2014 APCBEES AUCKLAND CONFERENCES SCHEDULE

2014 2nd International Conference on Food and Agricultural Sciences (ICFAS 2014) 2014 2nd International Conference on Medical, Environmental and Bio-technology (ICMEB 2014) 2014 2nd International Conference on Environment Pollution and Prevention (ICEPP 2014)

Auckland, New Zealand

November 12-13, 2014

Auckland Rose Park Hotel

Sponsored and Published by



www.cbees.org

2014 Auckland Conferences Introduction

Welcome to CBEES 2014 conferences in Auckland, New Zealand. The objective of the Auckland, New Zealand 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 Food and Agricultural Sciences, Medical, Environmental and Bio-technology, and Environment Pollution and Prevention.

2014 2nd International Conference on Food and Agricultural Sciences (ICFAS 2014)



Paper publishing and index: All papers of ICFAS 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 EI Compendex and ISI Proceedings.

Conference website and email: <u>http://www.icfas.org/</u>; <u>icfas@cbees.net</u>

2014 2nd International Conference on Medical, Environmental and Bio-technology (ICMEB 2014)



Paper publishing and index: All ICMEB 2014 papers will be published in the Journal of Medical and Bioengineering (JOMB, ISSN: 2301-3796) or International Journal of Bioscience, Biochemistry and Bioinformatics (IJBBB, ISSN: 2010-3638), 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: <u>http://www.icmeb.org/</u>; <u>icmeb@cbees.net</u>

2014 2nd International Conference on Environment Pollution and Prevention (ICEPP 2014)



Paper publishing and index: All ICEPP 2014 papers will be published in the International Journal of Environmental Science and Development (IJESD, ISSN:2010-0264), and all papers will be included in the Engineering & Technology Digital Library, and indexed by EBSCO, CABI, DOAJ, WorldCat, Google Scholar, Cross ref, ProQuest and sent to be reviewed by Ei Compendex and ISI Proceedings.
 Conference website and email: <u>http://www.icepp.org/</u>; <u>icepp@cbees.net</u>

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 November 13, 2014.

Brief Schedule for Conferences



Detailed Schedule for Conferences

November 12, 2014 (Wednesday)

Venue: Lobby

10:0	00am-5:00pm	Arrival and Registration
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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 November 13, 2014.

Morning, November 13, 2014 (Thursday)

Venue: Gladstone Room

8:30am-8:40am	Opening Remarks Dr Wei Yu The University of Auckland, New Zealand
8:40am-9:20am	Keynote Speech I Dr. Kelvin Kian Loong Wong The University of Western Australia Speech Title: "Biomechanical Analysis Based on Medical Imaging, Computational Fluid Dynamics, and Discrete Element Method"
9:20am–10:00am	Keynote Speech II Dr Wei Yu The University of Auckland, New Zealand Speech Title: "Process Analytical Technologies in the Dairy Industry"
10:00am-10:20am	Coffee Break&Taking Photo



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 8 Minutes of Presentation and 2 Minutes of Q&A Keynote Speech: 30 Minutes of Presentation and 10 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.

Presentation Tracking Contents

SESSION–1 Va Ses Ti	(ICEPP 201 enue: Gladst sion Chair: 7 me: 10:20an	l4 for 11 Presenters) cone Room Γο be added n-12:10pm	SESSION–2 Ve Ses T	(ICFAS 2014 nue: Gladsto sion Chair: I ime: 1:30pm	4 for 10 Presenters) one Room Dr Wei Yu -3:20pm
PAGE	PAPER ID	PRESENTER	PAGE	PAPER ID	PRESENTER
6	E0004	Ming Hang Tai	10	F0001	Muhammad Waqar Ashraf
7	E0007	Khalid A. Alsaif	11	F0005	Iwona Batyk
7	E0012	Norazli Othman	11	F0007	Panupong Ampaichaichok
7	E0014	Muhammad Rashed Al Mamun	11	F0008	Erwin dR. Magsakay
8	E0015	Mary Panko	12	F0010	Mostak Ahmed
8	E0016	Aida Isma M.I	12	F0014	Murilo T. Domingues
8	E0018	Seul-Ye Lim &	12	F0019	Z. A. Nur Hanani

		Seung-Hoon Yoo			
9	E0020	A. Gholizadeh	13	F0026	Mustafa Fadhel
9	E0030	Nilofar Asim	13	F3003	Ho Phu Ha
9	E1001	Gloria L. Galan	13	F4001	Saif Al Qaydi
10	E1002	HEIDI C. PORQUIS			
SESSION- V Session Cha	-3 (ICFAS&I Presente enue: Gladst ir: Dr. Kelvi fime: 3:40pn	CMEB 2014 for 11 ers) one Room n Kian Loong Wong n-5:30pm	A 1. Each p	Attention I	Please:
PAGE	PAPER ID	PRESENTER	(includii	ng question a	nd answer time) for
14	F0004	Tony Fang	answering	g the question	. Please control your
15	M0001	Kamran Ahsan		presentatio	on time.
15	M0007	Zar Thent	2. Please k	indly prepare	your PPT or poster
15	M0008	Erly Marwani	accordi	ng to your res	earch and the time
16	M0013	Ravneet Grewal	regulation	the conform	nierence and take it to
16	M0018	Manuel Rost	3 Please	arrive at the	conference room
17	M0020	Nico Heussner	Gladstone	Room) befor	e vour session begins
17	M0027	Shyan-Lung Lin	Hoping you	will have a m	ood time during the
17	M1005	Titin A. Wihastuti	Toping you	conferen	ce
18	M1009	Chooi Ling Lim		conterent	
18	M0030	Kelvin Kian Loong Wong			

Morning, November 13, 2014 (Thursday)

SESSION-1 (ICEPP 2014 2nd)

Venue: Gladstone Room Session Chair: To be added Time: 10:20am-12:10pm

E0004	A Hierarchically-nanostructured TiO2-carbon Nanofibrous Membrane for Concurrent
	Gravity-driven Oil-water Separation
	Ming Hang Tai, Peng Gao, Benny Yong Liang Tan, Darren D. Sun, and James O. Leckie
	Nanyang Technological University
	Abstract—A membrane with selective wettability and excellent thermal and chemical stability
	is required for effective oil-water separation. In this work, a novel TiO ₂ nanosheet-anchored
	carbon nanofibers fabricated by using solvothermal method is presented. The hierarchical
	TiO ₂ micro/nanostructure that grows on the surface of carbon nanofibers renders the
	membrane superhydrophilic and underwater superoleophobic. Coupled with the characteristic
	of high porosity and micron-scale pore size, the membrane is capable of separating oil from

	water by gravity. Thermal analysis show that the oil-water separation efficiency is greater than
	99 %. Furthermore, the membrane has an oil breakthrough pressure up to 3.63 m which is the
	highest breakthrough pressure ever reported. Stability test indicates that the membrane is
	stable in ultrasonic, thermal and extreme pH conditions. Without compromising the separation
	efficiency, a permeate flux of 400-700 L/m^2 -hr can be achieved.
E0007	Development of Noise Maps of Great City of Riyadh by Using LimA
	Khalid A. Alsaif, Mosaad A. Foda
	King Saud University
	<i>Abstract</i> —Riyadh City, the capital of the Kingdom of Saudi Arabia, has been subjected to continual increase in road traffic due to overall increase in prosperity, fast development and expansion of economy. In this paper, the first round of noise mapping for Riyadh City is developed by using the Predictor-LimA 7810 software. Road traffic data were measured or estimated as accurate as possible in order to obtain reliable noise maps. The simulation results at some chosen locations are validated by actual field measurements, which are obtained by a system that consists of a sound level meter, a GPS receiver and a database to manage the measured data. The maps show that noise levels remain over 50 dBA and can exceed 75 dBA
	at the nearside of major roads and highways.
E0012	Speed, Stability and Maintenance of New and Reusable Computer to the User: A Comparative
	Study
	Norazli Othman, Samira Albati Kamaruddin, Nor'azizi Othman and Abdul Moeis Abdul
	Shukor
	Universiti Teknologi Malaysia
F0014	<i>Abstract</i> —Approach towards environmental friendly development concept introduces Green Technology Computing System (GTCS) as a technique to reuse obsolete computer in sustainable manner. Instead of purchasing new computers to replace old computers, the Disc on Module (DOM) can be installed into the obsolete computer to transform them into GTCS. In this study, the obsolete computers with GTCS were tested to run all the software programs that were usually utilized in the new computers. The survey questionnaires methodology is established to support the result of the computer data processor in terms of speed, stability and maintenance of the new and obsolete computer to the user. The result of the study shows that, obsolete computer shows the best performance to the users in terms of speed, stability and maintenance. However, new computer shows the best stability in terms of computer graphic condition and computer accessory condition. The finding of the study reveals that GTCS can contribute to reduce computer waste volume due to the reuse of obsolete computers by the users. This green solution is environmental friendly solution for managing computer waste in future.
E0014	Kemoval of Hydrogen Sulfide (H ₂ S) from Biogas Using Zero-valent Iron
	Iviunaninaa Kasnea Ai Ivianiun and Snuichi TOKII
	Kumamoto University
	<i>Abstract</i> —In this study, 90% purity zero-valent iron selected as hydrogen sulfide adsorbent was introduced to a biogas-to-biomethane generation. The average H_2S concentration of 211, 138 and 139 ppm was introduced into the chemical H_2S elimination system. The both tests result showed that the H_2S -concentration could reach below 50 ppm which acceptable for

	muning in internal combustion on since In this process the process of all C depends on the use
	running in internal combustion engines. In this process the removal of H ₂ S depends on the use of the removal substances and $P^{\rm H}$. The effect of $P^{\rm H}$ on the U.S. removal with $E_{\rm e}^{0}$ is attributed
	of the removal substances and P. The effect of P on the H_2S removal with Fe is attributed
	to the formation of FeS through the precipitation of Fe(II) and sulfide. The maximum
	absorption efficiency was obtained 95% at P ² 6 for Fe ⁻ , which are higher than conventional
	adsorbents. The H_2S removal using zero-valent iron reduced high operation cost and risk
	factor to the process. Therefore, it is still highly recommended not only for preventing metal
	corrosion but also prevents the environmental pollution.
E0015	Integrating Waste Management and Pollution Control in Tertiary Vocational Education
	Programmes: Case Studies
	Mary Panko and Rashika Sharma
	Unitec Institute of Technology
	Abstract—Strategies to minimise pollution and environmental damage must start with the
	training of students ready to take their places in industry. These case studies show that by
	immersing students in the practicalities of waste management, they acquire a deeper
	understanding of the wider principles of pollution control. Degree students had to climb into
	waste bins, analyse the contents and research recycling opportunities. To investigate the extent
	to which this process had made an impact on them, they completed a questionnaire which
	explored their attitudes in relation to waste management and to the way in which they had
	been introduced to the topic. A second case study examined the views of International students
	about sustainability. Both studies showed that they considered the subject valuable and would
	apply wider principles of sustainability once they were employed in their chosen profession
	and in their own countries
E0016	Mixed plastic wastes pyrolysis in a fluidized bed reactor for potential diesel production
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	attributes of benefits such as reduction of greenhouse gas emissions (GHG), mitigation of air
	pollutants emissions, improvement of energy security, and new job creation by conducting a
	survey of 600 households. The estimation results from the CE model show that the marginal
	willingness to pay values for a 1% reduction of GHG emissions, a 1% mitigation of air
	pollutants emissions, a 1%p increase in energy security, and creation of 100 new jobs as a
	result of developing and expanding the use of BE are estimated to be KRW 2,436 (USD 2.3),
	3,117 (2.9), 6,574 (6.1), and 1,107 (1.1) per household per month, respectively.
E0020	A Spectroscopic Approach to Assess Potentially Toxic Elements of Reclaimed Dumpsites in
	the Czech Republic
	A. Gholizadeh, L. Borůvka, and M.M. Saberioon
	Czech University of Life Sciences Prague
	Abstract—Monitoring of Potentially Toxic Elements (PTEs) in anthropogenic soils on brown
	coal mining dumpsites requires a large number of samples and cumbersome and
	time-consuming laboratory measurements. Reflectance spectroscopy within the Visible-Near
	Infrared (Vis-NIR) region has been used to predict soil constituents due to its rapidity.
	convenience and accuracy. This study evaluated the suitability of Vis-NIR (350-2500 nm)
	reflectance spectroscopy for predicting PTEs concentration, using samples collected on large
	brown coal mining dumpsites in the Czech Republic. Partial Least Square Regression (PLSR)
	and Support Vector Machine Regression (SVMR) with cross-validation were used to relate
	PTEs data to the reflectance spectral data by applying different preprocessing strategies
	Overall SVMR models for the Vis-NIR spectra could be indirectly used for accurate
	assessment of PTEs' concentrations
E0030	Effect of Chemical Treatments on Rice Husk (RH) Water Absorption Property
20020	Zevnah Emdadi Nilofar Asim M Ambar Yarmo and K Sonian
	Universiti Kebangsaan Malaysia (UKM)
	Abstract—This study involves the investigation of replacing chemical desiccants with natural
	fibers as a novel and sustainable alternative materials. In this study, the feasibility of using rice
	husk (RH) and its treated forms with alkali and acid solution and their blends as desiccant
	materials have been investigated. The bare RH, treated RH and the mixed materials have been
	characterized using FTIR, XRD, TGA, BET and SEM. The ability of water absorbance for the
	prepared samples has been compared at $28 + 2$ °C. The elementary test of water absorbance
	was determined to be in the following order: acid treated RH >alkali treated RH > bare RH
	The composite complex with higher responses of acid tracted DII showed higher water
	The composite samples with higher percentage of acid treated KH showed higher water
	absorbance which is likely to be attributed to the porosity and improvement of adhesion
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E1001	 The composite samples with higher percentage of acid treated KH showed higher water absorbance which is likely to be attributed to the porosity and improvement of adhesion properties (surface hydroxyl groups) in the prepared samples. Diversity of Gastropods in the Selected Rivers and Lakes in Bukidnon Gloria L. Galan, Marilou M. Ediza, Marife S. Servasques, and Heidi C. Porquis Central Mindanao University <i>Abstract</i>—Diversity and abundance of Gastropods were determined in seven sampling sites in Bukidnon, Philippines: Maapag, Matay, and Tigua rivers and Lakes Napalit, Apo, and Pulangui for a period of one year from June 2011-May 2012 Pulangui Lake is a manmade
E1001	 The composite samples with higher percentage of acid treated KH showed higher water absorbance which is likely to be attributed to the porosity and improvement of adhesion properties (surface hydroxyl groups) in the prepared samples. Diversity of Gastropods in the Selected Rivers and Lakes in Bukidnon Gloria L. Galan, Marilou M. Ediza, Marife S. Servasques, and Heidi C. Porquis Central Mindanao University <i>Abstract</i>—Diversity and abundance of Gastropods were determined in seven sampling sites in Bukidnon, Philippines: Maapag, Matay, and Tigua rivers and Lakes Napalit, Apo, and Pulangui for a period of one year from June 2011-May 2012. Pulangui Lake is a manmade impoundment while all the other sites are natural formations. Sampling was done in a 100m x
	absorbance which is likely to be attributed to the porosity and improvement of adhesion

	sieving. Seven species representing 5 families were collected. Shannon-Weiner index shows
	that the highest diversity is in Tigua river (H'= 0.518) and lowest is in Pulangui lake
	(H'=0.144). Tigua River has also the most abundant gastropod species.
E1002	Shell Band Pattern of Golden Apple Snail (Pomacea cancaliculata, Lamarck) in Selected
	Aquatic Habitats
	GLORIA L. GALAN, HEIDI C. PORQUIS and MAE ANN R. BULASA
	Central Mindanao University
	Abstract—Environmental factors affecting band patterns in the shell of Pomacea canaliculata,
	(Lamarck 1822) were assessed from shell samples taken in selected sites in Central Mindanao
	University campus, and vicinities in Bukidnon province, Philippines. Shell samples with
	sizes of 2 cm and above were used. The conchological characteristics measured were number
	of whorls, number of bands, width of each band, width of the shell aperture and shell length.
	Live weight of each individual snail was taken. The depth, temperature, pH, dissolved oxygen
	(DO) and salinity of water were also measured. Pearson correlation analysis shows that only
	variation in water depth had significant influence on the variation in the number of bands (r =
	973, P=.01) and the average band width ($r = .892$, P = .05).

12:10pm-1:30pm

Lunch

Afternoon, November 13, 2014 (Thursday)

SESSION-2 (ICFAS 2014 2nd)

Venue: Gladstone Room

Session Chair: Dr Wei Yu

Time: 1:30pm-3:20pm

F0001	Magnetic Treatment of Irrigation Water and Its Effect on Water Salinity
	Muhammad Waqar Ashraf
	Prince Muhammad Bin Fahd University
	Abstract—The influence of magnetic field on the structure of water and aqueous solutions are
	similar and can alter the physical and chemical properties of water-dispersed systems. With
	the application of magnetic field, hydration of salt ions and other impurities slides down and
	improve the possible technological characteristics of the water. Magnetic field can enhance the
	characteristic of water i.e. better salt solubility, kinetic changes in salt crystallization,
	accelerated coagulation, etc. Gulf countries are facing critical problem due to depletion of
	water resources and increasing food demands to cover the human needs; therefore water
	shortage is being increasingly accepted as a major limitation for increased agricultural
	production and food security. In arid and semi- arid regions sustainable agricultural
	development is influenced to a great extent by water quality that might be used economically
	and effectively in developing agriculture programs. In the present study, the possibility of

	using magnetized water to desalinate the soil is accounted for the enhanced dissolving
	capacity of the magnetized water. Magnetic field has been applied to treat brackish water. The
	study showed that the impact of magnetic field on saline water is sustained up to three hours
	(with and without shaking). These results suggest that even low magnetic field can decrease
	the electrical conductivity and total dissolved solids which are good for the removal of salinity
	from the irrigated land by using magnetized water.
F0005	Effect of Age on the Perception of Functional Foods by Residents of Polish
	Iwona Batyk
	University of Warmia and Mazury in Olsztyn
	Abstract—The study attempted to determine the effect of age on the perception of functional
	foods by Polish consumers. The paper presents results of surveys were conducted in 2012
	among Polish respondents, who were chosen using random selection. The study used a
	method of diagnostic survey. The aim of the study was to investigate the consumption of
	functional foods, depending on the age of the respondents, specify the types of products
	consumed and its consumption motives. The opinions of respondents regarding the
	comparison of the organoleptic attributes and nutritional value of functional foods to
	conventional food were collected. The results indicate that age influences the type of
	consumer intake of functional food. Differences also arise concerning the comparison of the
	nutritional value and organoleptic attributes of functional foods to conventional food.
	Changing themes consumption of such foods and relate primarily to improve physical
	condition and improve mood and well-being.
F0007	Effects of Different Molecular Weights of Chitosan Coatings on Postharvest Qualities of 'Nam
	Dok Mai' Mango
	Panupong Ampaichaichok, Pranee Rojsitthisak, and Kanogwan Seraypheap
	Department of Botany, Faculty of Sciences, Chulalongkorn University
	Abstract—The effects of varying molecular weights of chitosan and storage time of chitosan
	solutions on postharvest quality of 'Nam Dok Mai' mango fruit were investigated. Chitosan
	coating solutions were prepared from low Mw ($65,000 \text{ Da} = \text{LM-CTS}$), medium Mw ($240,000$
	Da = MM-CTS) and high Mw (410,000 Da = HM-CTS). Coating solutions were separated
	into 2 groups: freshly prepared and 14-days stored solutions. Mango fruits coated with
	14-days stored chitosan coating solutions had higher disease incidences and lower postharvest
	qualities compared to those coated with freshly prepared solutions. Among the freshly
	prepared solutions, freshly prepared MM-CTS showed the best results, in term of longer shelf
	life, fewer disease incidences and delayed ripening characteristics. In conclusion, our results
	suggest that freshly prepared MM-CTS solution can be used as an effective coating agent for
	the extension of 'Nam Dok Mai' mango's shelf life.
F0008	Sustainable Rice-Cattle Integrated Farming System for Small Landholders in the Province of
	Bulacan
	Erwin dR. Magsakay, Nasher G. Jimenez, and Elmer P. Dadios
	Bulacan State University
	Abstract—The escalating concerns regarding expanding population, pollution, desertification,
	depletion of energy reserves, and degradation of natural resources set forth sustainable
	development to become an important topic in social, political and scientific agenda in recent

	years. Sustainable agriculture with sustainable ecosystems ensures the socio-economic
	development for future generations. This paper presents a rice-cattle integrated farming
	system model for small landholders in the province of Bulacan. The results discuss the
	average annual expenditure and income in the rice, cattle and combined rice cattle farming
	system. The future directives of this work enfold development of agricultural machinery to
	system. The future directives of this work enfort development of agricultural machinery to
	support the integrated farming system, further improvement on socio-economic aspects of the
	farmers, environmental aspects such as significant sequestration of carbon as one of the
	agricultural by-products.
F0010	Improvement of Antioxidant Status in Nile Tilapia Oreochromis niloticus Using Hot Water
	Extract of Waste Mushroom Stalk
	Mostak Ahmed, Noorlidah Abdullah, Adawiyah Suriza Shuib, and Shaharudin Ab Razak
	University of Malaya
	Abstract—Polluted aquatic environment greatly affect the growth and survival of widely
	distributed Nile tilania <i>Oreochromis niloticus</i> and safe disposal of drastically increasing waste
	mushroom stalk (WMS) becomes a hurning issue for mushroom growers. We have evaluated
	the provimete composition of hot water extract (HWE) of WMS on the antioxident status of
	Nile tilerie. UWE was found as rich source of protein linid and hets shuger. Dead on various
	Nie thapia. Hwe was found as fich source of protein, lipid and beta glucan. Based on various
	In vitro antioxidant assays, HWE showed promising with IC_{50} values of 1.041, 4.14 and 0.814
	mg/ml for 1,1-Diphenyl-2-Picrylhydrazyl (DPPH) scavenging activity, metal chelating ability
	and lipid peroxidation inhibition (LPO), respectively. The <i>in vivo</i> effect of HWE on Nile
	tilapia was carried out by preparing HWE supplemented (1% & 0.5%) feed and fed tilapia
	fingerlings ad libitum (30 d) HWF with 0.5% supplementation significantly increased
	ingerings ad nortain (50 d). Hwe with 0.576 supplementation significantly increased
	(P<0.05) the CAT and SOD activity compared to 1% HWE supplementation and commercial
	(P<0.05) the CAT and SOD activity compared to 1% HWE supplementation and commercial diet.
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F0014	 Insertings ad normal (50 d). HWD with 0.5% supportentation significantly increased (P<0.05) the CAT and SOD activity compared to 1% HWE supplementation and commercial diet. Short-Term Effect of Alginate-Biochar Microbeads in Corn Germination Murilo T. Domingues, Carolina C. Bueno, Leonardo F. Fraceto, Juan C. Loyola-Licea, and Andr éH. Rosa Universidade do Estado de S ão Paulo – UNESP <i>Abstract</i>—Biochar is the solid by-product of biomass pyrolysis. It is a promising soil conditioner and can be a material with high aggregate economic value, since its performance can improve plant's nutrient utilization and reduce the usage of conventional fertilizers. Biochar can be used in the formulation of new types of fertilizers as polymeric microbeads. These microbeads can be enriched with biochar and nutrients in its matrix to form fertilizers of slow release of nutrients. Thus, as a promising agricultural material, it is important to assess the environmental hazards caused by the implementation of these microbeads. In this context, seeds were sown in a soil-less Petri dish with microbeads produced with biochar from sugarcane enriched with or without phosphate. The seeds germination and its vitality were evaluated by the first germination count (FGC) and the germination speed index (GSI). The short-term effects showed that the microbeads, in general, assessed by the means of FGC, GSI and mass gain showed the best performance, suggesting that the environment created by these material and physical interaction with the ambruaria encorement.
F0014	 Ingering's additional (50 d). Hive with 0.5% supplementation significantly included (P<0.05) the CAT and SOD activity compared to 1% HWE supplementation and commercial diet. Short-Term Effect of Alginate-Biochar Microbeads in Corn Germination Murilo T. Domingues, Carolina C. Bueno, Leonardo F. Fraceto, Juan C. Loyola-Licea, and André H. Rosa Universidade do Estado de São Paulo – UNESP <i>Abstract</i>—Biochar is the solid by-product of biomass pyrolysis. It is a promising soil conditioner and can be a material with high aggregate economic value, since its performance can improve plant's nutrient utilization and reduce the usage of conventional fertilizers. Biochar can be used in the formulation of new types of fertilizers as polymeric microbeads. These microbeads can be enriched with biochar and nutrients in its matrix to form fertilizers of slow release of nutrients. Thus, as a promising agricultural material, it is important to assess the environmental hazards caused by the implementation of these microbeads. In this context, seeds were sown in a soil-less Petri dish with microbeads produced with biochar from sugarcane enriched with or without phosphate. The seeds germination and its vitality were evaluated by the first germination count (FGC) and the germination speed index (GSI). The short-term effects showed that the microbeads, in general, assessed by the means of FGC, GSI and mass gain showed the best chemical and physical interaction with the embryonic axes.
F0014 F0019	 Ingering's ad normal (50 c). Here with 0.5% supplementation significantly included (P<0.05) the CAT and SOD activity compared to 1% HWE supplementation and commercial diet. Short-Term Effect of Alginate-Biochar Microbeads in Corn Germination Murilo T. Domingues, Carolina C. Bueno, Leonardo F. Fraceto, Juan C. Loyola-Licea, and André H. Rosa Universidade do Estado de São Paulo – UNESP <i>Abstract</i>—Biochar is the solid by-product of biomass pyrolysis. It is a promising soil conditioner and can be a material with high aggregate economic value, since its performance can improve plant's nutrient utilization and reduce the usage of conventional fertilizers. Biochar can be used in the formulation of new types of fertilizers as polymeric microbeads. These microbeads can be enriched with biochar and nutrients in its matrix to form fertilizers of slow release of nutrients. Thus, as a promising agricultural material, it is important to assess the environmental hazards caused by the implementation of these microbeads. In this context, seeds were sown in a soil-less Petri dish with microbeads produced with biochar from sugarcane enriched with or without phosphate. The seeds germination and its vitality were evaluated by the first germination count (FGC) and the germination speed index (GSI). The short-term effects showed that the microbeads, in general, assessed by the means of FGC, GSI and mass gain showed the best performance, suggesting that the environment created by these materials provided the best chemical and physical interaction with the embryonic axes. Potential of Green Banana as Biodegaradable Packaging Films
F0014 F0019	 Ingerinings and informit (50-6). HWE with 0.5% supprementation significantly intereased (P<0.05) the CAT and SOD activity compared to 1% HWE supplementation and commercial diet. Short-Term Effect of Alginate-Biochar Microbeads in Corn Germination Murilo T. Domingues, Carolina C. Bueno, Leonardo F. Fraceto, Juan C. Loyola-Licea, and Andr éH. Rosa Universidade do Estado de S ão Paulo – UNESP <i>Abstract</i>—Biochar is the solid by-product of biomass pyrolysis. It is a promising soil conditioner and can be a material with high aggregate economic value, since its performance can improve plant's nutrient utilization and reduce the usage of conventional fertilizers. Biochar can be used in the formulation of new types of fertilizers as polymeric microbeads. These microbeads can be enriched with biochar and nutrients in its matrix to form fertilizers of slow release of nutrients. Thus, as a promising agricultural material, it is important to assess the environmental hazards caused by the implementation of these microbeads. In this context, seeds were sown in a soil-less Petri dish with microbeads produced with biochar from sugarcane enriched with or without phosphate. The seeds germination and its vitality were evaluated by the first germination count (FGC) and the germination speed index (GSI). The short-term effects showed that the microbeads, in general, assessed by the means of FGC, GSI and mass gain showed the best performance, suggesting that the environment created by these materials provided the best chemical and physical interaction with the embryonic axes. Potential of Green Banana as Biodegaradable Packaging Films Z. A. Nur Hanani, N. R. Jasny, and N. Abdul Halim

	<i>Abstract</i> —This study investigated the properties of green banana films as potential packaging films. Banana films from green banana (with concentrations 2-10% w/w) were prepared by using casting method. The mechanical properties (tensile strength (TS), elongation at break (EAB) and Young's modulus), water vapor permeability (WVP), and solubility of films were determined. TS and Young's modulus of banana films improved (P < 0.05) when the concentration of banana increased. However, WVP of the films inreased (P < 0.05) when the concentration increased from 2-6% with solubility of films decreased (P < 0.05). Concentration of banana used gave affect to the mechanical and barrier properties of films obtained.
F0026	Drying Characteristics of Lemongrass in Solar Assisted Chemical Heat Pump Dryer Mustafa Fadhel Sur University College
	<i>Abstract</i> —An experimental study was performed to investigate the drying characteristics of lemongrass in solar assisted chemical heat pump dryer under the meteorological Malaysian conditions. A solar assisted chemical heat pump dryer has been designed, and built. The system located on the roof top of a three-storey building at the National University of Malaysia (Universiti Kebangsaan Malaysia). It consists of four main components: solar collector (evacuated tubes type), storage tank, solid-gas chemical heat pump and dryer chamber. Three representative days for sunny, cloudy and semi-cloudy were presented, and two air drying speeds (1m/s, and 3 m/s) have been investigated. The weight was recorded on personal computer at 5 minutes intervals, and about 65 g of fresh lemongrass was dried from average initial moisture content of 9.1 db to an average final moisture content of 0.36 db. The solar assisted chemical heat pump dryer system for agriculture products is superior to the conventional solar dryers, as it can be operated at low temperature and relative humidity.
F3003	Development of Method to Produce Snacks Supplemented with Brewer'S Spent Cassava Ho Phu Ha , Luong Hong Nga, Tu Viet Phu, To Kim Anh, and Wolfgang Tosch Hanoi University of Science and Technology
	Abstract—Brewer's spent cassava (BSC) generated from beer production using high quality cassava flour is a rich source of fiber and other nutrients. Extruded snack products are predominantly made from cereal flour or starches and tend to be low in protein and fiber with little nutritional value. A new type of snack foods, which are supplemented by BSC, would provide the consumers with more fibre, low energy, more digestible and at an affordable price. The aim of this study is to incorporate BSC into extruded snack at a reasonable level and to determine the technical parameters to ensure the quality of snacks. BSC flour was added at different ratio of the base ingredients weight. The extrusion process was carried out using a twin-screw extruder. A commercial snack made by extrusion process from corn and rice flour with defined physicochemical properties was used as desirable target for optimization. Effect of levels of BSC and other processing parameters were studied on the qualities of the snacks. At certain levels of supplemented CSB no significant change of the snack quality were found. This result suggested the potential of incorporating BSC into food to make a new brand of snacks.
F4001	Small Scale Sustainable Farming Activities in the United Arab Emirates: the Case of the East Coast of the UAE Saif Al Qaydi

UAE University

Abstract—Farming activities constitute one of the main economic activities in the East Coast (EC) of the United Arab Emirates. Historically, the area was known as the fruit basket of the UAE, producing mainly mangos, dates, and bananas. In recent years, with the increasing population growth rate, sustainable farming has become a major challenge to EC farmers. The aim of this paper is to discuss the dilemma of these farmers; On the one hand, they cannot stop farming because they are attached to their farmland. On the other hand, the harsh farming environmental conditions in which they live require heavy use of modern types of fertilizers and pest control. This paper argues for the need to use sustainable farming methods to continue the farming activities with an eye on the environment. As part of the field study, personal interviews were conducted and feedback from the farmers was discussed. The conclusions point towards the need to continue farming activities in order for the country to meet the growing demand on farm crops and the importance of ensuring financial support to the local farmers to allow them to meet that demand while preserving the environment.

3:20pm-3:40pm

Coffee Break

Afternoon, November 13, 2014 (Thursday)

SESSION–3 (ICFAS&ICMEB 2014 2nd)

Venue: Gladstone Room Session Chair: Dr. Kelvin Kian Loong Wong Time: 3:40pm-5:30pm

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F0004	Anti-Inflammation and Anti-Infection Applicability of Tremella Flava Chen Fermented				
	Soymilk (TFS) in A BALB/c Mice Model				
	Tai-I Chen, I-Chuan Sheih, Huei-Yann Jeng, and Tony Fang				
	National Chung Hsing University				
	Abstract-Tremella flava Chen, a novel yellow jelly and edible mushroom, was isolated in				
	Taiwan. The objective of this study was to evaluate potential adverse effects, if any, of T.				
	flava-fermented soymilk (TFS) and the influence of oral treatment of mice with the soy				
	product on clinical isolate Salmonella Typhimurium NJ08.124 infections in BALB/c mice.				
	After consecutive administration of TFS to mice for 28 days, most anti-inflammatory				
	cytokines (IL-6 and IL-10) were increased significantly, while pro-inflammatory cytokines				
	(IL-2 and IFN- γ) decreased significantly as the dosage of TFS increased. These results showed				
	that TFS-treated mice had immuno-regulatory effects towards induced inflammation in				
	splenocytes. In addition, the TFS also reduced the infection rate of Salmonella significantly,				
	suggesting that TFS may have enhanced macrophage activity, reduced pathogen numbers, and,				
	therefore, reduced fecal shedding in the T-S group compared to the infection group. These				

	results demonstrated that TFS might be a new, natural alternative for use as an anti-infection
	and anti-inflammation agent in the future.
M0001	Visualizing Protein Structures in Virtual Interactive Interface
	Kamran Ahsan and Muhammad Shahzad
	Federal Urdu University of Arts, Science & Technology, Pakistan
	<i>Abstract</i> —In biomedical data set, macromolecular structures such as DNA and proteins have huge multifaceted bio molecular units containing many atoms and residues in big strands of amino acids. From the few decades, different visualizations techniques have been introduced to display these data sets by using several software tools such as Kinemage. Every type of former representation ranging from primary structure to quaternary structure have certain inadequacy that limits the scientists to examining the protein interaction because of protein's size and complexity. Comparing these type different representations helps researchers in their investigation of relationships between structures and functions of protein. This paper studies the major needs for virtual intelligent environment and elaborates the high performance simulation service for bio molecular visualization.
M0007	Momordica charantia Fruit Extract Improvesubcellular Changes in Cardiovascular Tissues of
	Diabetic Rats
	Kazii Adas, Srijit Das and Zar i nent
	Universiti Kebangssan Malaysia, Malaysia
M0008	<i>Abstract</i> —Type 1 Diabetes mellitus (T1DM) or insulin deficiencies lead to the development of diabetic cardiovascular complications, due to the imbalance between oxidative stress and anti-oxidants. The present descriptive study focusedon the effect of <i>Momordica charantia</i> (<i>MC</i>) fruit extract in the cardiovascular tissue of streptozotocin-induced diabetic rats. A total of 30 adult male Sprague-Dawley rats were used and equally divided into five groups (n=6); Control group (Ctrl), control group treated with <i>MC</i> (Ctrl + <i>MC</i>), DM untreated group (DM), DM group treated with <i>MC</i> (DM + <i>MC</i>) and DM group treated with metformin 150g/kg (DM + Met). Diabetes was induced in rats by a single intramuscular injection of streptozotocin (STZ) 60mg/kg of body weight. <i>MC</i> fruit extract 1.5g/kg was used for this study. Following four weeks of STZ induction, the treatment was started and continued for 28 days. At the end of the study, the rats were sacrificed; cardiac and aortic tissues were observed in DM + <i>MC</i> group. In conclusion, oral administration of <i>MC</i> fruit extract improved subcellular changes in cardiovascular tissues of diabetic rats.
M0008	Development of hairy root culture of Andrographis paniculata for in vitro adrographollide
	production Frly Marwani Dian Pratiwi Karlina Wardhani and Rizkita Esvanti
	School of Life Sciences and Technology Institute of Technology Bandung Indonesia
	2
	<i>Abstract</i> —Development the hairy root culture of <i>A. paniculata</i> was conducted for growing the hairy roots and production of andrographollide. Different strains of <i>Agrobacterium rhizogenes</i> (R-1000, A4, ATCC 15834), different types of explants (cotyledons, hypocotyls, and leaves) and different infection time of <i>A. rhizogenes</i> (1, 2, 3 days) were tested to induce hairy roots of <i>A. paniculata</i> . The results indicated that the best strain, type of explants and infection time for hairy roots induction were found in strain ATCC 15834, the explants of cotyledon and the 2

	days of infection, respectively. The best medium for growing the hairy roots was liquid half
	strength MS medium with the addition of 5.0 µM IBA. The highest amount of
	and rographollide was observed in the medium with the addition of 5.0 μ M IBA on the week
	of two, as much as 0.54%. Integration of T-DNA of A. rhizogenes in hairy roots was
	confirmed by polymerase chain reaction (PCR) analysis with specific primer for rolA and
	rolC genes of the plasmid. Visualization of the PCR products on agarose gel electrophoresis
	showed two fragments with lengths of 248 bp and 490 bp which corresponds to rolA and rolC
	genes from Ri plasmids of ATCC 15834.
M0013	Invitro Studies on the Modulation of P-glycoprotein Mediated Intestinal Efflux of Oral
	Antidiabetic Drugs
	Ravneet Grewal and Maninder Channa
	Panjab University, Chandigarh, India
	Abstract-P glycoprotein (Pgp) is an intestinal transmembrane protein, an efflux transporter
	which is actively involved in extruding the oral drugs and interfere with the bioavailability of
	drug: thus intervening the efficacy of oral drug therapy. In the present study, the everted gue
	sac method was used to analyse the P-glycoprotein mediated intestinal secretion of oral
	antidiabetic drugs viz rapid acting secretagogue i.e. nateglinde and sulfonvlurea
	(glibenclamide) in the presence of its modulators i.e. veranamil and tamovifen Dudoneum
	(ghoeneralinde), in the presence of its modulators i.e. verapatin and tamoxiten. Dudohedin, ileum and colon everted sacs were prepared from rooster intesting and were incubated with
	voranamil and temovifon for 60 ² for an adaquate gut say visibility as determined by
	verapainin and tamoxinen for 60 for an adequate gut sac viability as determined by
	glucose-oxidase peroxidase assay at 505 nm. The invitro modulation of P-gp was assessed in
	intestinal tissue and serosal fluid collected from gut sacs using high performance liquid
	chromatography (HPLC). The serosal transfer of nateglinde i.e. rapid acting secretogogue was
	enhanced after its incubation with verapamil in duodenum and ileal tissues. However,
	nateglinide accumulation in intestinal tissue was markedly reduced in the presence of
	tamoxifen. Additionally, the glibenclamide accumulation was increased in duodenum in the
	presence of verapamil but the drug concentration was reduced effectively when
	co-administered with tamoxifen. However, no significant modulation of P-gp activity was
	observed in ileal tissue under these conditions. These findings suggest the verapamil, a
	competitive modulator for oral antidiabetic drugs i.e. nateglinide and glibenclamide for
	mucosal P-glycoprotein. The present findings also suggest the significance of P-gp mediated
	efflux in the intestinal secretion of netaglinde.
M0018	Comparing Contribution of Algorithm Based Physiological Indicators for Characterisation of
	Driver Drowsiness
	Manuel Rost, Eugene Zilberg, Zheng Ming Xu, Yue Feng, David Burton, and Sara Lal
	Compumedics Medical Innovation Pty Ltd, 30-40 Flockhart St Abbotsford 3067 Australia
	Abstract—The algorithm based physiological characteristics of driver drowsiness - ocular
	parameters (derived from the frontal electroencephalogram (EEG)), EEG alpha bursts and
	spectral power (derived from the central and occipital sites) as well as heart rate variability
	(HRV) were estimated from data derived during a driving simulator experiment (30)
	non-professional drivers). The statistical associations of these parameters with the "gold
	standards" of driver drowsiness were investigated using linear regression and linear mixed
	models. The statistical models were also examined for a number of hybrid algorithms, which
	combined multiple characteristics of driver drowsiness. A combination of ocular parameters
	comoned multiple enalucensities of univer unowsiness. A comonation of ocular parameters

	showed the strongest association ($R^2=0.48$) with the applied trained observer rating (TOR) method; followed by EEG alpha bursts indicators ($R^2=0.30$) and EEG spectrum data ($R^2=0.21$). The HRV parameters showed a weak association ($R^2=0.04$) A joint model including the eye parameters and the EEG alpha bursts resulted in the highest $R^2=0.54$ to TOR. The results indicate that a hybrid automatic algorithm, based on multiple characteristics of the eye
	blinks and EEG patterns, but not necessarily including the HRV measures, is likely to achieve
M0020	a level of accuracy in characterising driver drowsiness similar to that of a trained observer.
10020	and Finite Volume Calculations
	Nico Heussner and Wilhelm Stork
	FZI Forschungszentrum Informatik/ESS, Karlsruhe, Germany
	<i>Abstract</i> —A tool chain is presented which allows an estimation of the danger a laser source can pose to the human eye. It makes use of a ray tracing approach to define the spot positions and diameters within the eye. This information is then used to calculate the temperature and likelihood of damage via Finite Volume Method (FVM) calculations. Therefore a previously developed computer model of the human eye is incorporated which allows to determine the thermal behaviour over time as well as tissue damage. The method is exemplarily demonstrated for a scanning laser device and the influence of the accommodation state on the ocular hazard is pointed out.
M0027	The Cardiovascular and Respiratory Responses to CO_2 under Hyperventilation and Posture
	Change in Parkinson's Patients Shyan-Lung Lin Andy Ving-Chi Liao and Shoou-Jeng Yeh
	MingDao University. Taiwan
	<i>Abstract</i> —In this paper, study is focused on patients with autonomic dysfunction, such as Parkinson's disease, and how the interaction between cerebral autoregulation and ventilatory control is affected under hyperventilation and posture changes. Experiments were designed with 13 healthy youth subjects, 10 healthy elder subjects, and 13 subjects with Parkinson's disease (PD) to acquire cardiovascular and respiratory signals during supine, head-up tilt (HUT), and hypocapnia. Signal processing is performed to obtain the end-tidal partial pressure of carbon dioxide (P_{ETCO2}) throughout the hypocapnic range and their corresponding cardiovascular and respiratory signals, including mean systolic blood pressure (MSBP), mean arterial blood pressure (MABP), mean heart rate (MHR), mean breathing rate (MBR), and mean cerebral blood flow velocity (MCBFV). Analysis was further achieved to study the variations in parameters to changes in P_{ETCO2} and to depict their variation over time. The results of the different analysis all pointed to suggesting that although Parkinson's patients still retain some form of cerebral auto-regulation, they do not have the range of blood flow regulation that a healthy subject does and reactivity to CO2 is limited to a smaller range.
M1005	Vasa Vasorum Angiogenesis through Increased Levels of H_2O_2 , HIF-1 α , NF- κ B and INOS: In
	vivo Suudy of Atheroscierosis Titin A. Wihastuti Dianggan Sargowo Setvawati Soeharto Teuku Heriansvah Grace R
	Widyasih
	Brawijaya University, Indonesia
	Abstract—This study aims to determine the increased of vasa vasorum angiogenesis through

	H ₂ O ₂ , HIF-1a, NFkB and iNOS pathways in Wistar strain of <i>Rattus novergicus</i> given HFD.
	This research is a true experimental laboratory, with in vivo approach to post-test with control
	group, using 24 males wistar strain of Rattus novergicus, 8 weeks of age, were divided into 6
	groups. Those animal model was given HFD serially for 1,3 and 5 months. Each series
	contained a control group with normal diet (ND). The parameter in this study are H_2O_2
	measured by colorymetric: NFkB, iNOS and HIF-1 α were measured using double staining
	imunofluoresence which was observed with CLSM (Confocal Lasser Scaning Microscope) in
	a artic smooth muscle cells: vasavasorum angiogenesis were measured from VEGER1 levels in
	artic tissue and confirmed by HE staining for anatomical and historiathological verification
	The results of ANOVA analysis nath analysis and Pearson correlations showed that HED
	affect the vasa vasorum angiogenesis through H.O. NEKB and iNOS in wister strain of <i>Pattus</i>
	aneet the vasa vasorum angiogenesis through H_2O_2 , with and invois in wistar strain of Kallas non-argiques ($p < 0.05$). The data show that NEkB plays greater role in regulating inflammation
	<i>novergicus</i> ($p < 0.05$). The data show that NFKB plays greater fole in regulating inflammation and offset uses uses much specific static st
	from the set of NOS on levels of VECEP 1 that is creater than the set of UE 1. The
	from the role of finds on levels of VEGFR-1 that is greater than the role of HIF-1 α . The
	conclusion of this study is the vasa vasorum angiogenesis is more dominantly influenced by
	inflammatory conditions.
M1009	Antioxidant Activity of the Sea Bird Nest (<i>Eucheuma cottonii</i>) and Its Radical Scavenging
	Effect on Human Keratinocytes
	Chooi Ling Lim, Rhun Yian Koh, Tatt Yhew Haw and Laura A. Boudville
	International Medical University, Malaysia
	Abstract-The potential of Eucheuma cottonii (EC) to be a novel source of antioxidants and
	protection against photoageing is increasingly evident but largely unexplored. This study
	aimed to evaluate the antioxidant activity and radical scavenging capacity of EC extracts on
	human keratinocytes. Aqueous and methanol extracts from EC were evaluated in a series of in
	vitro assays on the HaCaT keratinocyte cell line. Antioxidant activity was determined via the
	DPPH assay, while MTT was used to evaluate the cytotoxicity of EC extracts up to 72h
	exposure. Quantitative and qualitative DCFH-DA fluorescence assays assessed intracellular
	reactive oxygen species (ROS) levels in UV-irradiated cells. EC extracts at concentrations
	from 10 μ g/ml were found to possess significant antioxidant activity (p<0.05). Interestingly,
	the aqueous extract compromised cell viability at high concentrations, while the methanol
	extract was relatively non-toxic. Intracellular ROS levels significantly decreased with
	increasing concentration of EC extract treatment ($p<0.05$). In conclusion, EC extracts
	demonstrated antioxidant activity and protective effects against UV-induced ROS
	degeneration in keratinocytes thus underlining its potential in nutraceutical research to
	promote skin rejuvenation
M0030	A Comparative Evaluation on the Setup Errors of the Chet Guidance System and the Optical
10050	Positioning System
	Hon Zhou, Lie Zhong, Yun Co, Ying Chon, Hongfong Zhoo and Kalvin Kion Loong Wong
	The University of Western Australia
	The University of western Australia
	Abstract DumonouTo commons the clinical residianing among functions extend to the strate of
	Abstract—Purpose: To compare the clinical positioning error of patient setup between the cone
	beam computed tomography (CBC1) guidance system with Optical Positioning System
	(OPS), and to evaluate the OPS, a novel approach of patient positioning.
	Materials and Methods: A phantom which was pasted Six IR sensitive markers. A phantom as
	a virtual patient was positioned using CBCT guidance system and OPS. We measured setup

errors in left-to-right (LR) and anterior-to-posterior (AP) directions by a vernier caliper on a graph paper on Varian Linear accelerator, and then we shifted the couch height to make the source-to-surface distance (SSD)=100cm and recorded the height change which was displayed on a monitor screen as the setup error in inferior-to-superior (IS) direction.

Results: Average setup errors for the CBCT guidance system were 0.42mm, 0.50mm,and0.66mm in LR, IS and AP directions, respectively; the root-mean-squares (RMS) of it were 0.24mm, 0.00mm and 0.52mm in LR, IS and AP directions, respectively. The OPS has an average setup error of 0.28mm, 0.40mm and 0.30mm in LR, IS and AP directions and a SD of 0.08mm, 0.10mm and 0.07mm in LR, IS and AP directions, respectively.

Conclusion:OPS can perform a better setup of precise radiotherapy. OPS shows a comparable, fast and efficient positioning method compared to CBCT guidance system, and lives up to the actual need and will have a wide use in clinical application.

6:00pm

Dinner



November 14, 2014 (Friday) Academic Official Visit

9:00am-11:00am National Institute of Water and Atmospheric





2:30pm-4:30pm The University of Auckland



Academic Visiting to Chemical and Materials Engineering Department-The University of Auckland

Field 1 – Agriculture and nutrient

Optimization of struvite recovery from wastewater

Equipment: fermenter, XRD, FTIR

Field 2 - Food technology

- 1. Pasteurization of beer
- 2. Power Ultrasound and High Pressure Processing Inactivation of Microbial Spores (beef and honey)

Equipment: Pulsed Electric Fields (PEF), High Pressure Processing (HPP), and Power Ultrasound

Field 3 – Milk technology

1. Novel method to differentiate good and poor dispersibility of milk powder

Equipment: Malvern, Hyperspectral imaging, Viscometer, Electronic Resistance Tomography

Field 4 – Biofuel

1. Biogas production from radiata pine chips

Equipment: high pressure wet-oxidization reactor

Field 5 – Coffee making

1. Optimisation of Coffee Roasting

Equipment: Coffee Roaster, Hyperspectral imaging etc.

Please note that Academic Official Visit is for the one has registered for it. (Please note that the departure time will be 9:00am, please kindly arrive at the hotel before 9:00am, we will depart on time. Thank you for your cooperation!) Welcome to register for the academic visit.

Conference venue

Auckland Rose Park Hotel

www.aucklandroseparkhotel.co.nz



Board Room

Rose Room



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Rachael Bell Reservations and Conference Manager Phone Number: 09 377 3619 Email: rachael.bell@aucklandroseparkhotel.co.nz

APCBEES FORTHCOMING CONFERENCES

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

DATE		NAME	PUBLICATION
	ICFEE 2015	2015 5th International Conference on Future	Journal of Clean Energy
lan 24-25 2015		Environment and Energy	Technologies (JOCET, ISSN:
Tainei Taiwan		http://www.icfee.org/	1793-821X)
raipol, rainair		2015 5th International Conference on Bioscience,	Volume of Journal (IPCBEE
Submission before	ICBBB 2015	Biochemistry and Bioinformatics	ISSN: 2010-4618)
November 15.		http://www.icbbb.org/	
2014		2015 4th International Conference on Climate	APCBEE Procedia (Journal
	ICCCH 2015	Change and Humanity	under Elsevier, ISSN:
		http://www.iccch.org/	2212-6708)
		2015 International Conference on Geological	International Journal of
Eeb 08-09 2015	ICOGE 2015	Engineering	Geological Engineering (IJGE,
Rangoon Burma		http://www.icoge.org/	ISSN: 2301-3818)
Rangoon, Buima		2015 International Conference on Environment and	Journal of Environmental
Submission before	ICERE 2015	Renewable Energy	Science and Development
November 25		http://www.icere.org/	(IJESD, ISSN:2010-0264)
2014		2015 International Conference on Food and	International Journal of Food
2011	ICFES 2015	Environmental Sciences	Engineering (IJFE, ISSN:
		http://www.icfes.org/	2301-3664)
		2015 6th International Conference on	Journal of Environmental
Eab 14 15 2015	ICESD 2015	Environmental Science and Development	Science and Development
Amstordam		http://www.icesd.org/	(IJESD, ISSN:2010-0264)
Netherlands		2015 5th International Conference on Chemistry	International Journal of
Homonando	ICCCP 2015	and Chemical Process	Chemical Engineering and
Submission before		http://www.chees.org/events/	Applications (IJCEA,
November 30			ISSN:2010-0221)
2014		2015 4th International Conference on Clean and	Journal of Clean Energy
	ICCGE 2015	Green Energy	Technologies (JOCET, ISSN:
		http://www.iccge.org/	1793-821X)
			International Journal of Food
Mar. 10-11, 2015,		2015 6th International Conference on Food	Engineering (IJFE, ISSN:
Seoul,South Korea	ICFEB 2015	Engineering and Biotechnology	2301-3664); Journal of Medical
		http://www.icfeb.org/	and Bioengineering (JOMB,
Submission before			ISSN: 2301-3796)
November 20,	r 20, ICBET 2015	2015 5th International Conference on Biomedical	Volume of Journal (IPCREE
2014		Engineering and Technology	ISSN: 2010-4618)
		http://www.icbet.org/	10010. 2010 4010)

	ICEII 2015	2015 5th International Conference on Environment and Industrial Innovation http://www.iceii.org/	International Journal of Innovation, Management and Technology (IJIMT, ISSN: 2010-0248); International Journal of Environmental Science and Development (IJESD, ISSN:2010-0264)
Mar. 19-20, 2015, Florence, Italy	ICCBS 2015	2015 2nd International Conference on Chemical and Biological Sciences http://www.iccbs.org/	InternationalJournalofChemicalEngineeringandApplications(IJCEA,ISSN:2010-0221);InternationalJournalofBioscience,Biochemistry and Bioinformatics(IJBBB, ISSN: 2010-3638)
November 30, 2014	ICCUE 2015	2015 2nd International Conference on Civil and Urban Engineering http://www.iccue.org/	International Journal of Engineering and Technology (IJET, ISSN:1793-8236)
	ICFSN 2015	2015 2nd International Conference on Food Security and Nutrition http://www.icfsn.org/	Volume of Journal (IPCBEE, ISSN: 2010-4618)
	ICCOE 2015	2015 2nd International Conference on Coastal and Ocean Engineering http://www.iccoe.org/	Journal of Environmental Science and Development (IJESD, ISSN:2010-0264)
Apr. 6-7, 2015, Kyoto, Japan Submission before November 20, 2014	ICCFE 2015	2015 2nd International Conference on Chemical and Food Engineering http://www.iccfe.org/	International Journal of Chemical Engineering and Applications (IJCEA, ISSN:2010-0221); International Journal of Food Engineering (IJFE , ISSN: 2301-3664)
2014	ICBAE 2015	2015 International Conference on Biotechnology and Agriculture Engineering http://www.icbae.org/	Journal of Advanced Agricultural Technologies (JOAAT, ISSN:2301-3737); Journal of Medical and Bioengineering (JOMB, ISSN: 2301-3796)
Apr. 24-25, 2015, Istanbul,Turkey	ICESE 2015	2015 5th International Conference on Environment Science and Engineering http://www.icese.org/	Volume of Journal (IPCBEE, ISSN: 2010-4618)
Submission before December 5, 2014	ICLST 2015	2015 5th International Conference on Life Science and Technology http://www.iclst.org/	Journal of Life Sciences and Technologies (JOLST, ISSN: 2301-3672)

			International Journal of Food
	ICBFS 2015	2015 5th International Conference on Biotechnology and Food Science	Engineering (IJFE , ISSN: 2301-3664); Journal of Medical
		http://www.icbfs.org/	and Bioengineering (JOMB, ISSN: 2301-3796)
		2015 International Conference on Chemical	Advanced Materials Research
	ICCMP 2015	Materials and Process	(ISSN: 1022-6680)
May. 12-13, 2015		http://www.iccmp.org/	
Warsaw, Poland		2015 2nd International Conference on Biomedical	The Journal of Medical and
	ICBPE 2015	and Pharmaceutical Engineering	Bioengineering(JOMB, ISSN:
Submission before		http://www.icbpe.org/	2301-3796)
January 1, 2015		2015 International Conference on Food and	The Journal of Advanced
	ICFAE 2015	Agricultural Engineering	Agricultural Technologies
		http://www.icfae.org/	(JOAAT, ISSN:2301-3737)
		2015 6th International Conference on	International Journal of Applied
	ICEST 2015	Environmental Science and Technology	Environmental Sciences (ISSN:
May. 23-24, 2015		http://www.icest.org/	0973-6077)
Singapore		2015 7th International Conference on	Information and Communication
	ICBBT 2015	Bioinformatics and Biomedical Technology	Technologies (ISSN:
Submission before		http://www.icbbt.org/	1743-3517)
January 10, 2015		2015 4th International Conference on Petroleum	the Journal of Industrial and
	ICPIE 2015	Industry and Energy	Intelligent Information (JIII,
		http://www.icpie.org/	ISSN: 2301-3745)
		2015 4th International Conference on Chemical and	International Journal of
		2013 4th International Conference on Chemical and	Chemical Engineering and
hun 45 40 0045	ICCFE 2015	http://www.icopo.org/	Applications (IJCEA,
Jun. 15-16, 2015, Madrid Spain		http://www.iccpe.org/	ISSN:2010-0221)
Mauriu, Spairi		2015 4th International Conference on Environment,	Volume of Journal (IDCREE
Submission before	ICEEB 2015	Energy and Biotechnology (ICEEB 2015)	Volume of Journal (IFCBEE,
Submission before		http://www.iceeb.org/	1001N. 2010-4010)
rebluary 5, 2015		2015 5th International Conference on Asia	Journal of Advanced Agricultural
	ICAAA 2015	Agriculture and Animal (ICAAA 2015)	Technologies (JOAAT ISSN:
		http://www.icaaa.org/	2301-3737)

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Note	