase in kinetic viscosity.
C3001	Lipase-mediated Formation of Peroxyoctanoic Acid Used in Catalytic Epoxidation of

	α-pinene from Turpentine Oil **Wijayati N.**, Kusoro Siadi, Hanny Wijaya, Maggy Thenawijjaja Suhartono Semarang State University, Indonesia *Abstract*—This work describes the lipase-mediated synthesis of α -pinene oxide at ambient temperature. The immobilized lipase from *Pseudomonas aeruginosa* is used to generate peroxyoctanoic acid directly from octanoic acid and hydrogen peroxide. The peroxy acid formed is then applied for in situ oxidation of α -pinene. High conversion of α -pinene to α -pinene oxide (approximately 78%) was achieved when using 0,1 g enzim lipase, 6 mmol H_2O_2, dan 5 mmol octanoic acid. Various parameters affecting the conversion of α -pinene to α -pinene oxide were studied

19:00	**Dinner**

Chulaongkorn University
Environmental Research Institute, Academic visit

14:30- 16.30, June 11, 2014

Chulalongkorn University
จุฬาลงกรณ์มหาวิทยาลัย
Pillar of the Kingdom

Time	Activities
14:30	APCBEES members arrive at the Environmental Research Institute, Chulalongkorn University (ERIC)
14:30–15:00	**Welcome speech and Introduction of ERIC** Assoc. Prof. Dr. Chakkaphan Sutthirat Director of Environmental Research Institute, Chulalongkorn University (ERIC)
15:00–15:30	**Introduction of ERIC Research Focus**
	Hazardous Waste Management , Metal Contamination and Green Mining Asst. Prof. Dr. Chantra Tongcumpou Deputy Director
	Environmental Management and Policy Dr. Sujitra Vassanadumrongdee Researcher
	Climate Change and Disaster Management Dr. Suthirat Kittipongvises Lecturer
15:30-15:45	Coffee Break
15:45-16:30	**Discussion**

	Topic: “Environmental and Sustainable Development”

Conferences ending, thanks !

Conference venue

Venue Place

Hotel ibis Bangkok Riverside

(27 Soi Charoennakorn 17, Charoennakorn Road, Banglamphulang, Klongsan, Bangkok 10600, Thailand)

Tel : 66 (0) 2805 9888
Fax : 66 (0) 2805 9889
http://ibishotel.ibis.com/gb/hotel-7026-ibis-bangkok-riverside/index.shtml

APCBEES FORTHCOMING CONFERENCES

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

Conference		PUBLICATION
August 06-08, 2014, Singapore		
ICEAE 2014	2014 4th International Conference on Environmental and Agriculture Engineering (ICEAE 2014) **www.iceae.org/**	Journal of Advanced Agricultural Technologies (JOAAT ISSN: 2301-3737)
ICCCE 2014	2014 5th International Conference on Chemistry and Chemical Engineering (ICCCE 2014) **www.icccce.org/**	International Journal of Chemical Engineering and Applications (IJCEA, ISSN:2010-0221)
ICGES 2014	2014 3rd International Conference on Geological and Environmental Sciences (ICGES 2014) **www.icges.org/**	Volume of Journal (IPCBEE, ISSN: 2010-4618)
August 26-27, 2014, Taipei, Taiwan		
CCEA 2014	2014 5th International Conference on Chemical Engineering and Applications (CCEA 2014) **www.ccea.org/**	Volume of Journal (IPCBEE, ISSN: 2010-4618)
ICSEE 2014	2014 International Conference on Substantial Environmental Engineering (ICSEE 2014) **www.icsee.org/**	International Journal of Environmental Science and Development (IJESD, ISSN:2010-0264)
ICBBE 2014	2014 International Conference on Biomedical and Bioinformatics Engineering (ICBBE 2014) **www.icbbe.com/**	International Journal of Bioscience, Biochemistry and Bioinformatics (IJBBB, ISSN: 2010-3638)
Sep. 15-16, 2014, Paris, France		

ICBEE 2014	2014 6th International Conference on Chemical, Biological and Environmental Engineering (ICBEE 2014) **www.icbee.org/**	Volume of Journal (IPCBEE, ISSN: 2010-4618)
ICECS 2014	2014 7th International Conference on Environmental and Computer Science (ICECS 2014) **www.icecs.org/**	International Journal of Modeling and Optimization (IJMO, ISSN:2010-3697)
ICBEM 2014	2014 4th International Conference on Biotechnology and Environment Management (ICBEM 2014) **www.icbem.org/**	International Proceedings of Chemical, Biological and Environmental Engineering (IPCBEE, ISSN: 2010-4618)
Sep 27-28, 2014, Bali, Indonesia		
ICREE 2014	2014 2nd International Conference on Renewable Energy and Environment (ICREE 2014) **www.icree.net/**	Journal of Clean Energy Technologies (JOCET, ISSN: 1793-821X)
ICCAE 2014	2014 2nd International Conference on Civil and Architecture Engineering (ICCAE 2014) **www.iccae.net/**	Volume of Journal (IPCBEE, ISSN: 2010-4618)
ICBMS 2014	2014 2nd International Conference on Biological and Medical Sciences (ICBMS 2014) **www.icbms.org/**	Journal of Medical and Bioengineering (JOMB, ISSN: 2301-3796)
Oct. 08-09, 2014, Jinju, South Korea		
ICAAS 2014	2014 5th International Conference on Agriculture and Animal Science (ICAAS 2014) **www.icaas.net/**	Journal of Advanced Agricultural Technologies (JOAAT, ISSN:2301-3737)
ICEBS 2014	2014 4th International Conference on Environment and BioScience (ICEBS 2014) **www.icebs.org/**	International Journal of Environmental Science and Development (IJESD, ISSN:2010-0264)

ICAFS 2014	2014 International Conference on Advances in Food Sciences (ICAFS 2014) **www.icafs.org/**	Volume of Journal (IPCBEE, ISSN: 2010-4618)
Oct. 29-30, 2014, California, USA		
ICBEC 2014	2014 5th International Conference on Biology, Environment and Chemistry (ICBEC 2014) **www.icbec.org/**	Volume of Journal (IPCBEE, ISSN: 2010-4618)
ICPBS 2014	2014 2nd International Conference on Pharmaceutical and Biological Sciences (ICPBS 2014) **www.icpbs.com/**	Journal of Medical and Bioengineering (JOMB, ISSN: 2301-3796)
ICSEA 2014	2014 2nd International Conference on Sustainable Environment and Agriculture (ICSEA 2014) **www.icsea.org/**	Volume of Journal (IPCBEE, ISSN: 2010-4618)
Nov. 12-13, 2014, Auckland, New Zealand		
ICFAS 2014	2014 2nd International Conference on Food and Agricultural Sciences (ICFAS 2014) **www.icfas.org**	Volume of Journal (IPCBEE, ISSN: 2010-4618),
ICMEB 2014	2014 2nd International Conference on Medical, Environmental and Bio-technology (ICMEB 2014) **www.icmeb.org**	Journal of Medical and Bioengineering (JOMB, ISSN: 2301-3796)
ICEPP 2014	2014 2nd International Conference on Environment Pollution and Prevention (ICEPP 2014) **www.icepp.org**	International Journal of Environmental Science and Development (IJESD, ISSN:2010-0264)
Nov. 29-30, 2014, Mauritius		
ICCEN 2014	2014 3rd International Conference on Civil Engineering (ICCEN 2014) **www.iccen.org**	APCBEE Procedia (Journal under Elsevier, ISSN: 2212-6708)
ICECB 2014	2014 3rd International Conference on Environment, Chemistry and Biology (ICECB 2014) **www.icecb.org**	Volume of Journal (IPCBEE, ISSN: 2010-4618)

ICFSH 2014	2014 International Conference on Food Sciences and Health (ICFSH 2014) **www.icfsh.org**	Journal of Advanced Agricultural Technologies (JOAAT ISSN: 2301-3737)
Dec. 13-14, 2014, Kuala Lumpur, Malaysia		
ICESR 2014	2014 International Conference on Environmental Systems Research (ICESR 2014) **www.icesr.org**	APCBEE Procedia (Journal under Elsevier, ISSN: 2212-6708)
ICLSE 2014	2014 3rd International Conference on Life Science and Engineering (ICLSE 2014) **www.iclse.org**	Journal of Life Sciences and Technologies (JOLST, ISSN: 2301-3672)
ICFB 2014	2014 3rd International Conference on Future Bioengineering (ICFB 2014) **www.icfb.org**	Volume of Journal (IPCBEE, ISSN: 2010-4618)
Dec. 29-30, 2014, Phuket, Thailand		
ICABT 2014	2014 2nd International Conference on Agriculture and Biotechnology (ICABT 2014) **www.icabt.org**	Volume of Journal (IPCBEE, ISSN: 2010-4618)
ICESB 2014	2014 4th International Conference on Environment Science and Biotechnology (ICESB 2014) **www.icesb.org**	APCBEE Procedia (Journal under Elsevier, ISSN: 2212-6708)
ICCSE 2014	2014 3rd International Conference on Chemical Science and Engineering (ICCSE 2014) **www.iccse.org**	International Journal of Chemical Engineering and Applications (IJCEA, ISSN:2010-0221)

Welcome to submit papers or participate in our upcoming conferences.

Note

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Note