COMMUNITY PROGRAMME
Erosion and Sea Level Rise at Batu Pahat, Johor
Page 6

Intense Biomass Fire Haze Smoke Strikes in Malaysia in September 2015
Page 10-11

UKM in Space
Page 12-13

Helicopter Smart Control Competition
Page 17
EDITORIAL TEAM

Advisors:
Prof. Dato’ Dr. Sharifah Mastura Syed Abdullah
Assoc. Prof. Dr. Mohd Nizam Mohd Said

Chief Editor:
Sr. Dr. Khairul Nizam Abdul Maulud

Editor:
Dr. Md Firoz Khan

Editorial Support:
Farhanah Md Isa
Nurul Hajijah Hair
Noor Hidayu Sukma Salleh
Khirunnisa Mazelan

Designer:
Nuha Hadaina Mohd Noor

Cover Photo:
2015 Visiting Program for impacted community by coastal and sea level rise around Batu Pahat, Johor Malaysia

Published by:
Institute of Climate Change (IPI)
Earth Observation Centre Building,
Universiti Kebangsaan Malaysia,
43600 UKM Bangi,
Selangor Darul Ehsan, MALAYSIA.
Tel. No: 03-8921 6772/6097 Fax: 03-8921 6098
Email: pghikp@ukm.my
Website: http://www.ukm.my/ipi

Publish twice a year
Message From Director

Bismillahirrahmanirrahim
Assalamualaikum wbt

Alhamduillah for the successful of the first issue of the Bulletin Earth to Space under the Institute of Climate Change. This inaugural bulletin is intended to express my gratitude to all researchers and support staff on the success and achievements of the Institute for the years 2014 until June 2015. The Earth to Space Bulletin will be published twice a year and show all activities of the Institute, popular articles in the field as well as awards and achievements.

All the essential information shown in this Bulletin will highlight the image of the Institute as a Centre of Excellence at Universiti Kebangsaan Malaysia.

Thank you.

Prof. Dato' Dr. Sharifah Mastura Syed Abdullah
Director
Institute of Climate Change

---

Message From Chief Editor

Bismillahirrahmanirrahim
Assalamualaikum wbt

The first IPI Bulletin (Earth to Space) shows the strong team spirit among the IPI staff. The Special edition of this bulletin includes all activities and programs that have been carried out from 2014 until June 2015. Besides that, I also expect with the information provided in this Bulletin may have an impact to readers, especially to all the stakeholders of IPI.

I would like to express gratitude to all the editorial who have worked hard to collect and provide material for the production of the first edition of this bulletin. Well done and congratulations.

Thank you.

Sr. Dr. Khairul Nizam Abdul Maulud
Chief Editor
Bulletin IPI
# Table of Contents

**Editorial Board**

**Foreword**

**Table of Contents**

- Erosion and Sea Level Rise at Batu Pahat, Johor
- IPI Receives New Students for Semester 1 2015| 2016
- Intense Biomass Fire Haze Smoke Strikes in Malaysia in September 2015
- Ukm in Space

**Activities & Programmes**

- Visit from a Representative of Japan Aerospace Exploration Agency (JAXA), Mr. Hideshi Kakimoto
- Technical Visit to Langkawi National Observatory (ONL)
- Technical Visit to Universiti Malaysia Sarawak (UNIMAS)
- 2014 Angkasa Bowling Carnival
- Entrepreneurship and ICT Carnival
  - “Hari Falak Melaka”
  - Technical Visit to Universiti Teknologi Malaysia, Skudai Johor
- Space Weather Research Enhancement Workshop
- AGI System Tool Kit Seminar: Modelling the Space Environment and its Effects Using STK Seet
- Helicopter Smart Control Competition
- Technical Talk by Astronautic Technology (M) Sdn. Bhd.
- Annual Grand Meeting of Angkasa Student’s Association (ASA)
- 2014 Angkasa Postgraduates Research Seminar (SPSA2014)
- 2014 Journal Publication Workshop
- Public Lecture: “The International Politics of Climate Change”
- Public Lecture: “Long Term Impacts of Commercial Logging On Malaysian Forest Ecosystem”
Public Lecture: “The Effects of Ocean Acidification and Warming on Coastal Marine Animals”

1st Academic Research on Palm Oil Sustainability (ARPOS) Network Symposium

Opening Ceremony of Open Roof Ventilation Green House, Free Air Carbon Dioxide Enrichment (FACE) & Soft Launch Modules

Understanding and Responding to the Climate Change for Policy Makers Short Course.

UKM-YSD Chair in Climate Change Grant Application Briefing and Public Lecture Entitled “Climate Change and Its Impact On The Ocean Around Malaysia” at University Malaysia Terengganu (UMT)

UKM-YSD Chair in Climate Change Grant Application Briefing at University Malaysia Sabah (UMS)

Geographical Information System Workshop

Strategic Negotiations Workshop

Awards & Recognition

Langkawi Award

Researches Grants
COMMUNITY PROGRAMME

EROSION AND SEA LEVEL RISE AT BATU PAHAT, JOHOR

Date: 2nd & 3rd June 2015
Venue: Kg. Sungai Ayam Laut Batu Pahat, Johor
Organiser: UKM-YSD Chair in Climate Change, Institute of Climate Change

Over the last five years Niche Climate Change has been emphasized on the adaptation of sea level rise and coastal erosion around Batu Pahat as one of the core areas of the study. A total of three grants received from UKM and three external grants, which are from the UKM-YSD Chair in Climate Change, and two from the Department of Irrigation and Drainage has been allocated to expand and strengthen the adaptation and sea level rise research in this area with total amount supported up to RM 350,000.00.

There are six different topics that are looking at the matters which are “The Impacts, Adaptation and Vulnerability of Climate Change due to Changes in Coastal Systems”, “Intelligent Autonomous Loss Prediction of Land Usage (InLoss) for Coastal and Low Lying Areas: An Image Processing Approach”, “Economic Assessment of Climate Change Adaptation in the Coastal and Water Resources Sector”, “Coastal Shoreline Changes and Sea Level Rise at Inundation Area”, “The Integrated Shoreline Management Plan for the West Coast of Johor”, and last but not least “National Coastal Erosion Study in Malaysia.”
Thus, this community program that was held on 2-3 June 2015 has been successfully organized by the UKM-YSD Chair in Climate Change in cooperation with the Earth Observation Centre, Institute of Climate Change, UKM-YSD Chair for Sustainable Development: Zero Waste Energy and Endowment Chair MPOB-UKM. A total of 50 people involved were mainly researchers from UKM, Yayasan Sime Darby, Marine Department Batu Pahat, Department of Irrigation and Drainage, Department of Environment and National Hydraulic Research Institute of Malaysia. The UKM Vice Chancellor, Deputy Vice Chancellor, Research and Innovation, Tan Sri Dr. Wan Mohd Zahid Mohd. Nordin, Governing Council Member of Yayasan Sime Darby, Puan Hjh Yatela Zainal Abidin, Chief Executive Officer of Yayasan Sime Darby also attended the program.

The main objective of the program was to meet with the community around Batu Pahat especially in Kg. Sungai Ayam Laut who affected by the erosion and sea level rise. Also, focus is given to the other two villages in agricultural areas that were badly affected by the erosion and sea level rise which are Kg. Tanjung Segenting and Kg. Sg. Punggor. During the program, discussions were made with the community on the mitigation measures to resolve this issue as well as national adaptation of policy implications.

Earlier, the participants were taken for a boat ride along the Batu Pahat shoreline to see the affected areas of the erosion and sea level rise. From the boat ride, the agricultural areas especially the palm oil plantation owned by smallholders are clearly seen and affected by the salt water intrusion.

The UKM Vice Chancellor, during his speech mentioned on his high hopes that with the research grants acquired, they can find and produce the best solution to deal with the erosion and sea level rise in this area. He also stated that the research findings will be submitted to the government to help them in preparing national policies so that the mitigation action can applied here in Batu Pahat, Johor.
Visit to the reacreational area at Sg. Punggor that badly affected by the sea level rise.

Activities with the kindergarten children by UKM Researcher and facilitators

UKM, Prof. Datuk Dr. Noor Azlan Ghazali with Mohd Adam Abdullah, the coloring contest winner from TABIKA Kg. Sungai Ayam Laut

Tan Sri Dato’ Dr. Wan Mohd Zahid Mohd Noordin presented certificates of appreciation to the agencies involved in the programmes
Institute has received 4 new students to pursue their studies at Masters and PhD level in Space Science and Astronautic fields. In order to promote the program, the Institute intends to increase the number of students’ enrolled especially the local candidates to produce more experts in Malaysia.

There are the full time programmes offered and the application is twice a year for sessions of September and February. For further information related to applications and programs offered can visit the website of the Space Science Center (www.ukm.my/Angkasa) and all applications follow shall be made by GUEST System (www.ukm.my/Guest)
Intense Biomass Fire Haze Smoke Strikes in Malaysia in September 2015

By -: Dr. Md Firoz Khan

Southeast Asian region particularly Malaysia, Brunei, Singapore and as well as Indonesia have experienced longer period of intense haze episode this year in September. Smog has originated because of terrible burning the agricultural waste and forests in Sumatra and Kalimantan of Indonesia. The smoke from the burning activities at the hotspots spread around the ambient air and influenced the concentration of PM2.5 (particle aerodynamic diameter less than or equal to 2.5 micron) and PM10 (particle aerodynamic diameter less than or equal to 10 micron). PM2.5 poses the detrimental impact on human health as it can travel long distance and through inhalation it can cause the cardiovascular and respiratory related diseases. The World Health Organization recently reported that out of total global deaths, 1 out of 8 is due to the air pollution burden. If we look into the air pollution index in Singapore (pollutant standards index-PSI) and Malaysia (air pollutants index-API) in September 2015, the level of pollution crossed the unhealthy level (API > 300) in most of the time in both countries. As a result of the intense haze and unhealthy level of air pollution in September 2015, the state governments in Malaysia announced the closing of the primary and secondary schools and several institutions of higher learning throughout the country. Eye irritating, coughing and other respiratory related difficulties to the children and elderly people due to inhalation of PM2.5 smoke particles were reported. Citizens were suggested to reduce outdoor activities and remain indoor. The local people were instructed to open windows and doors letting fresh air circulation till to have clean air around. The atmospheric circulation is usually stables in the early morning and nighttime that causes the contraction of planetary boundary layer height. During this particular time, the concentration of particle pollution increases significantly compared to the day-time. Therefore, an extra-precaution is necessary even in the early morning and nighttime events. Historically, haze or lower visibility has been reported in many parts of the world. In December 1952, great smog or widely known as killer smog was formed in London, UK, due to the alarming level of particle and sulfur dioxide pollution. This great smog causes death more than 4000 people. People in London extensively experienced coal burnt to warm up the houses that was believed to be multiplied by the calm ambient condition. Another form of haze is known as the photochemical smog that causes visibility reduction in California, Los Angeles, USA. The exhaust from motor vehicles and sunlight are the key factors in photochemical smog. However, haze pollution in the Southeast Asia primarily occurs due to the biomass fire hotspots. The biomass fire counts...
and locations have been depicted in the Figure for September 2015 obtained from NOAA-18 satellite launched by the National Oceanic and Atmospheric Administration (NOAA). It is evident that the fire counts were more conquered in Sumatra and Kalimantan regions and wind blew in the south-westerly direction in the Malaysian region. We have established a theory through the evidences of a number of our papers that were published from the Institute of Climate Change (IPI) in the Universiti Kebangsaan Malaysia (UKM) that the fire events in south-west monsoon originated from the Indonesian region. The polycyclic aromatic class of organic aerosol greatly increases during this period compared to the compositions of the heavy metals.
The UKM in Space (UKM DI ANGKASA) is a one-day program, initiated by the Principal Research Fellow of ANGKASA, YBhg. Dato’ Dr. Sheikh Muszaphar Shukor Al-Masrie and also known as Malaysian First Astronaut in the history. This program was launched in commemoration of the 7th National Astronaut Day aiming to inspire the young people to venture into space science and to attract young talented scholars in this field as aspired by the University. The program was conducted at the Dewan Canselor Tun Abdul Razak (DECTAR), Universiti Kebangsaan Malaysia on 20th October 2014.

Along with Malaysian First Astronaut, three other astronauts namely Dr. Chiaki Mukai (Japan), Salizhan Sharipov (Rusia) and Klaus-Dietrich Flade (Germany) were also invited as special guests in the program.

The program inaugurated officially by the former Prime Minister of Malaysia, Tun Dr. Mahathir Mohamad. In his speech, he pointed out that acquiring knowledge through other languages, including English, would not cause any harm on Malaysian or Malay language. The former prime minister emphasized on English language as a medium of learning science and mathematics and is not at all unpatriotic rather it is necessity so that the country and its people could go far with the acquired knowledge.

“Only if we contribute knowledge and information to the world can we claim to be a developed country,” – Tun Dr. Mahathir Mohamad
After the inaugurating ceremony, Tun Dr. Mahathir accompanied by the top management of UKM visited the Exhibition Booth around the location of the program. The main purpose of the exhibition was to share the information on space science in order to enhance the public interest and awareness particularly to the younger participants. Participants are allowed to ask questions to the special guest as well as the experts in the Space Science Centre (ANGKASA) UKM, Angkasa4Komuniti (ANGKASA Community Program), Malaysia’s First Astronaut, Kompleks Falak Al-Khawarizmi, Persatuan Falak Syar’i Malaysia and JemariSeni Sdn. Bhd.

There was further attraction to the participants was the Rocket Workshop and Flight Simulator which was a program in the form of practical workshops and exhibition. It was an opportunity for participants to manage their own equipment simulators, as well as come across knowledge and information from the exhibition. From this program, participants were introduced to Space Science Technology, Space Flight Simulators and experience of the Astronauts. Moreover, the participants experienced on the interaction with their own movements by use of the interactive kinetic sensor technology games.

In the evening session, a special meeting between researchers of UKM and Japanese Astronaut, Dr. Chiaki Mukaiwas was held at the Bilik Majlis, Canselory Building UKM. This program was organized to share the experience of the astronaut and motivate young and enthusiast researchers to carry out research on the ISS (International Space Station).

At the same time, a Dialogue Session between UKM students and visiting Astronauts Salizhan Sharipov from Germany and Klaus-Dietrich Flade from Russia was held at DECTAR. This dialogue session provides an exceptional opportunity to the selected students to meet and listen to astronauts’ ISS experience.

About 3000 participants from schools and universities students, researchers as well as general people were attended the UKM in Space program and was broadcast and wide coverage by various media.

1Space Science Centre (ANGKASA), Institute of Climate Change (IPI), Universiti Kebangsaan Malaysia (UKM)
2Earth Observation Centre (EOC), Institute of Climate Change (IPI), Universiti Kebangsaan Malaysia (UKM)
3Department of Civil & Structural Engineering, Faculty of Engineering and Built Environment (FKAB), Universiti Kebangsaan Malaysia (UKM)
VISIT FROM A REPRESENTATIVE OF JAPAN AEROSPACE EXPLORATION AGENCY (JAXA), MR. HIDESHI KAKIMOTO.
Date: 20th February 2014
Venue: Space Science Centre (ANGKASA), Kompleks Penyelidikan UKM
Organizer: Space Science Centre (ANGKASA) & Japan Aerospace Exploration Agency (JAXA)

TECHNICAL VISIT TO LANGKAWI NATIONAL OBSERVATORY (ONL)
Date: 17th March 2014
Venue: Langkawi National Observatory (ONL), Kedah, Malaysia
Organizer: Space Science Centre (ANGKASA) & Langkawi National Observatory (ONL)

TECHNICAL VISIT TO UNIVERSITI MALAYSIA SARAWAK (UNIMAS)
Date: 28th March 2014
Venue: UNIVERSITI MALAYSIA SARAWAK (UNIMAS), Sarawak
Organizer: Space Science Centre (ANGKASA) & Universiti Malaysia Sarawak (UNIMAS)
2014 ANGKASA BOWLING CARNIVAL
Date: 19th April 2014
Venue: Ampang Superbowl, Mines Shopping Mall, Serdang,
Organizer: Space Science Centre (ANGKASA)

2014 KARNIVAL KEUSAHAWANAN DAN ICT
Date: 26th April 2014
Venue: Sekolah Agama Menengah Hulu Langat, Cheras
Organizer: Sekolah Agama Menengah Hulu Langat, Cheras & Space Science Centre (ANGKASA)

HARI FALAK MELAKA
Date: 10th May 2014
Venue: Kompleks Falak Al-Khawarizmi, Melaka
Organizer: Kompleks Falak Al-Khawarizmi, Melaka
TECHNICAL VISIT TO UNIVERSITI TEKNOLOGI MALAYSIA, SKUDAI JOHOR
Date: 17th June 2014
Venue: Universiti Teknologi Malaysia, Skudai Johor
Organizer: Space Science Centre (ANGKASA) & Universiti Teknologi Malaysia, Skudai Johor

SPACE WEATHER RESEARCH ENHANCEMENT WORKSHOP
Date: 23rd June 2014
Venue: Pusat Penyelidikan Institut Alam Sekitar dan Pembangunan (LESTARI) UKM, Langkawi
Organizer: Space Science Centre (ANGKASA)

AGI SYSTEM TOOL KIT SEMINAR: MODELLING THE SPACE ENVIRONMENT AND ITS EFFECTS USING STK SET
Date: 4th September 2014
Venue: Seminar Room, Level 5, Kompleks Penyelidikan UKM
Organizer: Space Science Centre (ANGKASA)
The history of the helicopter workshop and competition was started in the year 2012 when ANGKASA UKM hosted a Visiting Astronaut Program. This program involved Dr. Daniel T. Barry, a former NASA astronaut, a veteran of three space flights, four spacewalks and two trips to the International Space Station. Besides giving a talk to almost 1000 participants consisting primary and secondary school students, he has also led and trained the facilitators in handling the helicopter workshop and competition.

The workshop aimed to provide a platform for participants to learn problem-solving skills that work in a wide variety of math, science, and engineering situations, to develop teamwork skills by simultaneously building hardware and software and to inspire students to learn more on their own and take the skills learned in the workshop to higher levels. Two groups with highest points have been awarded with prizes and opportunity to meet the Prime Minister of Malaysia, Y.A.B. Datuk Najib Razak in PWTC. Due to the success of this program, ANGKASA has continued it effort to host this event yearly.

On 21 June 2014, ANGKASA and Department of Electric, Electrical and System Engineering (JKEES), FKAB UKM have organized the Helicopter Smart Control Competition in conjunction with the Karnival Komuniti Bandar Baru Bangi ‘UKM4Bangi’. The competition was held at Uptown Sports, Persiaran Jaya, Sg. Ramal Dalam, Bangi. This program successfully attracted 20 youngsters mostly from Bandar Baru Bangi community.

Participants were divided into 10 groups. Each group consists of four people and a facilitator. Facilitator guided the group members in handling the helicopter and Arduino during the workshop session. Each team was provided with a computer, breadboard, microprocessor, visible LED light, infrared LED light array, battery pack, amplifier, and a Syma S107G helicopter. Then, participants need to learn how to build a simple circuit that blinks the visible LED, familiarize themselves with the different electronic components and learn how to program the microcontroller. After that, they were guided by the facilitator to build more complicated circuit that used a power MOSFET to drive an LED array. Every team needed to load their own software into the microcontroller that issues commands to their helicopters (via the IR LED array circuit). The teams control the helicopters through this interface and gained a complete understanding on the variables required for control and automation. Finally, the teams have to perform a specific autonomous maneuver with the helicopters, such as a takeoff, mid-air box, and landing.

The workshop ended with a competition where each teams have to present their techniques and programming skills on flying the helicopter. Three groups with highest points were selected and received awards for their achievement in handling the helicopter. Positive feedbacks were received from the participants and community in Bandar Baru Bangi. This year, 2015, ANGKASA jointly organized this workshop and competition with Politeknik Banting Selangor. This workshop and competition will be participated by their students and will be hosted on 7-8 November 2015 in Politeknik Banting, Selangor.

---

1 Space Science Centre (ANGKASA), Institute of Climate Change (IPI), Universiti Kebangsaan Malaysia (UKM)

2 Department of Electrical, Electronic & Systems Engineering, Faculty of Engineering and Built Environment (FKAB), Universiti Kebangsaan Malaysia (UKM)
Astronautic Technology (M) Sdn. Bhd. (ATSB) is a Malaysian-based company who actively involved in research related to space science and technology. The company also has done various collaborations with ANGKASA ever since the early years of its conception. The technical talk were given by Ir. Norhizam Hamzah, the Technology Chief Officer of ATSB aiming to give information on the core business being done by the company and sharing the beneficial technology to researchers in ANGKASA.

ANGKASA Students’ Association (ASA) was first established on 2013 aiming to improve accessibility to most recent information of relevant Space-age technology to the members and non-members with high quality technical information like Astronomy, astrophysics, astrobiology, space chemistry, planetary geology and meteorology, etc. The 2nd Annual Grand Meeting of ASA was organized to form a new committee for Semester I and II of 2014/2015. Almost all students from ANGKASA and students who engaged in research related to ANGKASA has joined the meeting and listened to the annual report presented by the former president. Voting results has confirmed that Siti Katrina Zulkeple was selected to lead the new ASA Committee. Since then, ASA has organized many programs such as Academic Visit to the National Planetarium and ANGKASA Seminar Series 1/2015.
2014 ANGKASA POSTGRADUATES RESEARCH SEMINAR (SPSA2014)
Date: 2nd December 2014
Venue: Puri Pujangga, UKM
Organiser: Space Science Centre (ANGKASA) & ANGKASA Student Association (ASA)

The SPSA 2014 was held with its aim to gather postgraduate students from Space Science Centre (ANGKASA) and other institutes/faculties to present and discuss current research results related to space science and technology, as well as climate change. 16 students have presented their research progress in three different sessions and experienced researchers evaluated the presentations. Siti Katrina Zulkeple and Ashiqur Rahman, both are students from ANGKASA were selected as Best Presenter respectively for Masters and PhD category. Both students received their awards from the honorable guest, YBhg. Prof. Madya Dr. Mohd. Nizam Mohd. Said, Deputy Director of Institute of Climate Change (IPI) in a BBQ Dinner hosted by the Organizing Committee of SPSA 2014.

2014 JOURNAL PUBLICATION WORKSHOP
Date: 9th December 2014
Venue: Meeting Room, Dewan Anwar Mahmud, Faculty of Science & Technology, UKM
Organiser: Space Science Centre (ANGKASA)

The 2015 Journal Publication Workshop was attended by 40 participants mostly postgraduate students from Space Science Centre (ANGKASA), Faculty of Engineering and Built Environment (FKAB) and Faculty of Science and Technology (FST). The workshop was started by welcoming remarks from the Head of ANGKASA, Prof. Ir. Dr. Mardina Abdullah followed by the talks from the invited speakers; Prof. Dr. Nowshad Amin, UKM (Title: Motivation on High Impact Journal Publication), Prof. Dr. T. Prakash G. Thamburaja, UKM (Title: Writing Research Articles for Publication in Q1 Journals) and Dr. Huang Nay Ming, University of Malaya (Title: How to Write and Publish a Review Article). All participants were delighted with the talks given and hope that ANGKASA will provide more beneficial program as such in the future.
PUBLIC LECTURE: “THE INTERNATIONAL POLITICS OF CLIMATE CHANGE”
Date: 20th March 2014
Venue: Billik Majlis, Bangunan Canselori, UKM
Organizer: UKM-YSD Chair in Climate Change, Institute of Climate Change
Speaker: Dr. Gary William Theseira

Dr. Gary William Theseira is presently the Deputy Undersecretary at the Environmental Management and Climate Change Division, Ministry of Natural Resources and Environment Malaysia. In his current position, his main duties revolve around policy analysis, development and support for environmental management and climate change and suitable development. The public lecture entitled “The International Politics of Climate Change” was attended more than 100 participants, mostly from UKM including researchers and students. The objective of the talk is to provide an opportunity for researchers and students to increase their knowledge about climate change, and Dr. Gary William Theseira is indeed very relevant and the right person to enlighten on matters pertaining to climate change.

PUBLIC LECTURE: “LONG TERM IMPACTS OF COMMERCIAL LOGGING ON MALAYSIAN FOREST ECOSYSTEM”
Date: 7th March 2014
Venue: Meeting Room, Faculty of Science & Technology, UKM
Organizer: UKM-YSD Chair in Climate Change, Institute of Climate Change & Faculty of Science and Technology
Speaker: Assoc. Prof. Dr. Yamada Toshihiro

Assoc. Prof. Dr. Yamada Toshihiro with lecturers from Faculty of Science & Technology, UKM
The participants of the public lecture by Assoc. Prof. Dr. Yamada Toshihiro
PUBLIC LECTURE: “THE EFFECTS OF OCEAN ACIDIFICATION AND WARMING ON COASTAL MARINE ANIMALS”
Date: 23rd December 2014
Venue: Conference Hall, Faculty of Science & Technology, UKM
Organizer: UKM-YSD Chair in Climate Change, Institute of Climate Change
Speaker: Prof. Dr. Atsushi Ishimatsu

1st ACADEMIC RESEARCH ON PALM OIL SUSTAINABILITY (ARPOS) NETWORK SYMPOSIUM
Date: 10th-11th June 2014
Venue: Puri Pujangga Hotel, UKM
Organiser: UKM-YSD Chair in Climate Change, UKM-YSD Sustainable Development: Zero Waste Management, MPOB-UKM Endowed Chair & Universiti Teknologi Malaysia (Kuala Lumpur Campus)

The Symposium was attended by 110 participants with representatives from 12 Malaysian universities including Universiti Teknologi Malaysia, Universiti Malaysia Sabah, Universiti Malaysia Sarawak, Universiti Putra Malaysia, Universiti Malaya, Universiti Sains Malaysia, Universiti Teknologi MARA and others. Two keynote addresses were delivered during the ARPOS Network Symposium, first day by Dato’ Seri Ir. Dr. Zaini Ujang, Secretary General II at Ministry of Education while on the second day the keynote address was delivered by Tan Sri Dato’ Dr. Wan Mohd Zahid Mohd. Noordin, Governing Council Member of Yayasan Sime Darby.
The opening ceremony of the Open Roof Ventilation Green House, Free Air Carbon Dioxide Enrichment (FACE) and soft launch modules was officiated by YBhg. Tan Sri Dato’ Dr. Wan Mohd Zahid Mohd Noordin, the Governing Council Member of Yayasan Sime Darby. The Open Roof Ventilation Green House was established to provide facilities for experiments on response of vegetation species on elevated concentration of carbon dioxide. Meanwhile, the FACE station is the latest project conducted by researchers of the Climate Change Niche, and this project is the first being established in the country and in the tropical South East Asia region. There are three modules was also launched during that day which is “Kepelbagaian Biologi Ekosistem Sawit”: Buku Asas & Buku Aktiviti, and “Mathematical Science in Nature”. Almost 100 guests mainly from UKM, YBhg. Prof. Datuk Dr. Noor Azlan Ghazali, the UKM Vice Chancellor, the Deputy Dean of Faculty of Science & Technology, Forest Research Institute Malaysia (FRIM) and Malaysian Institute of Microelectronic System (MIMOS) attended the launching.
The course was held on 24-26 March 2015 at Bilik Majlis Canselori. This course is organized by UKM-YSD Chair in Climate Change, Institute of Climate Change in collaboration with Institut Alam Sekitar (EIEMAS), Jabatan Alam Sekitar Malaysia. Puan Hjh. Yatela Zainal Abidin, Chief Executive Officer of Yayasan Sime Darby officiated the short course while YBhg. Datuk Dr. Abdul Rahim Hj. Nik (Timbalan Ketua Setiausaha II, Kementerian Sumber Asli dan Alam Sekitar) delivered keynote address. The rest of the speakers are Prof. Dr. Mastura Mahmud, Prof. Dato’ Dr. Sharifah Mastura Syed Abdullah, Prof. Madya Dr. Mohd. Nizam Mohd. Said, Prof. Madya Dr. Rawshan Ara Begum, Dr. Liew Ju Neng from UKM and two speakers from Kementerian Sumber Asli dan Alam Sekitar, Dr. Lian Kok Fei and Dato’ Dr. Yap Kok Seng. The course was attended by 34 participants from different government agencies in Malaysia, aimed to enhance their understanding on the basis and scientific related to climate change in the implementation of their duties. Participants also get exposure about policies related to climate change in Malaysia as well as the negotiation and establishment of Malaysia at the global level on the issue pertaining to climate change.
UKM-YSY CHAIR IN CLIMATE CHANGE
GRANT APPLICATION BRIEFING AND
PUBLIC LECTURE ENTITLED “CLIMATE
CHANGE AND ITS IMPACT ON THE OCEAN
AROUND MALAYSIA” AT UNIVERSITY
MALAYSIA TERENGGANU (UMT)
Date: 16th November 2014
Venue: Auditorium Mahyuddin, Pusat Pengajian
Perniagaan dan Pengurusan Maritim,
Universiti Malaysia Terengganu
Organiser: UKM-YSY Chair in Climate Change,
Institute of Climate Change

A roadshow and public lecture by Prof. Dato’ Dr.
Sharifah Mastura as the second chair holder of the
UKM-YSY Chair in Climate Change was held on 16
November 2014 at Auditorium Mahyuddin, Universiti
Malaysia Terengganu. The talk was attended by 25
participants from Pusat Pengajian Sains Perikanan
dan Akuakultur and also representatives from
Universiti Sultan Zainal Abidin (UniSZA), Prof. Dr.
Ekhwan Toriman (Deputy Vice Chancellor Research
and Innovation) and Assoc. Prof. Dr. Hafizan Juahir
(Director, East Coast Environmental Research
Institute). The purpose of the roadshow is to brief
potential researchers on the UKM-YSY Chair in
Climate Change grant application procedure with a
presentation entitled “Taklimat Permohonan Geran
Penyelidikan Kursi Perubahan Iklim UKM-YSY”. After
the briefing, Prof. Dato’ Dr. Sharifah Mastura delivered
her public lecture entitled “Climate Change and its
Impact on the Oceans around Malaysia”.

A visit to Universiti Malaysia Sabah was part of a series of a road show of the UKM-YSY Chair in Climate
Change to promote young researchers to apply for grants under this Chair. Earlier, this Chair has visited
Universiti Malaysia Terengganu and Universiti Sultan Zainal Abidin Terengganu on November 2014 and
received 5 new proposals from interested researchers. The visit to Universiti Malaysia Sabah was held on
13 April 2015. About 20 researchers from various research backgrounds attended the talk.
GEOGRAPHICAL INFORMATION SYSTEM WORKSHOP
Date: 5th-6th February 2014
Venue: Earth Observation Centre, Institute of Climate Change

The two day’s workshop covers the entire basic theory and practical application of ArcGIS software. Topics include all teaching workshop ArcGIS software functions that need to be known by the user in the use of software ArcGIS more effectively. This workshop is suitable for new users either in GIS field or the use of ArcGIS software.

STRATEGIC NEGOTIATIONS WORKSHOP
Date: 24th – 25th February 2015
Venue: Danau Golf Club, UKM

Earth Observation Centre (EOC) held a workshop entitled Strategic Negotiations (Negotiate Effectively). This 2days workshop aims to provide knowledge on strategic consulting to assist the Malaysian delegation in bilateral negotiations with Singapore, either through bilateral meetings or through correspondence. In addition, the workshop participants will be exposed to the chronology that led to the Settlement Agreement between the Malaysia- Singapore.

A total of 35 participants from various government agencies including the Department of Environment, National Security Council, The Ministry of Foreign Affairs, Attorney General, The Ministry of Transport Malaysia, The Department of Irrigation and Drainage and more. This workshop involves the theoretical part on Negotiation and experience sharing session by Dato’ Halimah Hassan, Director General of the Environment, Department of Environment, Ministry of Natural Resources and Environment and Prof. Dato’ Dr. Sharifah Mastura Syed Abdullah, Director, Institute of Climate Change
Prof Dato’ Dr Sharifah Mastura Syed Abdullah diumumkan sebagai penerima Anugerah Langkawi 2013/2014 bagi kategori individu dan menerima sijil, plak perhargaan dan wang tunai RM10,000. Anugerah Langkawi merupakan salah satu penghargaan dan penghormatan tertinggi Negara kepada orang perseorangan rakyat Malaysia dan organisasi berdaftar di Malaysia yang memberikan sumbangan yang signifikan di dalam bidang alam sekitar.

Anugerah itu disampaikan oleh Menteri Besar Kedah, Datuk Seri Mukhriz Tun Dr Mahathir pada majlis perasmian Minggu Alam Sekitar Malaysia (MASM) peringkat kebangsaan 2014 di Taman Tasik Darulaman, Jitra Kedah pada 1 November 2014.

Sime Darby Melawati Development Sdn. Bhd
ASSESSMENT OF THE FLORA AND FAUNA BIODIVERSITY AND INVENTORY AT DESA MELAWATI ECOPARK AND ITS POTENTIAL FOR INVALUABLE ECOSYSTEM SERVICES
Costs: RM 189,000.00
Date: 01/05/2014 - 31/12/2015

Sime Darby Melawati Development Sdn. Bhd
ASSESSMENT AND INVENTORY OF THE PHYSICAL AND CULTURAL HERITAGE AT DESA MELAWATI ECOPARK AND ITS POTENTIAL FOR INVALUABLE ECOSYSTEM SERVICES
Costs: RM 180,000.00
Date: 22/09/2014 - 31/12/2015

ANALISIS SPATIAL PERUBAHAN GARIS PANTAI MENGGUNAKAN IMEJ SATELIT DI SELURUH MALAYSIA
Costs: RM 300,000.00
Date: 01/01/2015 - 31/12/2015

GEOSPATIAL ANALYSIS FOR MONITORING THE DEVELOPMENT ALONG THE COAST OF SOUTH JOHOR
Costs: RM 45,000.00
Date: 03/11/2014 - 30/06/2015

SHARP ELECTRONICS (M) SDN BHD
THE COMPARISON OF INDOOR AIR QUALITY DURING NORMAL AND HAZE CONDITION AND ITS HEALTH ASSESSMENT
Costs: RM 37,500.00
Date: 01/03/2015 - 31/12/2015