



MIMOS*Focus*

Focusing In • Reaching Out



MIMOS recharges

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Prof Dr Masuri Othman talks about
his journey in knowledge and discovery,
from the academia to a R&D centre, then to Putrajaya

VADS picks MIMOS as partner on cloud



SILVER LINING... Abdul Wahab and Ghazali exchanging MoU documents while Suriah and Zamzamzairani look on.

On 1 July 2011, MIMOS formalised its partnership with TM's wholly-owned subsidiary, VADS, to provide the latter with Cloud Computing Platform. The smart partnership will enable VADS to offer comprehensive suites of Cloud Services to enterprise, government and SME segments, leveraging on MIMOS'

orchestration technology which features innovative homegrown cloud technology backed by patented cloud security technology.

"VADS chose to partner MIMOS because of the uniqueness of our Cloud Computing services which is open, secure and inter-compatible.

Our cloud platform, built on open source software, means the total cost of ownership can be reduced via cost-effective licensing; while the modular and flexible platform enables easy integration with other systems thereby making deployment easy, maximising value and reducing the risks in depending on a single vendor," said MIMOS CEO Datuk Abdul Wahab Abdullah after the signing ceremony with VADS, which was represented by its CEO Ghazali Omar. The ceremony was witnessed by MIMOS Chairman Dato' Suriah Abdul Rahman together with Chairman of VADS who is also the Group CEO of TM, Dato' Sri Zamzamzairani Mohd Isa.

MIMOS has worked on a five-year high-performance computing technology roadmap for the Ninth Malaysia Plan and is now into its second phase, which is another five-year roadmap for Cloud Computing Initiative for the 10th Malaysia Plan. [www.mimos.gov.my](#)

Ontology pact with Austria's Know-Center enters Phase 2

After a successful first phase of the collaborative Semantic Mediation project, Know-Center GmbH, Austria has signed an MoA to continue the collaboration with MIMOS. The contract was signed by MIMOS CEO Datuk Abdul Wahab Abdullah and Head of Knowledge Technology Dr Dickson Lukose with Know-Center CEO Erwin Dusching and Scientific Director Michael Granitzer, at MIMOS on 3 Aug. The

renewed cooperation is set to strengthen Know-Center's existing relationship with Malaysia and the Asiatic region.

The joint research collaboration investigates technologies for the semi-automatic mediation of ontology in the semantic web for connecting large, distributed knowledge bases. The collaboration will provide researchers from both organisations with the opportunity for a research stay at the respective partner. MIMOS is an associated scientific partner of Know-Center. [www.know-center.at](#)



MIMOS teams up with Sabah state agencies

Two Sabah state agencies have signed MoUs with MIMOS on 10 Oct, for technology development, innovation and research programmes in agriculture and its related industries in the state. The exchange of documents was witnessed by Sabah Deputy Chief Minister who is also the state Minister of Agriculture and Food Industry Datuk Seri Panglima Haji Yahya Hussin, and MOSTI Minister Datuk Seri Panglima Dr. Maximus Johnity Ongkili.

The pact with Sabah Agriculture Department (JPS) is for a development programme on Precision Agriculture, where JPS becomes a technology recipient of the Wireless Sensor Network platform developed by MIMOS together with Universiti Putra Malaysia, Kontron Design Manufacturing Services Sdn Bhd and Intel Technology Sdn Bhd. The Agriculture Research Centre in Tuaran has been identified for the pilot project using this technology.

Under the second MoU, MIMOS will provide its semantic technology to develop a knowledge management platform for



Sabah Development Authority (SEDIA)'s Herbal Medicine Knowledge Repository Project. This repository project will be linked to various other similar knowledge repositories around the world, thus enabling local user access to information from both local and global knowledge databases on herbal medicine. [\[7\]](#)



MIMOS-UM collaboration to save RM100 mil in capex

The University of Malaya (UM) has signed a Memorandum of Understanding with MIMOS on the sharing of expertise in conducting research and development in high-impact projects. The MoU was signed by University of Malaya Vice Chancellor Tan Sri Dr Ghauth Jasmon with MIMOS CEO Datuk Abdul Wahab Abdullah on 24 Oct. Also present MIMOS Chairman Dato' Suriah Abdul Rahman.

The pact will focus on six projects;

namely Dengue and Drug Design, Dentistry, Energy Harvester, Malaysian Biodiversity Resources, Optical Tweezers and Intelligent Learning Platform for Tomorrow's Doctors. The sharing of research resources and facilities will see both parties cutting their capital expenditure of up to RM100 million within a five-year period. The collaboration will also see six MIMOS researchers enrolling in PhD programmes at UM. [\[7\]](#)



13 partners ink MoU for shared services

Thirteen key players in Electrical and Electronics (E&E) sector have together signed an MoU enabling them to tap into MIMOS' various expertise, facilities and resources. The 13 establishments, representing five E&E sectors namely Fabless Design, Manufacturing, Consultancy and R&D, Equipment and Chemical; and Training and Education, signed the MoU in the presence of MOSTI Minister Datuk Seri Dr Maximus Ongkili on 29 Nov. The partnership for shared facilities can decrease dependency on foreign help, saving costs of up to 35 percent yearly.

The 13 parties are MyMs, Symmid, KeyASIC, PHY Semiconductor, Infineon Technologies, IRIS Technologies, Sensata Technologies, EFGO Scientific, Stratsec. Net, Quantum Electro Opto Systems, Image Transform, Avantor Materials, and Universiti Malaysia Perlis (UNIMAP). The only university among 13 partners, UNIMAP, will benefit from this partnership in its efforts in supporting the initiatives of the Northern Corridor Economic Region.



Maximus checking out one of the equipment on display after witnessing the signing of MoUs.

The move to offer shared services was made by MIMOS in sustaining its role and contributions to the success of the government's Economic Transformation Programme. The 13 MoU partners represent the universe of SMEs, SMIs and multinationals who are key to the

development of Malaysia's E&E sector. The MoU will enable the partners to use MIMOS' facilities as part of their work in the development of their product. During the course of sharing the facilities, MIMOS will also be able to identify areas that it can support the industry in. [www.mimos.gov.my](#)

Two defence-related partnerships sealed during LIMA'11

On the sidelines of Langkawi International Maritime and Aerospace Exhibition 2011 (LIMA'11) held at the resort island, MIMOS signed two MoUs with key industry players in defence-related ICT technologies. The first MoU was signed with System Consultancy Services Sdn Bhd (SCS) for collaborative R&D efforts in the areas of Information Security and Semantic Technology. SCS is a solution provider for advanced electronics, computers and telecommunications in the fields of engineering and R&D, consultancy and support services.

The second MoU was with Destini Bhd, for collaboration in Software Development and Cloud Computing Technology. Among other defence-related activities, Destini supplies defence and aviation equipment and accessories; provides maintenance, repair, and overhaul services for aviation electronics, safety and survival equipment, ground support safety equipment and electromechanical-related accessories. The MoUs were signed in the presence of Defence Minister Datuk Seri Zahid Hamidi and his deputy Datuk Dr Abd Latiff Ahmad. [www.mimos.gov.my](#)



Reliability Lab now MS ISO/IEC certified

MIMOS' Product Quality and Reliability Engineering (PQRE)'s Reliability Lab has been accredited MS ISO/IEC 17025:2005 - General requirements for the competence of testing laboratories by the national laboratory accreditation scheme (SAMM) of the Department of Standards Malaysia on 11 Oct 2011, making MIMOS the third government-owned company to be granted the certification, after SIRIM and Tenaga Nasional. PQRE is also the first MIMOS lab to have been adopted and accredited with ISO Quality and Management.

The accreditation process on competencies of lab staff, documentation, process and testing method – from training, quality and technical manual, interlaboratory comparisons, and assessments performed by SAMM assessors took 18 months to complete. Eleven types of test were accredited to



CERTIFIED COMPETENCE... MIMOS CEO Datuk Abdul Wahab Abdullah and PQRE Lab director Mohamed Redzuan Abdullah with the MS ISO/IEC certificate of accreditation.



MIMOS for consumer and industrial electronic devices testing in reference to International Electrotechnical Commission (IEC) and Military International Standard test method.

The ISO is recognised globally by the International Laboratory Accreditation Cooperation (ILAC) and the Asia-Pacific

Laboratory Accreditation Cooperation (APLAC), and nationally by the National Cooperation for Laboratory Accreditation. It ensures the integrity of quality and testing standard and provides assurance of accuracy, traceability and reproducibility of test reports for greater prospect for international trade. [www.mimos.gov.my](#)

Prof Ridza wins CSO Asean Award 2011

MIMOS Associate Scientist Prof Mohamed Ridza Wahiddin has added another feather in his cap when he was announced by Vietnam's International Data Group (IDG Vietnam) as one of ASEAN's 10 most outstanding Chief Security Officers (CSO) at the Third CSO ASEAN Awards held in Ho Chi Minh City, Vietnam on 6 Dec 2011. CSO Conference & Awards is a premier event for senior-level security, risk and business executive responsible for securing and protecting their organisations' assets and infrastructure to exchange ideas.

CSO ASEAN Awards 2011 did not only assess technical knowledge and successful projects implemented by the CSOs in their organisations, but also focused on their leadership role, strategic vision and innovativeness in providing the highest performance for the organisation and society.

In 2009 Prof Ridza was an Honouree of the Asia-Pacific Information Security Leadership Achievement from (ISC)2 in the Senior IT Security Professional Category. In 2010 he was the recipient of the CyberSecurity Malaysia Awards

2010: Information Security Visionary of the Year (CSO of the Year) and MOSTI Deputy Minister's Award. The awards complete the set of important awards recognising contribution to the advancement in the field of Information Security in the region. [www.mimos.gov.my](#)



Erascan captures the dot

Second Red Dot Award for MIMOS industrial design team

Erascan is a whiteboard eraser that doubles as a digital scanner. It automatically scans all drawing or notes on a whiteboard while erasing, and converts them into digital images. Thus, to save whiteboard content digitally, all the user has to do is erase it! Erascan saves all scanned information directly into its internal storage system. During use, it intelligently locates its position and tracks its movement. This device automatically recognises handwriting and identifies email or website addresses. After scanning, the data can be shared or sent wirelessly through email. Compact and easy to carry, Erascan is a cheaper and simpler alternative to digital whiteboard.



MIMOS Industrial Design Team, from left: Mohd Nizam Najmuddin, Saharudin Busri Yasin, Nazjimee Amat@Omar and Mohd Rohaizam Mohd Tahar.

MIMOS has again secured the prestigious Red Dot Award under the Design Concept category, this time for its innovative Erascan. This is MIMOS' second time receiving this international award. The award presentation ceremony was held at the Red Dot Design Museum in Singapore on 25 Nov 2011.

According to Red Dot officials, the judging by the jury made of international design experts lasted several days, evaluating a total of 3,536 works from 54 countries. After a tough but

fair judging, only 252 concepts or seven percent were awarded the Red Dot for 2011.

Erascan was designed by MIMOS' Product Development and System Integration team comprising Mohd Rohaizam Mohd Tahar, Mohd Nizam Najmuddin, Nazjimee Amat@Omar, Saharudin Busri and Nuzairi Yasin. Red Dot is the most sought-after mark of quality for excellent design and trendsetters and is the most respected by experts in the field internationally. 

Igniting innovative ideas



SPARK OF CREATIVITY... Galoh Rashidah Haron of Information Security Cluster presenting her idea, "Me, Bike and Data Storage" at the 2nd iSpark session.



ENCOURAGING INNOVATION... Foo Lai Ning of Technology Strategy and Planning speaking on "Hidden Memory for Mobile Phones" at the first iSPARK session on 18 Aug.

Some were mind-boggling, some refreshing, but all were great and inspiring! We're talking about the ideas that have been presented at the MIMOS auditorium since Aug 2011. In the effort to promote a culture of idea-sharing and open discussion towards developing industry game-changers among MIMOSians, the company has initiated a series of Ideation Platforms for MIMOSians to share creative ideas and discuss innovation needs. The platform comprises three sub-initiatives namely; iSpark (presentation of ideas), iQuest (online forum) and iFusion (deliberation of

iSpark and iQuest inputs).

Three iSpark sessions were held respectively on 18 Aug, 23 Sept and 18 Oct, where scores of MIMOSians listened to cool, creative ideas presented by the brave researchers, scientists and engineers. Six ideas were presented at the first session, four at the second session and three at the third. Domains included Wireless Communications which contributed three ideas; Software Development, Information Security and MEMS (two ideas each); Advanced Informatics, Advanced Computing, Technology Strategy & Planning

and Mathematics Modelling (one idea each). Each presenter was given 15 minutes, which many presenters found too short to explain the ideas thoroughly.

The ideas were video recorded for IP protection and later evaluated and refined before they went through the "MiGate" process for possible implementation. The Ideation Platforms will be a routine activity in MIMOS, with the next session coming up on 21 Feb 2012. From the warm response and variety as well as ingenuity of ideas presented, it looks like we're in for more intense brain-picking in the months to come. ■

Technology Townhall presents MIMOS' capabilities, MTP'11 highlights commercialisation potential

Two technology-related events were organised at the beginning and end of November respectively.

On 1 Nov, MIMOS Tech Townhall provided staff members with a refresher on MIMOS-developed technologies, while on 30 Nov MIMOS Technology Preview (MTP)'11 presented the concepts and potentials of the technologies in more details to a selected audience comprising mostly SMEs and technopreneurs.

The Technology Townhall comprised a presentation, sharing and demo sessions, including a video conference with MIMOS KHTP, on MIMOS' technology achievements. The audience was updated on technology platforms, products and solutions that MIMOS has been working on as well as those that have been adopted by the industry and the government. As data is regarded as the new currency of digital age, the presentations revolved around MIMOS' focus on data-centred technologies – data collection, data modelling, data analytics and visualisation, data infrastructure and data protection;. Discussed were data at rest, data in use and data in motion.

MTP'11 focused on commercialised technology platforms and solutions across four verticals; namely communications, education, government services and agriculture. Carrying the theme “Creating Wealth through Technologies”, the half-day

event featured panel sessions on the four-plus-one technology verticals, with panellists comprising MIMOS' scientists and researchers sitting together with top executives of Technology Recipient companies.

The event started with Councillor Chairman of Asia Pacific ICT Awards (APICTA) 2011, Stan Singh delivering the keynote address on “Cloud as the Backbone of Service Delivery” after a welcoming note by MIMOS CEO Datuk

Abdul Wahab Abdullah. MIMOS Director of Market and Product Realisation Department Faisal Ahmad shared on “RM1 Billion Funnel for Industry”, followed by a technology solution update, “Technology Ready to Market” by Chief Technology Officer Thillai Raj Ramanathan. The event served as an important platform to showcase MIMOS' commercialisable technologies as well as its smart partnerships and collaboration success stories. 



SCIENCE OF CREATING WEALTH... MTP'11 presents how MIMOS can contribute its core technological competencies to the industry and help create new markets for partners through the commercialisation of patentable technologies.

Homegrown technologies rev up to go global

In an effort to boost the local economy, in line with Malaysia's NKEA and NKRA, MIMOS strategically positions itself as the catalyst in making local brand names go global with our comprehensive technology portfolio.

MIMOS technologies comprise next generation ICT platforms, products and solutions that can be built with and on top of each other to make compelling frameworks for the up-and-coming enterprise. Local enterprises can benefit from MIMOS as we constantly pursue the following:

- Transfer of technology and subject matter expertise
- Evolve companies from System Integrators into Product Developers
- Open collaboration with Industry in technology development

MIMOS technologies are meticulously developed by 10 research and development labs, each of whom collaborates with internationally renowned and accredited research institutes. Much of the features of each technology have been customised to adapt to the local flavor and requirements. This means that local enterprises who intend to utilise our technology can easily start doing so without much hassle and learning curve. They also have the advantage of being able to mix and match current market solutions together with what MIMOS has to offer.

In the aspect of quality and reliability, all of our technologies are put through a rigorous life cycle and benchmarking tests that conform to world standards. Therefore, a potential technology recipient need not worry about the sustainability and maintenance! 🏠



Some of our technologies which have been successfully transferred to our technology recipients are:

- Wireless Sensor Network (WSN) – Sensor network for remote precision environment monitoring
- Semantic Technology Platform (STP) – Platform for semantic knowledge management applications
- Intelligent Learning Management System (iLMS) – Learning tool to enhance and track student learning performance
- Intelligent Surveillance Platform (ISP) – Security surveillance system with intelligent video analytics
- Enterprise Knowledge Management System (eKMS) – Information dashboard of data and content from a variety of sources
- Intelligent Informatics Platform (I2P) – Business intelligence platform for enterprise analytic software
- Intelligent Service Delivery Platform (iSDP) – Web application that enables easy access to multitudes of Internet content
- AgriBazaar – Online marketplace for buyers and sellers of agriculture products and services
- AgriOffice – Online comprehensive supply chain management software
- Grid 4.1 (Secured Cloud) – Software engine that enables online IT infrastructure hosting
- WiWi – Quadruple play (Mobility, Internet, VoIP & IPTV) wireless outdoor access point
- Managed Security Platform and Services (MSPS) – Software platform suites for enhanced application data security
- Network Based Virtual Trusted Platform Module (NBvTPM) – Software integrity solution for secured computing environments

MIMOS shares insights at Leadership Summit



Datuk Abdul Wahab Abdullah was one of local industry captains who spoke at the PIKOM Leadership Summit 2011 held in Kuala Lumpur on 19 Oct. Carrying the theme “Transcending into High Value”, the event was one

of the highlights of National ICT Month (NIM) 2011. The MIMOS CEO presented a paper entitled “Research Driving Innovation Economy” at the event that was jointly organised by PIKOM and MOSTI. Among other

topics covered at the summit were social media, e-commerce, cloud computing and green ICT.

Speakers at the summit included prominent names such as HP Labs director Chris Whitney and Sun Microsystems vice president Dr John Gage; while local speakers also included PEMANDU director of communications content and infrastructure Dr Fadhlullah Suhaimi Abdul Malek, IBM Malaysia general manager of global technology services Wang Jack Jong and REDtone Telecommunications CEO Lau Bik Soon. This year’s summit focused on numerous current trends in the ICT industry and its importance to businesses, especially SMEs, as an effective and efficient tool to expand one’s market to a worldwide audience. [www.mimos.gov.my](#)

MySTI 2011 accentuates MIMOS’ roles

Twelve MIMOS Technology Recipients showcased technologies for government services, healthcare, agriculture, security and communications as well as manufacturing and devices at the Malaysia Science, Technology and Innovation Exposition (MySTI) 2011 which was held at Kuala Lumpur Convention Centre on 29-31 July, 2011. Carrying the theme “Ideation to Commercialisation”, the event featured more than 50 organisations occupying 53 booths, with MOSTI agencies taking up a large portion. A number of private organisations and universities were also



present to exhibit their commercialised or commercialisable technologies and research work.

More than 40,000 people visited the exhibition; and visitors to MIMOS’ main booth were appropriately guided to the Technology Recipients, who represented MIMOS’ research outputs that have



been successfully commercialised. In the process, MIMOS’ roles and initiatives in spurring R&D and commercialisation were effectively explained to the visitors, whom also comprised expatriates and foreign nationals. MySTI2011 was organised by MOSTI, with MIMOS acting as event managers. [www.mimos.gov.my](#)

Sharing psychometric ideas and issues at ICMEE 2011

The Malaysian Psychometric Association (MPA) has been established by MIMOS in mid-2011 to meet the need for a professional body devoted to psychometrics in Malaysia. An initiative of the MIMOS Psychometrics Cluster, MPA brings together representatives of various disciplines, including psychology, education, applied statistics, medicine, human resources, artificial intelligence, security and forensic science etc, that rigorously apply psychometric procedures.

As a way to promote MPA, MIMOS participated in an exhibition held alongside the Fourth International Conference on Measurement and Evaluation in Education (ICMEE 2011) at Universiti Sains Malaysia (USM) in Penang on 9-12 Oct. The conference was a collaborative effort of MIMOS and USM's School of Educational Studies. Visitors to the MIMOS booth, who



were mostly conference attendees, were briefed on the functions of the association. A number of new memberships were registered.

A professional non-profit organisation, MPA aims to encourage understanding,

cooperation and communication among people concerned with the field of psychometrics; and to promote awareness of psychometrics and its benefits in Malaysia. The association is headed by MIMOS Director of Psychometrics Cluster, Dr Haniza Yon. [www.mimos.gov.my](#)

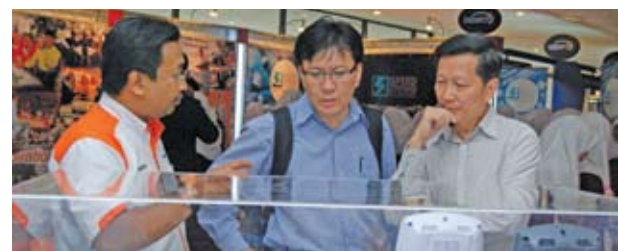
Malaysia's emphasis on innovation underscored at KLIF 2011

MIMOS participated in the National Innovation Conference and Exhibition (NICE) 2011, which was one of the main events organised in conjunction with the Kuala Lumpur Innovation Forum (KLIF) 2011, held at Putra World Trade Centre on 15-16 Nov 2011. KLIF was anchored by MOSTI with the cooperation of Malaysian Innovation Foundation. NICE 2011 was attended by some 500 high level participants representing the academia as well as public and private sectors.

Some of Malaysia's best grassroots innovations were



showcased at the exhibition, which featured more than 50 exhibitors including MOSTI agencies. MIMOS exhibited the WiWi Mesh Network, which received encouraging queries. More than 100 quality visitors were briefed on MIMOS and its R&D initiatives.



MIMOS' participation in the exhibition highlighted Malaysia's focus on innovation, which has been identified as one of the key drivers in enhancing and transforming the performance of the public and private sectors, especially within the Malaysian New Economic Model. [www.mimos.gov.my](#)

Awakening the entrepreneur within

Focus on delivery, ensure patents are filed and focus on career development – those were the key factors stressed by CEO Datuk Abdul Wahab Abdullah at MIMOS Townhall for Q2 which was held on 4 Aug at the Auditorium.



With the theme “Awakening the Entrepreneur within You”, the CEO highlighted on MIMOS’ progress at going global and the increasing number of Technology Recipients, as well on MIMOS technologies that are impacting the industries and government sector. He said that MIMOS’ edge is its capabilities in pursuing the whole chain of activities from research to commercialisation. “There are many players out there; but they mainly delve in system integration, while MIMOS is big in software development,” he said.

The CEO also said that MIMOS was looking at filing more quality IPs. As at 22 July 2011, a total of 1003 patents were disclosed

for filing, 563 patents were filed at MyIPO, 383 patents filed internationally and 68 patents were in commercialised products. As an avenue to spark new ideas towards spawning game-changing products and solutions, Ideation Platforms are being put in place.

The CEO also emphasised on performance planning for creating future leaders and personal growth. The Townhall was happy to announce the promotion of 19 outstanding MIMOSians who would now assume higher leadership positions. Four people were promoted to Grade 10, while 15 promoted to Grade 9. ■



MIMOS recharges Uncompromising Integrity pledge


Nov 11, 2011, or 11.11.11, will go down in MIMOS history as a significant day where MIMOSians renewed their passion, conviction and aspiration.

At 11 o'clock, guest of honour, MOSTI Secretary-General Dato' Madinah Mohamad delivered an insightful speech, which she punctually concluded at 11.10am. A minute later at 11.11 sharp, in a practically symbolic display of uncompromising integrity, she signed the plaque to launch MIMOS' My Integrity Commitment (MyICom), a complement to the MIMOS Code of Ethics. MIMOS President & CEO Datuk Wahab Abdullah then led MIMOSians in making the pledge to uphold Uncompromising Integrity as the

bedrock of the eight SATRIA Leadership Core Values.

Also present MIMOS Chairman, Datuk Suriah Abd Rahman and Malaysian Institute of Integrity (IIM) Deputy President Dr A Bakar Sarpon. IIM's En Mohd Nizam Mohd Ali completed the event by presenting an enlightening talk on "Integrity is the Core Value Proposition". MIMOS then presented awards to winners of the "Walking Tall" contest where MIMOSians came out with innovative ways to practice integrity at the office.

My Integrity Commitments is a complement to the MIMOS Code of Ethics (MCE). It summarises the 20 Essential Responsibilities that all MIMOSians are expected to uphold in line with the MCE. Under each of the 20 commitments, essential behavioural guidelines and references to relevant Standard Operating Procedures and Policy guidelines are provided.

Earlier in the morning, MIMOS met for a brief Q3 Townhall where Abdul Wahab shared on the importance of integrity in the blueprint for success, before the regular itinerary of celebrating success and announcement of recognitions. 



MIMOS FAMILY DAY 2011

MIMOSians, the real crown jewel



- crown jewel noun**
- A prized asset, achievement, or person (**Oxford Online Dictionary**)
 - The most desirable assets of a corporation (**WordNet: A Lexical Database for English**)
 - The divisions or products within a diversified corporation which are the most valuable in terms of sales, revenues and assets. (**BusinessDictionary.com**)



Chief Operating Officer En Abd Aziz Abd Kadir ready to light the cannon to kick off MIMOS Family Day.



FAMILY



Venue: **Sunway Lagoon, Petaling Jaya**

Date: **26 November 2011**

Time: **9:30 am till 6:00 pm**

Turnout: **500 MIMOSians with 1,100 family members**



A buggy carrying the MIMOS flag arrives at the "beach"



Ready to raid... MIMOSians and family members check in at Sunway Lagoon.



Ah, I might as well jump! Might as well jump! Go ahead, jump!



Participants warm up with aerobic exercises before the more fun activities



Releasing a whole year of stress.



Ramadan spirit comes alive at MIMOS

At MIMOS, Ramadan's myriad of philosophies and meanings were kept alive through activities from afternoon *tazkeerah* (reminders), *buka puasa* (breaking of fast), *tarawih* (special prayers at night), food distribution and a charity drive.



AFTER A LONG DAY... MIMOS CEO Datuk Abdul Wahab Abdullah serving dinner to the children from Rumah Amal El Amin at MIMOS Cafeteria.

Fasting bridges the gap between the rich and the poor, the sustained and the impoverished, the fulfilled and the needy. At MIMOS, Ramadan's myriad of philosophies and meanings were kept alive through activities from afternoon *tazkeerah* (reminders), *buka puasa* (breaking of fast), *tarawih* (special prayers at night), food distribution and a charity drive.

MIMOS hosted a *buka puasa* dinner for 40 children from Rumah Amal (charity home) El Amin, Rawang on 11 Aug. The event started soon after office with a *tazkeerah* by Ustaz Mohd Najib Abd Hafiz followed by the distribution of

duit raya (cash gifts) to the children. A sumptuous breaking of fast spread was served at the MIMOS Cafe, and was followed by prayers at the *musollah*.

A smaller scale *buka puasa* do was held for friends from the media on 16 Aug at the Dancing Fish Restaurant in Bangsar. It was attended by 20 members of the media from 12 organisations. The following day, Muslim MIMOSians were treated with takeaway *bubur lambuk* (traditional rice porridge with meats and spices). The spirit of Ramadan was shared with non-Muslims MIMOSians through the distribution of grub packages including those for vegetarians. The

food distribution activity was a first for MIMOS.

Ramadan values were further manifested through a charity drive that was run for almost half of the month. It was heartening to see non-Muslims MIMOSians joining their Muslim colleagues in contributing to the charity drive. Proceeds were used to buy foodstuffs, which were equally distributed to six orphanages on 25 Aug by MIMOS volunteers who convoyed to the respective destinations. [M](#)



Joyous Merdeka Raya afternoon tea


This year, MIMOS once again held its Aidilfitri gathering at the nearby Bukit Jalil Golf Resort. With Aidilfitri and Merdeka Day having fallen on consecutive days, the two festivities were comingled in one celebration on 13 Sept 2011.

Some 70 guests including Technology Recipients, collaborators, partners and 20 orphans from Rumah Pengasih Warga Prihatin, Kajang, joined about 650 MIMOSians, many of whom were dressed to impress in colourful traditional costumes, reflecting MIMOS' diverse people and rich cultural mix.

The hawker-style spread included traditional Aidilfitri delicacies, poached tapioca served with a choice of sweet coconut or spicy anchovy dip, and the all-time favourite roast lamb.

There were also stalls serving vegetarian food, noodles and tomato rice. "Birthday Boy", MIMOS CEO Datuk Abdul Wahab was given a surprise when his special day was announced by the emcee, before the ballroom joined in singing the birthday song while the CEO cut a special saffron rice cake.

The interdepartmental festive cookies and delicacies decoration competition was won by the Psychometrics team. A "best dressed" contest, complete with catwalk parade and impromptu jives was also held, with the ever-dapper facilities manager Ahmad Kontar Yusup clinching first prize. Attendees were also entertained by song-and-dance performances by children from Tadika MIMOS as well as MIMOS' talented karaoke singers.

The Merdeka-Raya afternoon tea gave an interesting slice of Malaysian way of life to the foreign researchers and scientists working at MIMOS, who were seen enjoying the food, people and atmosphere. 



MIMOS now operates at P-CMM Level 3




MIMOS has recently achieved Level 3 for Maturity of the People Capability Maturity Model (P-CMM). The Carnegie Mellon Software Engineering Institute (SEI) has published the Standard CMMI Appraisal Method for Process Improvement (SCAMPI) results at its website, <http://sas.sei.cmu.edu/pars/>.

With this achievement, MIMOS is now the only organisation in Malaysia and in this region (except China) that is operating at P-CMM Maturity Level 3.


Process areas at this level focus on establishing an organisational framework for developing the workforce. Model scope and appraisal ratings cover Competency

Analysis, Workforce Planning, Competency Development, Career Development, Competency-Based Practices, Work group Development and Participatory Culture.

SCAMPI is the official SEI method to provide benchmark-quality ratings relative to Capability Maturity Model Integration (CMMI) models. 

SMART way to boost confidence

MIMOS seeks to foster a healthy, vibrant and creative community at its campus. One of the programmes that have been held annually at MIMOS since 2008 is the Strategic MIMOS Achievers and Recognised Talents (SMART) Day. SMART Day 2011 was held on Saturday 10 Sept at the Auditorium and Seminar Rooms. The sessions were facilitated by the energetic and dynamic trainer U2 Kumar, who energised and inspired the children and parents alike.

SMART Day is a one-day programme that consists of Achiever's Award Ceremony, which rewards MIMOSians' children who excel in the UPSR, PMR, SPM and STPM examinations; Passion for Excellence, a motivational programme for students who will be sitting for the UPSR, PMR, SPM and STPM examinations; and Parenting Workshop, a unique opportunity for parents to discover the Secrets of the Art of Learning. 



GAP - Research and networking excellence

The Global Attachment Programme (GAP) has been established by MIMOS to offer experiential development to MIMOS scientists or researchers. GAP applicants would be attached to a renowned or selected scientific research centre, locally or abroad, for a maximum duration of three months. In this first part of this series on GAP, MIMOSFocus talked to GAP recipient Iskandar Bahari, 29, a researcher in the Cryptography Lab of Advanced Analysis & Modelling (ADAM) Cluster, who went to Royal Holloway, University of London (RHUL)'s Information Security Group (ISG) from June until August 2011.

RHUL is a well-known university that provides courses in Information Security; and ISG has some of the world's best researchers in Information Security and Cryptographic. As part of the GAP itinerary, Iskandar also attended summer school on Design and Security of Cryptographic Algorithms and Devices in Albena, Bulgaria.

Iskandar graduated with a Bachelor of Mathematical Sciences from International Islamic University Malaysia (IIUM) and had just completed his Master of Computational and Theoretical Science (Research) in Quantum Cryptography, also from IIUM via MIMOS' Strategic Training, Advancement and Recognition (M*STAR) programme. The third sibling in a family of nine children joined MIMOS in 2007. Having a deep interest in mathematical modelling especially its application in cryptography, Iskandar worked in the field of Quantum Cryptography during the first four years in MIMOS, focusing on the theoretical aspects like protocol, performance and security analysis.

Presently, he is assigned to conventional cryptography projects which also involve mathematics.

Iskandar was elated that despite having to juggle work and family commitments, he completed his Masters programme and managed to publish a few papers in high-impact journal like "Optics Communications" and "Physics Letters A" together with his supervisor and friends. But before you go thinking that Iskandar's life is all academic books, this industrious son of a FELDA settler reveals that he enjoys hiking and jungle trekking whenever he has the chance. Iskandar is also an avid fan of martial arts and is practicing karate-do for fitness and discipline.

Asked to recount on GAP, Iskandar said he was assigned to learn about security analysis of block cipher in order to strengthen his knowledge and competency in the area. He worked with Dr Carlos Cid, a lecturer and well-known researcher in symmetric cryptography especially in algebraic cryptanalysis of block and stream ciphers.

"During the programme and summer school, I gained new knowledge and also made many new friends. Dr Carlos was very generous and helpful to guide me on how to work about on the subject. He also shared his experiences and thoughts on past and current issues in cryptographic research," Iskandar said.

"I also had a chance to meet a few 'big names' in cryptography like Mihir Bellare (provable security), Joan Daemen and Vincent Rijmen (co-designers of Advanced Encryption Standard - AES), Orr Dunkelman (cryptanalytic methods); and managed to make some connections to collaborate with in the future," added




Iskandar gained new knowledge and made connections with 'big names' in cryptography during his three-month London attachment.



Iskandar with his colleagues at his MIMOS office.

the father of a one-year old boy.

Iskandar said that his personal career vision was to accomplish something substantial everyday to become more skillful and an expert in Mathematics and Cryptography so he can serve the country. 

First-rate sharing of knowledge at KTW 2011

With distinguished keynote speakers and ardent presenters discussing on highly relevant and inter-related topics, participants of Knowledge Technology Week (KTW) 2011 largely felt that the event was the most successful edition of the event since it was first organised by MIMOS in 2009.



DISTINGUISHED PRESENCE... Chairman of UNITEN Board of Directors Tan Sri Leo Moggie, MIMOS Head of Knowledge Technology Cluster Dr Dickson Lukose and Prof Klaus Tochtermann of Leibniz Information Centre for Economics and Christian-Albrechts-University Kiel, Germany.

The premier event in Malaysia in the areas of Artificial Intelligence and Semantic Technology, KTW this year was held on 18-22 July. It was jointly organised by MIMOS, Universiti Tenaga Nasional (UNITEN)'s College of IT and Nota Asia.

The event included seven sub-events; namely the Third Malaysian Joint Conference in Artificial Intelligence (MJCAI), Third Semantic Technology and Knowledge Engineering Conference (STAKE), Artificial Intelligence Tutorials (AIT), Artificial Intelligence Workshops (AIW), Artificial Intelligence Special Sessions (AISS), Artificial Intelligence Demo (AID) and PhD Symposium (PhDSymp). Keynote speakers included some of the most authoritative

speakers in their respective fields like Prof Eric Tsui of Hong Kong Polytechnic University, Austria's University of Graz Professor of Psychology Dr Dietrich Albert, Dr Johannes Keizer of United Nation's Food and Agriculture Organisation and Dr Sheng-Chuan Wu of Franz Inc, USA, to name a few.

Most, if not all the topics, such as "challenges for orchestrating and delivering cloud-based knowledge services", "hyper-scalable knowledge server" and "e-learning based on metadata, ontology and competence-based knowledge space theory", were also very relevant to the work currently being done at MIMOS.

The paper presentation session at



MJCAI and STAKE generated various interesting discussions, while the AI demo sessions featured a refreshing array of new ideas and discoveries. The PhD Symposium saw a lively sharing, discussion and exploration of research objectives and challenges between PhD candidates and the panel of established international researchers. 



KRSTE.my wins bronze award in Hong Kong

KRSTE.my (pronounced “kris dot my”), an intelligent web-based resource centre developed by MIMOS, has recently won the Bronze Award at the Outstanding Knowledge Management Project Award 2011 in Hong Kong.

Organised by Knowledge Management Research Centre of Hong Kong Polytechnic University, the award was introduced in 2011 to recognise individuals or teams who have demonstrated mastery of Knowledge Management techniques in their projects to fulfil their organisation's or business goals.

KRSTE.my, which is short for Knowledge Resource for Science and Technology Excellence, provides intelligent collaborative knowledge management and learning services platform through integration with various databases and systems throughout the country, to serve as a single-point access to information on Science, Technology and Innovation (STI).

The system turns information silos into integrated knowledge resource by collating information on STI research work, resources, funding, and all research results as well as researchers' CVs into a national repository; classifying them according to the Malaysian Research and Development Classification System (MRDCS).

KRSTE.my is an initiative of MOSTI and is spearheaded by Malaysian Science and Technology Information Centre (MASTIC), a unit under MOSTI. The system has gone live at <http://krste.my> since December 2009 with the current version completed in March 2011. It was officially launched by MOSTI Deputy Minister Datuk Haji Fadillah Yusof on 29 Nov 2011. 



Taking nanoelectronics to a greater scale

When Prof Dr Masuri Othman moved from Universiti Kebangsaan Malaysia (UKM) to MIMOS in 2006, his slight bemusement was explicable – it was a migration from a “free-for-all” playground to a corporative, KPI-oriented environment.

His new leader, CEO Abdul Wahab Abdullah (now Datuk), was equally new at MIMOS, but was fresh from the industry. MIMOSFocus recently had the privilege of talking with Prof Masuri where he shared on his notable journey in knowledge and discovery. “It was difficult,” the affable professor recounted.

Prof Masuri was with UKM from 1980 to 2006, first as a lecturer, then a professor in Microengineering and Nanoelectronics. When he checked in at MIMOS, it was a major change of environment. His academia background had seemed incongruous with MIMOS’ industry-oriented approach. “But things went smoothly with guidance and help from industry friends,” he said. “And before long, I was able to align and work together with my new team,” he acknowledged.

Currently on secondment to MOSTI; reporting to the Minister’s Office, Prof Masuri is to drive technology pre commercialisation. He now helps MOSTI in establishing policies, strategies and framework, and lately on the creation of an investment committee under Agensi Inovasi Malaysia (AIM) Governance Council chaired by the Prime Minister. Naturally, he finds this very interesting and timely since all his experiences in university and MIMOS are put to good use. Prof Masuri’s key role now is to spearhead the setting of the committee in order to streamline the funding ecosystem such that government investments in R&D will give maximum returns, which in turn will create wealth for the country towards transforming



into a high income nation.

When asked on nanotechnology’s contribution to Malaysia’s competitiveness, Prof Masuri said that at MIMOS the focus is on product innovation. Micro-nano is just one of the thrust areas through which the company is coming up with the big solution – the technology platforms. “I was the head

of micro-nano cluster and I worked closely with other clusters to create technology platforms that are useful for the industry to create products which are customisable in many applications,” he disclosed. “Micro-nano is and will be very important area that government has invested in,” he added.

The Nanoelectronics Centre



at MIMOS works with the National Nanotechnology Directorate in MOSTI and all nano Centres of Excellence (CoEs) in the country in order to come out with R&D findings that can be commercialised. Nanotechnology is a generic platform that can be used in many applications. For instance, in MIMOS the technology is used

in developing nanosensors and devices for storing charges for applications such as in microenergy.

Prof Masuri said that nano is an emerging technology which promises a lot of future applications which can be leveraged on. “However, the critical issue is translating the fundamental R&D into commercialisable innovations due to many factors such as stability, reproducibility of the devices or system built from nanotechnology. In addition, the manufacturing of nanodevices and nanosystems are still a big issue in terms of manufacturability – consistency, yield, robustness, cost effectiveness, etc,” he said.

Prof Masuri said that MIMOS’ R&D&C programme is now a benchmark for other institutions in Malaysia and for this, MIMOSians have always been invited to be resource or reference person. In the last five years MIMOS has developed a structured approach in R&D incorporating world class industry processes such as Six Sigma, CMMI, PCMM, putting the company at par with global players, he said.

The professor’s passion for his area of expertise was palpable throughout our conversation. A firm believer that IP is an important corporate asset, Prof Masuri said protection of IP is crucial in this knowledge-based economy. “One of my roles at the cluster is to build the portfolio of IPs for MIMOS. As you can see in the past few years, MIMOS’ position in IP filing is showing drastic improvement,” he said.



For the record, in 2010 Malaysia was ranked 25th at Patent Cooperation Treaty (PCT), where out of the total 334 patents filed by Malaysian applicants, 135 were filed by MIMOS. A year earlier, Malaysia was at 30th rung while in 2008 at 33rd spot. Prof Masuri can proudly affirm that a healthy section of the IPs filed by MIMOS is micro-nano-related. The total patent disclosure count for MIMOS Nanoelectronics Centre has also increased from 24 in 2006 to 190 in 2010, of which six patents have been granted by MyIPO. To boot, the National CoE status awarded by MOSTI in June 2011 is an accomplishment in itself and a clear recognition of MIMOS’ continuous efforts in R&D on nanoelectronics. ■

MIMOS Nano Centre to be key catalyst for NanoMalaysia

The state-of-the-art MIMOS Nanoelectronics Centre is set to act as a catalyst for the NanoMalaysia Programme.



MOSTI Minister Datuk Seri Dr Maximus Ongkili and Secretary-General Dato' Madinah Mohamad getting a brief on MIMOS' nanotechnology products from Nanoelectronics Director Saat Shukri Embong at the recent NanoMalaysia Summit.

In line with the national aspiration of making nanotechnology the enabling engine for the new economic growth, the centre is focusing on incorporating Nanotechnology to its platforms which are expected to directly contribute towards the National Key Focus Areas namely in agriculture, health, education, government services and communications.

Current research activities of the centre, which was recently certified as one of five national Nanotechnology Centres of Excellence, include nanomaterials growth, fabrication of nanostructures, preparation of nanoparticles and nanocomposites as

well as characterisation, testing and integration of innovative nanomaterials and nanostructures in Micro-Nano Electronic Mechanical Systems (NEMS/MEMS). Its current capabilities include both top-down and bottom-up nanomanufacturing on various substrate including silicon, glass, ceramics, polymers, etc.

In the pipeline are plans to develop more devices and materials for sectors such as agriculture, aquaculture, the environment, health, safety and defense. The centre works closely with the National Nanotechnology Directorate at MOSTI to provide a common platform for universities, research centres

and industries aimed at building collaborations towards a concerted effort in developing the nation's nanotechnology capabilities. This also involves establishing MIMOS as the gateway for international collaboration in nanotechnology research. More advanced Failure and Material Analysis equipment will be added in the next few years to further improve accessibility of these services to local companies and MNCs in line with MIMOS' plan to be the preferred shared facility in nanofabrication, nanocharacterisation and full-scale manufacturing of nano-based devices for the country as well as being the referral centre in nanoelectronics for the region.

A quick look at the centre's four-year roadmap reveals plans developed in line with global market expectations. In 2012, efforts will focus on developing gas and heavy metal sensors and digital farming intelligent systems; while 2013 will see further advancement of its sensors to target applications such as biosensors, remote environmental monitoring and food traceability. In 2014 the focus will be on body nutrient sensors, livestock and plant disease monitoring systems; while 2015 will see the sensors developed into a reconfigurable platform, with focus on wearable bio-medical devices integrated with ubiquitous sensors.

The centre presently has 34 people, 11 of whom are PhD holders; while its Wafer Fabrication plant employs 200 people. ■

By no means insignificant

Other events and happenings that make MIMOS



2 Jul

Information, Communications and Culture Minister Dato' Seri Utama Dr Rais Yatim launching the Kampung Wi-Fi project in Kampung Puom, Jelevu. MIMOS provided the last-mile connectivity with the WiWi Outdoor Access Point.



5 Jul

Deputy Prime Minister Tan Sri Muhyiddin Yassin being briefed by Vice-President of Product Development and System Integration Mohd Ali Mustafa on the Wireless Sensor Network at an exhibition held on the sideline of the Economic Transformation Programme (ETP) Update at the Kuala Lumpur Convention Centre.



22 Jul

Facilities-OSSA Manager Mohd Fadzil Ahmad receiving the Gold (Class II) Award at the

MSOSH-OSH Award presentation ceremony held in Petaling Jaya. The annual awards recognise member organisations which have achieved commendable safety and health records and/or have shown improvement in occupational safety and health processes through sound safety and health management systems.



26 Jul

MIMOS handed over T-Boxes to four Technology Recipient companies; namely Cloud Connect Sdn Bhd, Nobelsys Sdn Bhd, Quantum Intelli Code Sdn Bhd and System Conglomerate Sdn Bhd in a simple yet significant ceremony held at MIMOS.



25 Oct

Prof Daniel Katz of University of Chicago and Argonne National Laboratory delivering a talk on "Cyberinfrastructure and its Usage at Local, Regional, and National Levels" at the Tengku Datuk Dr Mohd Azzman Shariffadeen Auditorium.



30 Oct

Deputy MOSTI Minister Datuk Hj Fadillah Yusof launching the K-Masjid project at Masjid Raudhatul Mardhiah in Parit, Perak. With him is Parit Member of Parliament Tuan Mohd Nizar Zakaria.



15 Nov

MIMOS' Mohd Ali Mustafa and Zafisah Hanafi in action during the MIMOS-MSC Trustgate Ping-Pong Friendly at MIMOS campus. MIMOS won the match.



19 Nov

Children of MIMOSians perform a theatrical sketch, "Ali Baba & Forty Thieves" during the Tadika MIMOS Graduation Ceremony held at the Tengku Datuk Dr Mohd Azzman Shariffadeen Auditorium.

Malaysia set to play central role in defence industry

A high-level delegation from the Ministry of Defence led by its minister Datuk Seri Dr Ahmad Zahid Hamidi visited MIMOS on 15 Aug. The entourage included Armed Forces Chief Gen Tan Sri Zulkifeli Mohd Zin, Air Force Chief General Tan Sri Rodzali Daud, Defence Deputy Secretary-General (Policy) Datuk Dr Ismail Haji Bakar and Malaysian Defence Industry Division Undersecretary Dr Kogila Balakrishnan as well as senior ministry officials and armed forces officers.

In his speech Ahmad Zahid said that Malaysia was set to play a central role in local and international defence industry. The near future would see closer cooperation between the Malaysian defence industry and ICT, he said.

The minister said that Malaysia had planned to realise military satellite in 10 years' time. He stressed that the emphasis on technology in military was not meant to wage war against anyone.



"Knowledge and technology should be universalised for world peace, he said. In parting, Ahmad Zahid also said that MIMOS shouldn't compete but enhance the industry. [www.mimos.gov.my](#)



Tun Abdullah makes private visit to MIMOS

On 24 Aug, former Prime Minister Tun Abdullah Ahmad Badawi made an unofficial visit to MIMOS. Tun Abdullah, who straddled Tengku Datuk Azzman Shariffadeen's and Datuk Abdul Wahab Abdullah's MIMOS leadership eras when he was Prime Minister from 2003 to 2009, was taken on a mini technology tour and given a brief on MIMOS' current work and future strategies. He also had a discussion with Abdul Wahab and MIMOS senior officials. [www.mimos.gov.my](#)



MIMOS continues to receive important visitors

Visits by important individuals and groups are regular, if not daily events at MIMOS



20 Jun

VANTAGE POINT... Zimbabwean Foreign Minister Simbarashe Mumbengegwi with Director of Smart Partnership Hub Lira Ralebese of Lesotho browsing through MIMOS' pictorial book, "A Journey Beyond Frontiers" while MIMOS Chief Operating Officer Abd Aziz Abd Kadir looks on.



29 Sept

STRATEGIC TALK... MIMOS CEO Datuk Abdul Wahab Abdullah with Institute of Strategic and International Studies (ISIS) CEO Dato' Dr Mahani Zainal Abidin during her visit.



4 Oct

SECURITY ISSUES... Maj Gen (Rtd) Dato' Ir Ibrahim Bahari, CEO of Aviation Design Centre, a subsidiary of National Aerospace & Defence Industries Sdn Bhd (NADI) chats with MIMOS Chief Technology Officer Thillai Raj Ramanathan and Chief Operating Officer Abd Aziz Abd Kadir during NADI's visit to MIMOS.



3 Nov

KEEPING PEACE... MIMOS CEO Datuk Abdul Wahab Abdullah with Royal Malaysian Police's Director of Logistics Dept Dato' Pahlawan Zulkifli Abdullah during the police department's visit to MIMOS.



7 Dec

LIVE DEMO... MOSTI Secretary-General Dato' Madinah Mohamad accompanied by MIMOS CEO Datuk Abdul Wahab Abdullah being briefed on the MIMOS wireless sensor for Precision Agriculture by staff researcher Airul Azha Abd Rahman.



19 Dec

OUR FORTE... A delegation from MARDI led by Director-General Datuk Dr Abd Shukor Abd Rahman listening to a brief on MIMOS technologies by system architecture senior staff engineer Ahmad Nizar Harun.



Vision

To be a premier applied research centre in frontier technologies

Mission

To pioneer innovative information and communication technologies towards growing globally competitive indigenous industries

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