

# RMC Bulletin

Accelerating Excellence through Research and Innovation



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## Foreword from the President Professor Dr. Zulkifli Abdul Hamid

*The 'RMC Bulletin' is an effort by Research Management Centre (RMC) to document the enormous array of important research-related events held in 2011. Last year witnessed many research and development activities in KLIUC.*

With RMC Roadshows as a kick start of the year, RMC has motivated many researchers to submit their proposals for grant application from the internal and external funding bodies.

Three publications by RMC, namely the Research and Consultancy Policy, the RMC Directory of Expertise, and the Research e-Abstract 2011 followed to support this effort.

The Research and Consultancy Policy serves as a clear guideline for the researchers to embark on research and consultancy activities, while the RMC Directory of Expertise is a way of extending our hands to industries

and to share our expertise with the world, as everybody who requires services from these experts can browse the listing of all research activities that includes areas of expertise and subject disciplines according to schools in KLIUC. Research e-Abstract 2011, a collection of valuable research abstracts for papers presented or published from 2005 to 2011, was also successfully published and serves as a platform to commercialize the KLIUC's intellectual assets.

The first KLIUC Innovation and Invention Competition 2011 (KIIC 2011), held on 20th December 2011 with the theme "Explore-Innovate-

Invent-Solve" marks the end of RMC activities for the year. The competition served as a screening process before the products are showcased at the national and international levels.

Since this bulletin is the premiere issue and is the first high-gloss publication dealing with research activities, it is earnestly hoped that it will motivate all academic, non-academic staff and students of KLIUC to feel the spirit of research culture that will benefit the society, improve the quality of life and subsequently enhance the socio economic well-being of the nation. ●

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# EDITORIAL note



*Research Management Centre (RMC) is proud to be instrumental in bringing to you the inaugural issue of the RMC Bulletin. This issue of the Bulletin reflects the diversity of RMC's responsibilities, interests and activities.*

The bulletin is distributed internally annually with the intention of reaching out to Kuala Lumpur Infrastructure University College's community readership.

Research Bulletin takes a strong focus on the university's mission and vision, programs and activities – to keep readership updated on the progress of the university's efforts in fostering interdisciplinary research.

We create an environment of discovery that fosters learning and rewards creativity. Our goal is to bring our ideas and our inventions to benefit the society and make life better.

The major contributors to this publication are volunteers who were willing to learn the ins and outs of producing and publishing this bulletin.

To the contributors, we would like to thank them for their efforts in realizing this publication.



# Roadshows to accelerate research journeys

Between the months of February and March 2011, the Director of Research Management Centre (RMC), Professor Dr. Roslan Zainal Abidin, Head of Research, Consultancy and Innovation Department., Assoc. Prof. Dr. Siti Maziha Mustapha together with the President of KLIUC, Professor Dr. Zulkifli Abdul Hamid, conducted roadshows to meet the academicians from all schools. The purposes of these roadshows were to inform and motivate the academic staff about the importance of research and consultancy, securing research grants and projects, and publishing research work.



Professor Dr. Roslan Zainal Abidin, and Assoc. Prof. Dr. Siti Maziha Mustapha giving the briefing.

The roles of RMC were also highlighted and staff was encouraged to consult RMC for matters regarding research and innovation. The Director of RMC, elaborated on research funds available that included:

- Fundamental Research Grant Scheme (FRGS);
- Exploratory Research Grants Scheme (ERGS);
- Long Term Research Grant Scheme (LRGS);
- Prototype Development Research Grant Scheme (PRGS);
- Research Incentives;
- Other funds from various organisations

The President, during the roadshows, encouraged all academicians to be more active in conducting research because it is important that KLIUC develops communities of scholars and academicians for the promotion of the general powers of the human mind, the search for truth and the development of knowledge specialists. It is hoped that KLIUC becomes a prime source of knowledge and innovation. ●



# RMC Policy

*The KLIUC Research and Consultancy Policy is based on the mission statement of the university, which reads: "KLIUC strives for excellence in various fields of infrastructure by providing education, disseminating knowledge, transferring technology and professional services to the industry and society, and both at national and international levels."*

The University recognises research and consultancy activities as a normal part of academic staff duties and expects all staff to be actively engaged in research. It is therefore the University's policy plays a role to encourage staff to engage in research and consultancy wherever appropriate and in a manner that is consistent with their contractual responsibilities.

The purpose of this policy is to provide a framework for the coordination of research funding applications and proposals submitted by faculty, staff and students to government agencies, foundations, community organizations and private companies. This policy also sets out the framework within which academic staff at the university will carry out their research and consultancy obligation, and in which graduate students can engage and be supported in their research. With

respect to consultancy work, the policy aims to provide a flexible management framework to cover the range of consultancies while using the University's name, services, space, facilities, equipment or paid work time, including consultancies directed towards charitable purposes and community service.

Consultancy provides an important means of continuing education for the faculty and enhances their experience in their respective professional fields outside the context of the University itself. Though such attributes of consulting may make faculty better scholars and teachers, the employer-employee nature of the consulting process has in it the potential to add values to their primary activities and responsibilities. Therefore, one of the purposes of this policy on consultancy and related activities is to state with

clarity and generality the limits on such activities and the reasons for those limits. ●





# Directory of Expertise

*KLIUC has embarked on research actively since 2008 to prosper in scientific discovery and transforming the knowledge for the betterment of humankind to help the country to attain development which indirectly promotes wealth creation and societal well-being in line with our nation's vision. It is a continuous effort taken by KLIUC to contribute to nation building.*

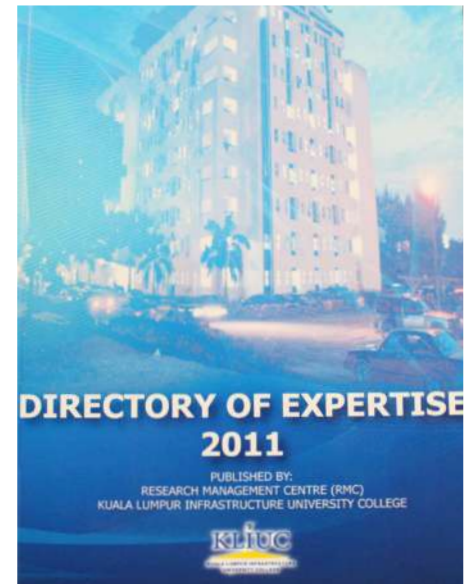
The experts in KLIUC come from various academic backgrounds who explore into research from various fields. RMC has taken the initiative to compile the experts' background and published the "Directory of Expertise" for the year of 2011. This is a way of showing our interest and lending our hands to the outside world mainly to the industries in sharing our expertise and also forming alliances of mutual benefit.

The "Directory of Expertise" includes the information on the field of specialization and contact details of our experts in all the six schools, which can be used as a reference tool. It also showcases the wide range of research expertise available in KLIUC, enabling identification of future research

ventures, as it allows the public to approach our experts for research, consultancies and advisory projects.

Besides that, this directory will also be useful for prospective students enrolling for Master and PhD to gain insight into the expertise available in order to choose their research topics and prepare proposals accordingly.

In conclusion, this "Directory of Expertise" was produced with the expectation of contributing to the community at large by tapping into KLIUC's resources for universal benefits. ●

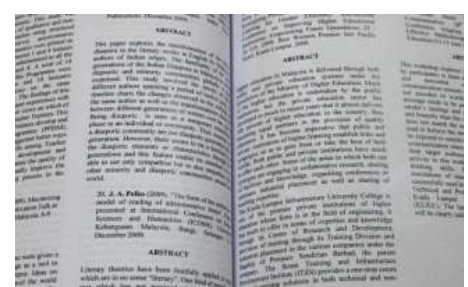
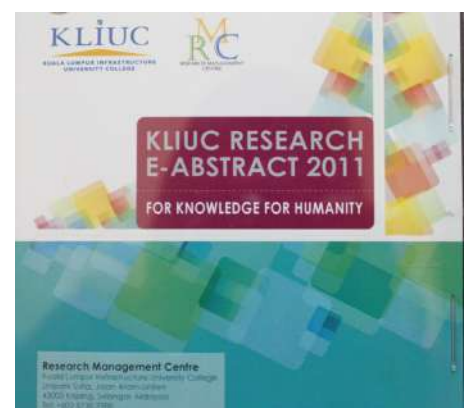


## KLIUC Research E-Abstract 2011

*KLIUC Research E-Abstract 2011 is an effort by RMC to compile abstracts produced by KLIUC academics which have been presented or published from the year 2005 until 2011.*

The objective of the publication is to share abstracts information with other higher academic institutions, government agencies, and private sectors in order to assist interested

parties to find out more about the research interests, findings and activities carried out by the KLIUC academic staff. In total there are 86 abstracts in the publication submitted by six schools in KLIUC which are School of Engineering and Technology Infrastructure, School of Architecture and Built Environment, School of Communication and Language Studies, School of Business Infrastructure, School of Information Technology Infrastructure, and School of Applied Science and Foundation Studies. ●



# KLIUC

## Internal Research Funding

*In the year 2011, KLIUC allocated the amount of RM106,834.00 to fund 16 researchers for their research projects. The two phase internal fund provided has played a big role to encourage the academic staff to start their research at the school level. Distribution of fund is listed in the following table:*

### Internal Funding Phase 1 / 2011

No	Title	Project Leader	Amount of Fund (RM)	School
1	Predicting Purchase Intention for Halal Cosmetic Products	Kamaljeet Kaur	6,167.00	SOBI
2	An Assessment on the Effectiveness of Accounting Education in Meeting the Needs of the Profession	Prof. Dr. Tengku Akbar Tengku Abdullah	10,000	SOBI
3	Communication Skills in Accounting Education: The Opinions of Practitioners, Educators and Graduates	Prof Dr. Juhari Samidi	10,000	SOBI
4	RFID Electrical Meter	Lai Tian Fat	10,000	SETI
5	Effectiveness of Passive Design Elements Installed in The Renovated Block B, KLIUC, Taman Ilmu Ikram.	Siti Noraini Ahmad	5,000	SABE
6	A Study Into Harvesting Ablution Water (Grey Water) for Recycling Use in Toilets and Other Non-Consumable Uses	Sr. Abdul Razak Abu Bakar	4,400	SABE
7	Nation branding: Public perception of the 1 Malaysia campaign	Assoc. Prof. Dr. Siti Maziha Mustapha	7,667.00	SCLS
8	Awareness and Readiness of Commercialisation among KLIUC's Researchers	Azman Ramlie	1,100	SCLS
9	Interlingual Interference of L1 (Arabic) on L2 (English) Syntactic Structures of Libyan EFL Students' Writing in the English Language	Suraya Amirrudin	2,500	SCLS
10	Relationship between Interactions-Based Diversity and Intercultural Sensitivity Among Undergraduate Students	Norzita Yunus	5,000	SCLS
11	Integrating Facebook As A Communication Tool to Support Language Learning and Teaching.	Zulkarnain Zakaria	4,000	SCLS
12	Kajian Keberkesanan Pelaksanaan Matapelajaran Wajib Universiti di IPTS di Persekitaran Putrajaya	Dr. Che Pee Saad	10,000	SASF
13	Factors that Determine Students' Preference in Selecting Higher Learning Institution.	Jaya Chitra Ramalu	5,000	SASF
14	The Effectiveness of Problem-Based Approach For Programming Course: Tertiary Education	Robiatul A'dawiah Jamaluddin	10,000	SITI
15	The Effectiveness of Social Network Application as an Educational Tools for Information Technology Students (Case Study on Facebook)	Suhaila Sardi	6,000	SITI
			96,834.00	

### Internal Funding Phase 2 / 2011

No	Title	Project Leader	Amount of Fund (RM)	School
1	The State and Role of Innovation, Productivity and Exports in Malaysian Manufacturing Industries	Vijayeswaren s/o Arumugam	10,000.00	SOBI

# KLIUC

## *External Research Funding*

*Throughout 2011, there was a concentrated effort to submit as many applications for various grant schemes as possible. RMC, with the support and hard work of the academics, has given our best shot in trying to secure the grants. KLIUC has submitted five (5) applications for Exploratory Research Grant Scheme (ERGS), seven (7) for Fundamentals Research Grant Scheme (FRGS), two (2) for Long-term Research Grant Scheme (LRGS) and two (2) for Prototype Development Research Grant Scheme (PRGS). The titles submitted for all grants are listed below:*

### *Exploratory Research Grant Scheme (ERGS 2011)*

No	Title	Project Leader	Amount of Fund (RM)	School
1	Communication Apprehension: A study of Malaysian University Students	Assoc. Prof. Dr. Siti Maziha binti Mustapha	112,150.00	SCLS
2	Effects of Confine Concrete on Structural Behaviour of Members Subjected to Static and Dynamic Effects	Prof. Dr. Kousay Abdul Aziz Ali	155,600.00	SETI
3	Dual Stack Firewall (IPv4/IPv6) in Detecting Invisible IPv6 Traffic Over IPv4 Network within Acceptable QoS.	Ir. Dr. A. RazakYaacob	200,000.00	SABE
4	Determinants of Business Students' Satisfaction with Quality Service in Public Higher Learning Institution in the Klang Valley.	Assoc. Prof. Dr. Noor Saadah binti ZainalAbidin	97,500.00	SOBI
5	Building Condition Assessment Tools for Sustainable Asset Management	Ir. Dr. Ch'ng Guan Bee	288,000.00	SETI
			853,250.00	

### *Fundamental Research Grant Scheme (FRGS, 2011)*

No	Title	Project Leader	Amount of Fund (RM)	School
1	Communication Skills in Accounting Education: The Opinions of Practitioners, Educators and Graduates	Prof. Dr. Juhari Bin Samidi	78,750.00	SOBI
2	An Assessment of Effectiveness of Accounting Education in Meeting the Needs of the Professions	Prof. Dr. Tengku Akbar Bin Tengku Abdullah	78,750.00	SOBI
3	Exploring Marketing Communication Models in Private Higher Education in Malaysia	Luis Manuel Pazos Sanchez	149,000.00	SCLS
4	Suitable Roof Design for Rainwater Harvesting: A Pilot Study on Effective Roof Slope and Roof Material	Sr. Nur Khairul Faizah Mustafa	125,000.00	SABE
5	Mathematical Model for Slope Profiling and Slope Stability Analysis	Assoc. Prof. Sr. Ranjit Singh	166,500.00	SABE
6	Tata Atur Kampung Warisan dan Seni Bina Tradisional Melayu di Utara Semenanjung Malaysia	Assoc. Prof. Dr. Zulkifli Hanafi	247,500.00	SABE
7	Effectiveness of Passive Design Elements Installed in the Renovated Block B, KLIUC, Unipark Suria	Siti Noraini binti Ahmad	103,000.00	SABE
			948,500.00	



### *Long Term Research Grant Scheme (LRGS, 2011)*

No	Title	Project Leader	Amount of Fund (RM)	School
1	Human capital development	Assoc. Prof. Dr. Siti Maziha Mustapha	650,000	KLIUC, UNIRAZAK & UKM
2	Water & Energy safety	Prof. Dr. Roslan Zainal Abidin	1.76 million	USM, KLIUC & UITM
			2.41 million	

### *Prototype Development Research Grant Scheme (PRGS, 2011)*

No	Title	Project Leader	Amount of Fund (RM)	School
1	Mobile User Location Based Detection for Malaysia Emergency Response System	Ir. Dr. A. RazakYaacob	3,130,000.00	SETI
2	Vehicle Kinetic Energy Harvesting System	Low Yee San	292,000.00	SETI
			3,422,000.00	

*The collaborative effort between USM, KLIUC and UITM has been fruitful. The research team succeeded in being awarded a grant worth RM6 million under the LRGS. Congratulations to Prof. Dr. Roslan Zainal Abidin for his outstanding achievement.*



Professor Dr. Roslan and the China expert, Mr Sun Guang Chang at the research site.



Participants attending a briefing on research grants.

## Participants' Testimonials

"I still remember the first time I was informed by Puan Suhaila regarding the KIIC 2011 competition; I was excited and feeling a bit panicky when I realized that the competition day was just around on the corner. After all hard work and time spent, I'm proud to introduce my College Intercom System to all. It's a chance for me to demonstrate how much we actually need this communication platform. KIIC 2011 really opened up my mind that enrolling in KLIUC is not only about studying and passing the examination, but also about becoming graduates who are ready to go for real world challenges.

I wish KIIC will be continued as an annual event in KLIUC because it presents an opportunity for the students to develop their soft skills and creativity. It also creates a positive atmosphere in KLIUC where students and lecturers can sit down together inventing and innovating potential novel products – Eureka! "

by Muhamad Azree b Abd Rahim

"We are very proud to achieve the third place in the KIIC 2011. We have learned a lot of things from this competition by looking at various types of products invented by staff and fellow students. We would like to thank the organizer of this event who gave us a chance to participate in this competition.

A special thanks to our group advisor – Ms. Annie Yap, who has guided us along the progress by giving us suggestions and recommendations for our project. In addition to this, we also would like to thank all the judges who gave fruitful comments and opinions to our project which helped us to improve our project design and operation. We hope that the KLIUC will continuously encourage its students by organizing other related competitions in the future."

by Yap Chin Yeong

"Boinkers is the brand of the product that our group created to change the way we keep our books. Boinkers is a portable shelf to keep your books. The process of creating this product is simple but it was a meticulous work. But with hard work and determination, we get to learn new skills while producing an innovation that could change a part of the human lifestyle. The prototype product took two weeks to create. At first, we failed to connect the spring properly but we kept trying until we were successful. We are proud to say that we got it done. Unfortunately, our product 'was not green enough' for the competition; so we lost. We are not downhearted with the defeat, but we are motivated to get a patent for this product to be marketable in the future."

by Muhammad Zakwan b Ahmad Fuad

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# KLIUC INNOVATION COMPETITION

*The first KLIUC Innovation and Invention Competition was themed "Explore-Innovate-Invent-Solve" held in December 2011 with an aim to promote the staff's creativity, besides screening the products before being selected to be showcased at various international exhibitions.*

The Director of RMC, Prof. Dr. Roslan Zainal Abidin, said, "It is crucial that the best three innovations and inventions from a total of 28 groups for this competition will be selected to participate at various national and international exhibitions and competitions, as we know that the education sector has made a large contribution in raising the number of patents per capita in our country."

The president of KLIUC, Prof. Dr. Zulkifli Abdul Hamid, said, "The effort was part of KLIUC's continuous efforts and commitment in providing a platform for student and staff inventors to showcase their work which will offer some changes for the benefit of mankind and for commercialization opportunities."

We are proud to report that a total of 28 groups, consisting of 138 students and 8 lecturers, participated in this competition. Among the private higher education institutions, KLIUC is one of the first to hold such an event. Participation was received from all six schools at KLIUC: School of Engineering and Technology Infrastructure (SETI), School of Architecture and Built Environment (SABE), School of Applied Science and Foundation Studies (SASF), School of Information Technology Infrastructure (SITI), School of Business Infrastructure (SOBI) and School of Communication and Language Studies (SCLS).

Among the many notable entries three groups were selected as the winners. The most extraordinary invention, a decoration pot made from alum sludge, put up by students from SETI:





# IN AND INVENTION ON (KIIC 2011)

*vention Competition 2011 (KIIC 2011),  
olve” was debuted in KLIUC on 20th  
te and highlight KLIUC students and  
he interesting and impressive entries  
t the national and international levels.*

Chong Choe Earn, Jordan Tan and Qin Yi, won the Gold Medal plus RM400.00 and certificate.

The Silver Medal plus RM300.00 and certificate was awarded to the invention of College Intercom, innovated by Muhammad Azree, Mdm. Suhaila Sardi, Mdm. Hasnani Hassan, and Mdm. Jaya Malathy from SITI.

The Bronze Medal plus RM200.00 and certificate was awarded to Yap Chin Yeong, Lau Yoong Shearn, Frederick Toh, Kong Jack Kiong and Ms. Annie Yap Ai Kin of SETI, who designed a new green invention that enables compressed air to generate power in the engine.

Certificates for the Best Poster award went to Group DIY Wakaf (Do-it-Yourself Wakaf) of SABE, and Certificate for the Best Presenter award went to (DOCUBIND) by Intan Suhana binti Juhari of SCLS.

The top three winners were selected to represent the university in the 23rd International Invention, Innovation and Technology Exhibition (ITEX '12) in May 2012. Six other groups, namely RFID Electrical Meter (SETI), Boinkers (SCLS), Grammar on Wheel (SCLS), Trash Reward Recycle Machine (SASF), Cube vs Maze (SABE) and FAKE (SOBI) were also identified to represent KLIUC in the MSC Malaysia IHL Business Plan Competition (MIBPC) in March 2012. The competition requires the participants to be creative, innovative, able to work in a limited time and endure hardship, and also work as a team. A few of the teams' representatives were interviewed to share their experience with us.

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Gold Medal Winner: Decoration Pot using Alum Sludge



Silver Medal Winner: College Intercom



Bronze Medal Winner: Compressed Air Engine



Best Poster: Do-It-Yourself Wakaf



Best Presenter: Intan Suhana Juhari





## Participants' Testimonials

"My team took nearly one month, and we enjoyed working together to complete the project. We started late to create a model for our project. This had caused us to have limited time whereby we had to stay up late at night to complete it in addition to our daily routine and tasks as students. This project has taught us the importance of time, commitment, teamwork and hardship in meeting deadline of a competition."

by Muhammad Rais b Hamdan

"Participating in KIIC 2011 has certainly reinforced our team commitment to achieve the final goal which was to come up with an innovative product. My team chose to do Trash Reward Recycle Machine. We wanted to design the machine in order to contribute something to the community. We hope that this product will contribute to the green concept visualized by our nation. Throughout the process all the team members showed a genuine desire to commit and we managed to address all the challenges. We also had fun while working on this project."

by Moad Akram Agil

"My team consisted of four members. We invented the 'Snowing Christmas Tree' for KIIC 2011. We put in a lot of effort in producing this Snowing Christmas Tree. We had to stay back in the university during the weekends to work on it as we were busy with our classes on weekdays. But then, we were very happy with the final outcome of our project. During the KIIC 2011 many visitors came by our booth to see how the tree worked. Joining this competition had uplifted our confidence level to participate in similar competition in the future."

by Khoo Kuan Liang

"The Grammar on Wheel is a product that assists students to learn English easily, especially grammar rules. We get an opportunity to develop our own product to accomplish this and displayed it in the KIIC 2011. The school was very supportive by giving us allocation to buy the materials for our product. We enjoyed working on the project though we were stressed. During the competition, we were nervous and excited to present our product. In addition to it, we were also very curious to know whether our product was accepted by the spectators. We were pleased to get good feedback from the students and lecturers who visited our booth."

by Desmond David Vincent



Prof. Dr. Zulkifli looking on as Yap Chin Yeong was explaining about his innovation.



Muhammad Rais explaining their project to the President of KLIUC.



Team members of Trash Reward Recycle Machine with their advisors, Ms. Hanita and Ms. Nalinah



Aizuddin and Muhammad Zakwan demonstrating how Boinkers function in identifying the missing books to Prof. Dr. Zulkifli and Mr. Lim Yew Ting.



Shamini explaining to the audience how to play the Grammar on Wheel.

## From the Judges' Eyes

The judges were thrilled to listen to the participants pitching their innovative ideas. The entries were impressive as the participants put their heart and soul into the products they developed and into the preparation of the KIIC presentation. Coming from different backgrounds, the judges brought with them different perspectives, thus making judging multifaceted and exhaustive.

Being the first Innovation and Invention Competition organized by the Research Management Centre, the judges saw a lot of potential in the products showcased. Some products focused more on usability while some others embedded the eco-friendly concept as the essence of their products. For further improvement, one of the judges suggested the participants to start with a survey of the new and developing markets, thus creating a niche in the respective area. This is because the market almost always drives development in the "real world". A product that is technically complex or innovative that has limited consumer appeal or little likelihood for success will not be considered for launch in the industry. On the other

hand, overcoming technical hurdles with innovative solutions in order to launch a product that has been tested positively with consumers is another way to appeal to the market.

Another judge noted that product description and process description are vital in any innovation or creation. Being thorough in these two areas certainly increases the chances for the participants to emerge as winners in the competition.

Ms. Josephine Ong, from MDEC was a special guest as her task was to identify groups with the most potential to compete in Msc Malaysia-IHL Business Plan Competition (MIBPC) in March 2012.

Last but not least, the judges commended the esprit de corps

exhibited by the participating teams which were made up of students and lecturers.

KIIC is indeed another platform that helps create a sense of unity among members of KLIUC. ●



KLIUC's President giving the officiating speech



Some of the attendees listening to the officiating speech by KLIUC President



Judges, Assoc. Prof Khairul Salleh and Norazreana, listening to the participant's pitch.



Ms Janagi (KLIUC representative for MIBPC) and Ms. Josephine Ong, representative from MDEC checking out the innovations.



# KIUC 2011

## in the news



The gold medal winners won with the entry "Reuse Alum Sludge as Decoration Pot."



Prof Dr Zulkifli congratulates the winners of the first KLIUC Innovation and Invention Competition 2011.

## A creative bunch

**T**HE first KLIUC Innovation and Invention Competition 2011 (KIIC 2011) was held on Dec 20 last year at the Atrium, Block B. The event themed "Explore-Innovate-Invent-Solve" was organised by Research Management Centre (RMC) of KLIUC.

The competition served as a screening process before products are showcased at national and international levels. The exhibition cum competition was intended to augment and highlight the intrinsic creativity of students and staff in KLIUC.

KIIC 2011 began with a welcoming address by RMC director and KIIC 2011 chairperson, Prof Dr Roslan Zainal Abidin followed by an opening speech by KLIUC president Prof Dr Zulkifli Abdul Hamid.

The competition showcased 29 entries by the students and staff of KLIUC. Participation was received from all the six Schools at KLIUC: School of Engineering and Technology Infrastructure (SETI), School of Architecture and Built Environment (SABE), School of Applied Science and Foundation Studies (SASF), School of Information Technology Infrastructure (SITI), School of Business Infrastructure (SOBI) and School of Communication and Language Studies (SCLS).

The event witnessed many interesting and notable entries. An extraordinary invention was the use of alum sludge as material to produce decoration pots. The invention

took the gold medal in the competition, received by students from SETI: Chong Choe Eam, Jordan Tan and Qin Yi.

The silver medal winners realised the need to create a platform where students and lecturers can exchange information and communicate effectively. Thus, Muhammad Azree, Suhaila Sardi, Hasnani Hassan and Jaya Malathy from SITI invented the "College Intercom" to smoothen the communication process among the students and lecturers.

The bronze medal winners had designed a system to replace the current car's gasoline engine. Instead of using petroleum fuel to generate power in the engine, power can now be generated by using compressed air. This fuel alternative system was invented by Yap Chin Yeong, Lau Young Shearn, Frederick Toh, Kong Jack Kiong and Annie Yap Ai Kin of SETI.

Aside from the top three positions, the Best Poster and Best Presenter were acknowledged with an award. The Best Poster award went to Group DIY Wakaf (Do-it-Yourself Wakaf) of SABE and the Best Presenter award went to Intan Subana Juhan of SCLS.

● For details on KLIUC, contact 03-8926 6993 / 019-388 3435 or e-mail inquiry@kliuc.edu.my or visit [www.kliuc.edu.my](http://www.kliuc.edu.my). Follow KLIUC at facebook.com/KLIUC\_Education and twitter.com/KLIUC\_Education for latest campus news.

## Pasu mendapan selut juara reka cipta

Oleh Rosniza Mohd Taha  
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**I**NOVASI serampang dua mata memanfaatkan mendapan selut daripada rawatan air bagi menghasilkan pasu melayakkan wakil Pusat Pengajian Kejuruteraan dan Teknologi Infrastruktur (SOETI) menjuarai Pertandingan Inovasi dan Reka Cipta Kuala Lumpur Infrastructure University College (KLIUC), baru-baru ini.

Hasil inovasi kumpulan pelajar dianggotai Chong Choe Eam, Jordan Tan dan Qin Yi itu terpilih kerana ia bukan saja mengurangkan penggunaan pasir dan tanah liat bagi pembuatan pasu, tetapi turut menyelesaikan masalah pelupusan sisa buangan rawatan air berkenaan menerusi pendekatan mesra alam.

Choong berkata, penyelidikan membuktikan penjimatan penggunaan tanah liat hingga 75 peratus bagi menghasilkan pasu kerana boleh digantikan dengan selut sekali gus mengurangkan kos pembuatan.

"Sebelum ini mendapan selut hanya dibuang di atas tanah dan memerlukan peruntukan ruang. Dengan penemuan kami ini, selut dapat dikitar semula bagi menghasilkan pasu pada kos lebih murah," katanya ketika ditemui pada Majlis Penutup dan Penyampaian Hadiah KIIC



# KIIC 2011 in the news

## STAFF & STUDENTS SHOWCASED THEIR INTRINSIC CREATIVITY AT KLIUC INNOVATION & INVENTION COMPETITION



First prize winner B8 reuse alum sludge as decoration pot, SETI (School of Engineering and Technology Infrastructure)

The Kuala Lumpur Infrastructure University College (KLIUC) launched the KLIUC Innovation and Invention Competition (KIIC 2011), an event to be held annually, by the University's President, Professor Dr. Zulkifli Abdul Hamid. The competition saw more than 20 participants tucked into their thinking hats, eager to showcase their inventions.

The competition aims to reward invention and innovation of all members of KLIUC academic community. It also endeavours to inspire students and staff to explore ideas, take risks, and ultimately invent a product that might make a difference in the world.

The competition that was held at the KLIUC atrium witnessed staff and students com-

pete as they explore ideas, take risks, and ultimately invent a product that might make a difference in the world.

Collaborations between staff and students are encouraged so they could research, design, and build their own inventions. Through the competition, the Research Management Centre hopes to instill in values of creativity and productivity, while recognising and reward those who demonstrate outstanding accomplishments in innovation.

The inventions and innovation products were judged by panel of distinguished research and development experts and researchers from KLIUC. Participants entered must give consideration to the conceptualising ideas in designing the prototype. The ideas and products must have benefit to the society and environment and it has to be something fresh.

The winners of the competition were:

Best Poster Award: B23 DIY Wakaf SABE  
Best Presenter Award: B11 Intan Suhana

Juhari, SCLS

Gold Medal: B8 Re-use Alum Sludge as

Decoration Pot, SETI

Silver Medal: B15 KLIUC InterComm,

SITI

Bronze Medal: B6 Compressed Air Engine,

SETI



### Creativity Lives On At KLIUC's Innovation & Invention Competition

On 28th December 2011, Kuala Lumpur Infrastructure University College (KLIUC) launched the KLIUC Innovation and Invention Competition 2011 (KIIC 2011). Organized by the University's President, Professor Dr. Zulkifli Abdul Hamid, the competition is scheduled as an annual event at the University. The inaugural event saw more than 20 participants during their thinking hats, eager to showcase their inventions.

KIIC 2011 will offer digital 'Eureka-Inventor' award. 'Eureka' was launched by the Research Management Centre (RMC) of KLIUC as a screening process before the products that are selected are presented at the national and international level. The innovation, invention and management award have been a catalyst to the technological revolution within the last two decades. This event aims to motivate all academic and non-academic staff as well as students of KLIUC to take the Malaysian Government's call for the university to make innovation and produce new inventions. These new products should benefit the working, improve the quality of life and enhance the use of science and technology of the nation to be one of the KLIUC motto 'For Knowledge, For Humanity'.

The competition that was held at the KLIUC atrium witnessed staff and students competing as they explore ideas, take risks, and ultimately invent a product that might make a difference in the world.

Collaboration between staff and students are encouraged so they could research, design, and build their own inventions. Through the competition, the Research Management Centre hopes to instill in values of creativity and productivity, while recognizing and reward those who demonstrate outstanding accomplishments in innovation.

The inventions and innovation products were judged by a

panel consisting of the Research and Development experts and award from KLIUC.

The winners of the competition were:

GOLD MEDAL: B8 Re-use Alum Sludge as Decoration Pot - SETI  
Award judges are usually equipped as best applications, that the invention needed to be a decoration pot. It is also good reference as the Alum sludge will replace as much as possible the volume of soil and clay for making the pot. By Chong Chai Sam, Justin Tan, Qs Yi.

SILVER MEDAL: College Invention - SITI

The invention is to provide a platform where students and lecturers can exchange their ideas and experiences. The College Invention award for faculty innovation is to be delivered to the respective audience (staff) by the Invention Award, Scholar, Award, Researcher, and the RMC.

BRONZE MEDAL: Compressed Air Engine - SETI

This invention is designed to replace the current gasoline engine in cars. Instead of using the petrol fuel to generate power in the engine, this product can generate the required power by using air compressed air. This is a new concept of generating power from air. The module can be used to generate the power while achieving zero emissions as it exhaust only discharges air. It is also economical to use as it can be compressed air at low pressure which is available for free at every petrol station.

By Yip Yip Yip, Yip Yip Yip, Yip Yip Yip, Yip Yip Yip, Yip Yip Yip, Yip Yip Yip.

Winners took home cash rewards and medals.

KISBAR, January 2012

New Sabah Times English (KK), 27 December 2011

di Kajang, baru-baru ini.

Kemenangan itu melayakkan mereka meraih hadiah wang tunai RM400, pingat emas dan sijil.

Sebanyak 28 produk dipertandingkan bersempena dengan pertandingan inovasi dan reka dipta itu yang julung kali diadakan membolehkan lebih 120 pelajar dan pensyarah kolej universiti berkenaan sebagai menyahut seruan kerajaan supaya memperkasa aktiviti penyelidikan di institusi pengajian tinggi bagi menjayakan agenda Model Ekonomi Baru.

Presiden KLIUC, Prof Dr Zulkifli Abdul Hamid menyempurnakan upacara penutup dan penyampaian hadiah. Hadir sama, Pengarah Pusat Pengurusan

Penyelidikan KLIUC, Prof Dr Roslan Zainal Abidin serta Penyelaras KLIUC, Prof Madya Dr Siti Mazha Mustapha.

Tempat kedua yang menawarkan hadiah wang tunai RM300, pingat perak

## KLIUC Menandatangani MOU Dengan Jabatan Perikanan Malaysia Bagi Menjalankan Projek Ternakan Kekapis Dan Gamat



Gambar di atas: Perjanjian ditandatangani oleh Yang Berhormat Dato Ahmad Sabri bin Mohamad, Ketua Pengarah Perikanan Malaysia bagi pihak Jabatan Perikanan Malaysia (JPPM) dan Profesor Dr Zulkifli Abdul Hamid, Presiden KLIUC bagi pihak KLIUC (dari belah).

Kuala Lumpur Infrastructure University College (KLIUC) melalui kerjasama dengan pejabat pusat ke Kementerian di peringkat kebangsaan dan antarabangsa, baru-baru ini telah menandatangani sebuah Memorandum Persefahaman (MOU) dengan Jabatan Perikanan Malaysia. MOU tersebut adalah merupakan satu usaha sama bagi projek penyelidikan dan pengkomersialan, pembenihan serta ternakan gamat dan kekapis. Program kajian dan pembangunan bioteknologi dalam akuakultur ini menitikberatkan program R&D mengenai:

1. Kebolehsuaian gamat dan kekapis spesies berkilat sederhana dengan persekitaran tropika;
2. Pembiakan gamat dan kekapis (spesies tempatan dan berkilat sederhana) yang menggunakan kejuruan dan teknik dari Negara China dalam kedua-dua persekitaran terkawal (maksud) dan luar; dan
3. Pembangunan perkhidmatan sokongan untuk pembiakan, penanaman,

pengkomersialan dan pengkomersialan gamat dan kekapis.

Perjanjian tersebut telah dilaksanakan oleh Yang Berhormat Dato Ahmad Sabri bin Mohamad, Ketua Pengarah Perikanan Malaysia bagi pihak Jabatan Perikanan Malaysia dan Profesor Dr Zulkifli Abdul Hamid, Presiden KLIUC bagi pihak KLIUC.

Kajian dan pembangunan bioteknologi dalam akuakultur ini bakal dijalankan di Institut Penyelidikan Perikanan, Pulau Selayar, Kota Kuala Muda. Kedua-dua pihak adalah bidang yang menyokong pembangunan perikanan bercili, sederhana dan bersewa besar. Bagi mencapai kejayaan dan keuntungan dalam sesuatu perusahaan, ia hendaklah dilaksanakan secara mampan atau lestari, berdasarkan ilmu dan teknologi yang maju. Usaha ini akan membolehkan KLIUC/Jabatan Perikanan Malaysia menyumbang kepada pembangunan industri akuakultur khususnya dalam pembenihan gamat dan kekapis.

Berita Harian, 29 December 2011

KISBAR, January 2012

## Aquaculture Research Project

*KLIUC as an infrastructural-based higher institution of learning and research has turned its focus on aquaculture research which is one of the critical focus areas of our Economic Transformation Plan (ETP). The research project taps into aquaculture's lucrative market by studying the adaptability of the temperate species sea cucumbers and scallops from Shandong, China to be bred in tropical environment of Malaysia.*

continue ►



The MOU Signing Ceremony at Putrajaya



With the collaboration between KLIUC and Fisheries Research Institute (FRI) in Pulau Sayak, Kedah and support from Kumpulan Ikram Sdn Bhd, the temperate species are studied for its adaptability to the tropical environment of Malaysia. The Aquaculture Project Memorandum of Understanding between Department of Fisheries and KLIUC was signed on 24 Nov 2011 at Dewan Arwana, Ministry of Fisheries, Putrajaya. This research which is led by Ms. Lee Su Yee from School of Applied Sciences and Foundation Studies, probes into how the temperate species' characteristics match with their new habitat in control environment (lab) and natural environment (sea) and how that shows adaptation to enable cultivation and supply to the local market.

The research aims to investigate the adaptability (survival rate, temperature, salinity, food, etc) of sea cucumbers and scallops of temperate species to the tropical environment of Langkawi, Kedah Darul Aman in a controlled environment (lab) and on-site (sea) and the breeding of sea cucumbers and scallops (temperate species) using expertise and technique from China in a controlled environment (lab) and on-site (sea).

It is hoped that the outcomes of this research will be the discovery of techniques for breeding and cultivation of sea cucumbers and scallops (temperate species) in a controlled environment (lab) and natural environment (sea), and technique or technology for processing downstream activities of sea cucumbers and scallops.

KLIUC aims to make aquaculture one of its niche areas as the field has a high commercial potential. To reach its vision of becoming a centre of excellence nationally and internationally, KLIUC realizes that the real bench mark of excellence in research is the outcomes that bring the most benefit to the people and the nation. With the right support from all parties, KLIUC is confident that through this research effort, it would be able to support the food supply besides earning potential revenues through unlocking of new potential within our aquaculture sector. ●



KLIUC Aquaculture Research Committee Meeting



Aquaculture Research Joint Committee Meeting at FRI Pulau Sayak.



Labs where the species are bred.



Labs where the species are bred.



# KLIUC

KUALA LUMPUR INFRASTRUCTURE  
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## Transform Your Dream

### Into REALITY

### Intakes

February | May | September

#### School of Engineering & Technology Infrastructure

Civil Engineering | Electronics Engineering | Applied Automotive

KPI/JPS(KR9926)3/14 – KPI/JPS(KA7644)2/12 – KPI/JPS(KA8381)1/13

#### School of Architecture & Built Environment

Architecture | Quantity Surveying | Geomatic Engineering

KPI/JPS(KA9919)10/13 – KPI/JPS(KA9330)6/15 – KPI/JPS(KR11204)2/15

#### School of Communication & Language Studies

English for Professional Communication

| Corporate Communication | Integrated Marketing Communication

KPI/JPS(KR10118)6/14 – KPI/JPS(KR9860)1/14 – KPI/JPS(KR11555)5/15

#### School of Business Infrastructure

E-Commerce | Business Administration | Accountancy

KPI/JPS(KR9617)12/13 – KPI/JPS(KR9869)3/14 – KPI/JPS(KR10117)4/14

#### School of Information Technology Infrastructure

Computer Science | Network Technology | Software Engineering

KPI/JPS(KR9432)8/13 – KPI/JPS(KR10119)3/14 – KPI/JPS(KR10578)7/14

#### School of Applied Science & Foundation Studies

Biotechnology | Agricultural Science | Foundation in Science

KPI/JPS(KA11306)11/15 – KPI/JPS(KA10819)6/15 – KPI/JPS(KR9588)10/13

## WHY KLIUC?

- 1 GLOBAL STANDARDS
- 2 ACADEMIC EXCELLENCE
- 3 GREEN INNOVATION
- 4 VIBRANT STUDENT LIFE
- 5 RESEARCH ENDEAVOUR

KPI/JPS/DFT/US/811 KPI/JPS/IPTS(Dft/Aku)

# KLIUC

KUALA LUMPUR INFRASTRUCTURE  
UNIVERSITY COLLEGE

For Knowledge • For Humanity

## KUALA LUMPUR INFRASTRUCTURE UNIVERSITY COLLEGE

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