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A Decade of Excellence: Alumni Insights from 2012 to 2023

Dr. Siti Norliyana Harun
Institute of Climate Change, UKM

The Institute of Climate Change (IPI) just hit double digits – we are ten years old! As IPI marks a decade since its establishment on December 2, 2013, IPI has produced a total of 49 alumni, consisting of 18 PhD and 31 Master’s degree graduates. Our esteemed alumni have graduated with expertise in diverse fields of climate change studies, ranging from space science and climate modelling to environmental monitoring, climate change impacts, sustainability, and beyond. Their diverse specializations highlight the comprehensive and interdisciplinary education they acquired at our institute.



Figure 1: Numbers of alumni from 2012 to 2023

To date, our alumni represent a rich variety of backgrounds, joining our institute from diverse parts of the world. With roots in countries like Malaysia, Bangladesh, Indonesia, Iran, India, Nigeria, Syria and India, our graduates bring diverse perspectives and unique experiences to our institute's history. This rich diversity not only strengthens the global perspective within our institute but also promotes collaborative efforts to tackle climate challenges on a global scale.

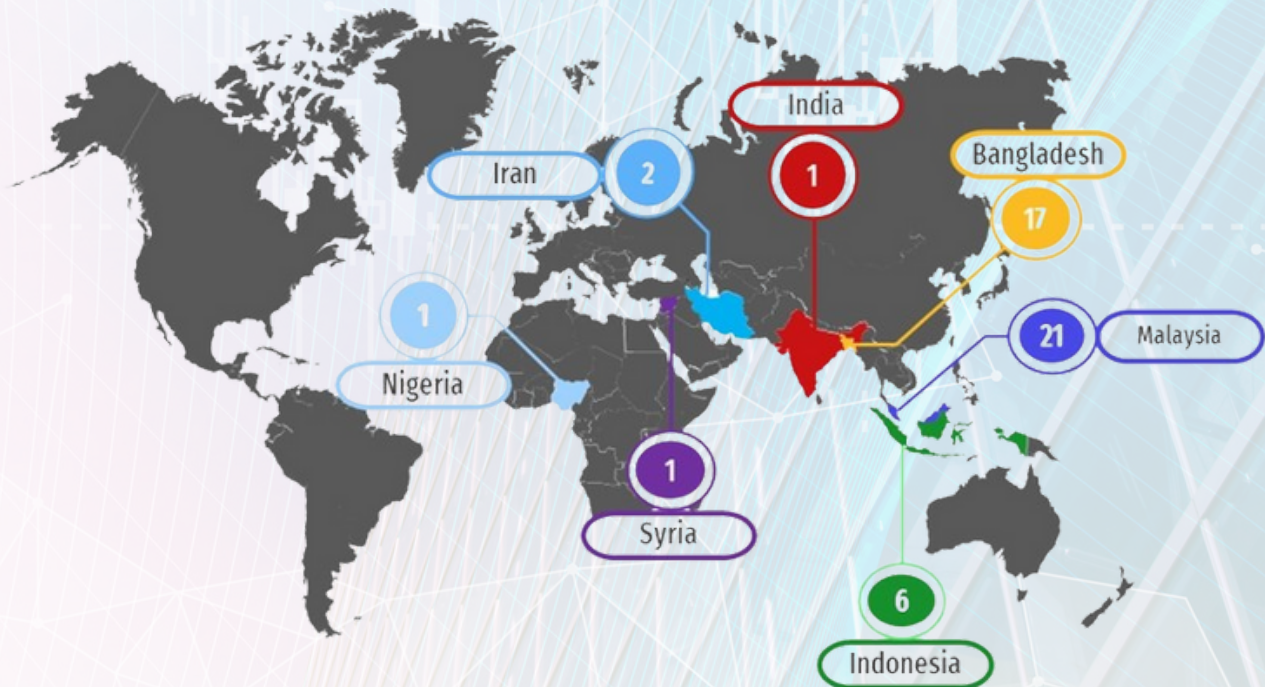


Figure 2: Numbers of alumni broken down according to their countries of origin

IPI alumni work in various professional disciplines. Notably, 65.3% of graduates work as academics, contributing to research and education at academic and research institutions around the world. The remaining alumni have diversified into various professions, including government service, business, and the industrial sector.



Figure 3: The distribution of IPI’s alumni professions

IPI's commitment to nurturing leaders goes beyond academic pursuits. Events such as alumni sharing sessions and tree planting initiatives have been pivotal in maintaining a strong connection with our graduates. Alumni sharing sessions provide a platform for knowledge exchange, allowing current students to benefit from the experiences and insights of those who have successfully navigated the challenges of their academic and professional journeys.

ALUMNI SHARING SESSION

Organized by:
Centre for Tropical Climate Change System (IKLIM)

Moderator

Panelist

Panelist

3rd August 2023 (Thursday)
9.00 a.m - 12.00 a.m
Cisco Webex <https://qrs.ly/z1f0zje>

Scan to join

QR code for registration

Open to Public

www.ukm.my/ipi | ipiukm

Figure 4: Alumni sharing session which was held on 3rd August 2023.

Two of our alumni, Wan Nur Arina Wan Mohd Nor (Master, 2020) and Tayaallen A/L Ramachandran (PhD, 2022) have shared their experiences throughout their study journey and current careers. This engaging session has been moderated by our current Master student, Yu Hai Ping.

As we celebrate the accomplishments of the past, we eagerly anticipate the future contributions of our growing network of climate leaders. IPI remains dedicated to fostering a community that not only excels in academic pursuits but actively engages with the world, driving positive change in the face of climate change challenges. The success of the IPI's alumni is a testament to the transformative power of education and the collective effort to address climate change. We take pride in the accomplishments of our graduates and look forward to witnessing their continued impact on a global scale.

For more information about IPI's alumni, please visit our website <https://www.ukm.my/ipi/alumni-2/>.

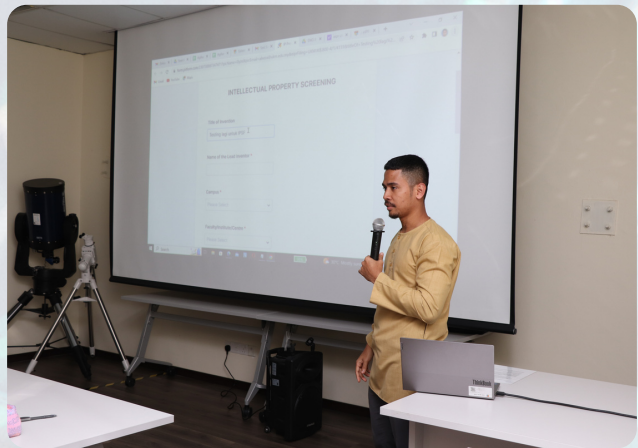
PROGRAMS AND ACTIVITIES

Pitching Session with Centre for Innovation & Technology Transfer (INOVASI@UKM)

Date: 7th July 2023

Venue: IPI Seminar Room, Level 7, Research Complex

In collaboration with the representatives from INOVASI@UKM, IPI organized a pitching session for academics to present research findings with the potential for IP protection. A total of 5 presentations were conducted, and INOVASI@UKM provided insights and advice on how the research output at IPI could be protected.



Jejak Karbon One-day Program

Date: 8th July 2023

Venue: Sekolah Berasrama Penuh Integrasi Gombak, Selangor

The efforts of Environmental Management Center (EMC) for research implementation is the provision of research grants known as Geran Penyelidikan Alam dan Perubahan Iklim (PAPI) to dedicated researchers at UKM. The "Program Jejak Karbon" is to instill the climate change awareness into the participants and strengthen their concept of reducing carbon footprint. The program includes many interesting and exciting activities, involving UKM students as facilitators and participants. The students' activities are periodically evaluated, and the results will be presented by the students upon the completion of the program.





Visit from Deputy Vice Chancellor (Research & Innovation) of UKM

Date: 21st July 2023

Venue: Earth Observation Centre Building

IPI had the honor of hosting a visit from YBhg. Prof. Dato' Dr. Wan Kamal Mujani, the Deputy Vice-Chancellor (Research & Innovation) of Universiti Kebangsaan Malaysia (UKM). The visit, focused on Research & Innovation Affairs, provided a valuable opportunity for in-depth discussions and exchanges of ideas between YBhg. Prof. Dato' Dr. Wan Kamal Mujani and the team at IPI. The visit underscored the importance of collaboration and the advancement of research initiatives, fostering a stronger partnership between UKM and IPI in the pursuit of academic and innovative excellence.



Institute of Climate Change (IPI) Seminar Series 5/2023

Date: 7th August 2023

Venue: IPI Seminar Room, Level 7, Research Complex

On August 7, 2023, IPI hosted an enlightening seminar entitled "Geophysical Investigations of Habitability in Ocean Worlds: Focus on Electrical Conductivity and Magnetic Induction". The distinguished speaker for this event was Dr. Steven D. Vance, an esteemed researcher from NASA's Jet Propulsion Laboratory. This seminar gave a comprehensive explanation of the geophysical factors influencing habitability in ocean worlds, with a specific emphasis on the roles of electrical conductivity and magnetic induction.



Courtesy Visits from Pusat Geospasial Negara, Kementerian Sumber Asli, Alam Sekitar dan Perubahan Iklim to Earth Observation Centre (EOC)

Date: 16th August 2023

Venue: Meeting Room, Earth Observation Centre, Universiti Kebangsaan Malaysia

EOC, IPI welcomes the presence of delegates from the National Geospatial Centre (PGN) led by Puan Suzaini binti Jabar, Deputy Director, *Cawangan Perkhidmatan Geospasial*. One of the purposes of the visit is to share information and knowledge related to the implementation of GeoNode open-source software and other geospatial applications such as WebGIS.



Workshop on Enhancing Lecturers' Skills for the IPI Graduate Program 3/2023

Date: 12th September 2023

Venue: IPI Seminar Room, Level 7, Research Complex

IPI hosted a workshop to enhance the skills of lecturers for the IPI Graduate Program 3/2023 on 12 September 2023. This workshop aimed to provide a platform for academics to engage in collaborative discussions, share best practices, and explore innovative teaching methodologies. With a focus on enhancing the skills and capabilities of lecturers, the workshop aims to contribute to the continuous improvement of the graduate program, ensuring a high standard of education and a rewarding learning experience for the students.



Visit from UK Centre for Ecology & Hydrology (UKCEH)

Date: 20th September 2023

Venue: Institute of Climate Change (IPI)

UK Centre for Ecology & Hydrology (UKCEH) visited the Institute of Climate Change (IPI) at Universiti Kebangsaan Malaysia (UKM) for collaborative research. The aim was to enhance cooperation and share expertise in the areas of ecology and hydrology that can be related with IPI. This collaboration underscores the importance of international partnerships in addressing environmental challenges and advancing scientific understanding.



9th National Geospatial Information Symposium (NGIS)

Date: 17th & 18th October 2023

Venue: Putrajaya International Convention Centre (PICC), Putrajaya

This symposium serves as a collaborative platform for the nationwide Geospatial community, encompassing government, private, and academic institutions. The 9th NGIS was designed to facilitate the exchange of experiences and information among Geospatial practitioners, addressing current challenges both domestically and internationally. During this symposium, Assoc. Prof. Sr. Ts. Gs. Dr. Khairul Nizam Abdul Maulud, Head of the Earth Observation Centre, represented UKM as a supporting agency, delivering a presentation titled "Strategi Adaptasi Dan Mitigasi Perubahan Iklim Di Kawasan Pesisir Pantai Menggunakan Pendekatan Teknologi Geospasial." Additionally, the poster presentation at UKM featured experts from various departments, including Gs. Dr. Ricky Anak Kemarau (IPI), Ts. Gs. Dr. Wan Shafrina Wan Mohd Jaafar (IPI), Sr. Muhammad Amartur Rahman Zainal Abidin (Prasarana UKM), Sr. Mohd Aizat Saiful Bahri (Prasarana UKM), and Gs. Aslinda Oon Ridzuan Oon (PTM).



IPI Students' Orientation

Date: 20th October 2023

Venue: Meeting Room, Research Complex

IPI has welcomed and organized a comprehensive orientation event for the new postgraduate students. The event served as an introduction to the academic journey ahead, providing students with essential information about the institute's resources, facilities, and the structure of their respective programs. This orientation marks the beginning of a fulfilling educational adventure for the new students, setting the stage for a successful and enriching postgraduate experience at IPI.



Environmental Data Programme Workshop

Date: 23rd October 2023

Venue: Bangi Resort Hotel, Selangor

The Earth Observation Centre has orchestrated a workshop on the Environmental Data Program, engaging multiple agencies such as Jabatan Alam Sekitar, Kementerian Sumber Asli, Alam Sekitar dan Perubahan Iklim (NRECC), Jabatan Pengairan dan Saliran (JPS) and Pusat Hidrografi Nasional (PHN). This workshop is designed to deliberate on the Environmental Data program's implementation and gather insights from participants regarding cross-boundary environmental pollution studies.



Briefing Session: Program Laman Cakna Alam

Date: 26th October 2023

Venue: Sekolah Kebangsaan Kuala Pomson, Hulu Langat, Selangor

The Environmental Management Center (EMC), in collaboration with Khadijah International Waqf Foundation (KIWF), has organized the second Program Komuniti Alam dan Perubahan Iklim (KAPI), involving five primary schools in Hulu Langat. The initial phase of the program commenced with a briefing session conducted by UKM's experts for the school's teachers. The program's objective is to familiarize teachers with the knowledge and flows of the program, which will later be conveyed to the students in their respective schools.



Visit from the National Hydrographic Centre

Date: 26th October 2023

Venue: Institute of Climate Change (IPI)

IPI through the Earth Observation Center (EOC) led by Associate Prof. Sr. Ts. Gs. Dr. Khairul Nizam Abdul Maulud and Associate Professor Dr. Muzneena Ahmad Mustapha, warmly welcomed the delegation from National Hydrographic Centre (PHN), headed by Lieutenant Commander Ramli Mohd. The discussion focused on the analysis of satellite imagery using Synthetic Aperture Radar (SAR), providing indicators of the existence of internal waves on the sea surface.



Courtesy Visit by Institut Kajian Pembangunan Sabah (IDS)

Date: 27th October 2023

Venue: Institute of Climate Change (IPI)

A courtesy visit from Institut Kajian Pembangunan Sabah (IDS) to IPI was conducted on October 27, 2023. This visit provided an opportunity for both institutions to engage in fruitful discussions and collaborative initiatives. The exchange aimed to foster a stronger partnership, promoting the sharing of ideas and expertise between IDS and IPI.



**Benchmark Visit by Climate Change Law Research Unit (CLIMATE),
Universiti Utara Malaysia (UUM)**

Date: 27th October 2023

Venue: Institute of Climate Change (IPI)

Climate Change Law Research Unit (CLIMATE), Universiti Utara Malaysia (UUM) recently visited IPI UKM for a benchmarking session, focusing on sharing ideas about management and research practices, particularly in climate change. The aim was to enhance both institutions by exchanging successful strategies in higher education.



Presentation of Collaboration at Yayasan PETRONAS

Date: 31st October 2023

Venue: Office of Yayasan PETRONAS, Kuala Lumpur

A proactive step taken by EMC for networking purposes involves a presentation showcasing collaboration with Yayasan PETRONAS. The presentation outlines what EMC can offer in terms of environmental sustainability. This potential collaboration is a significant move for a relatively young center like EMC. If successfully established, it will not only benefit EMC but also IPI and UKM.



Institute of Climate Change (IPI) Research Seminar

Date: 1st November 2023

Venue: Meeting Room, Level 5, Research Complex, UKM Bangi

On November 1, 2023, IPI hosted a seminar entitled "Using Machine Learning Methods to Forecast Air Quality: A Case Study in Macao". The distinguished speaker for this event was Prof. Thomas Lei from the Institute of Science and Environment at the University of Saint Joseph in Macao. The seminar provided a platform for an in-depth exploration of the application of machine learning methods in forecasting air quality, with a specific focus on a case study in Macao. Attendees had the opportunity to gain valuable insights into cutting-edge research and advancements in the field, as well as to engage with Prof. Thomas Lei on this topic.



Evaluation Session: Program Laman Cakna Alam

Date: 8th November 2023

Venue: Schools of Hulu Langat, Selangor

At the onset of the program, the five participating schools prepared their own 'Laman Cakna Alam'. The program's rules and regulations outline that the space should consist solely of recyclable materials. The composition of recyclable materials in developing the space contributes to the points in the evaluation session by UKM's experts. Surprisingly, within the limited time given, each school demonstrated outstanding results, with almost all features of the space made up of recyclable materials. Some products even show great potential for commercialization if the correct platform is provided. The children and their minds are indeed like white canvases, ready to spill their unimaginable ideas and views.





Launching of Sahabat Sungai Hulu Langat

Date: 11th November 2023

Venue: Institut Kemahiran Tinggi Belia Negara Dusun Tua, Hulu Langat

The completion of the Laman Cakna Alam's evaluation marks the conclusion of the program. Each school is awarded a prize sponsored by the Perbadanan Tabung Pendidikan Nasional, with titles ranging from Sekolah Cakna Alam Platinum (for the champion) to Sekolah Cakna Alam Bronze (for the fifth place). Additionally, four students from each participating school receive the title of Jaguh Cakna Alam along with a monetary reward credited directly into their Skim Simpanan Pendidikan Nasional (SSPN) accounts. The results were announced concurrently with the launch of the Sahabat Sungai Hulu Langat ceremony, an initiative by the Parliament and ADUN of Hulu Langat office, in collaboration with the Khadijah International Waqf Foundation (KIWF) and the District Education Office of Hulu Langat.





Final Presentation of Program Jejak Karbon di Sekolah

Date: 14th November 2023

Venue: Akademia Siber Teknopolis, Universiti Kebangsaan Malaysia

After the dissemination of knowledge to the students in July 2023, they were given the opportunity to independently conduct activities, with minimal supervision from their respective teachers. The students were divided into several groups, and intense competition among them was evident during the presentation session held at Akademia Siber Teknopolis, Universiti Kebangsaan Malaysia. Various presentation styles and approaches were showcased to capture the attention of the judges evaluating the presentations. The opening ceremony of the presentation was officiated by the director of IPI, Associate Professor Dr. Zaini Sakawi.



3rd International Conference on Unmanned Aerial Systems in Geomatics – 2023 (UASG 2023)

Date: 20th– 21st November 2023

Venue: Bangi Resort Hotel, Selangor

UASG 2023 focuses on advancing Unmanned Aerial Vehicle (UAV) technology and addressing current issues under the theme "UAV: A Game Changer for Geomatics." Through UASG 2023, IPI has successfully attracted more researchers to explore UAVs and Drones at an advanced level, elevating UKM's international reputation in this field. The collaboration with IIT Roorkee, India has expanded our international network and cooperation significantly.



Memorandum of Understanding Preparation Meeting (MoU) Geospatial Services between Universiti Kebangsaan Malaysia (UKM) and Pusat Geospasial Negara (PGN)

Date: 14th December 2023

Venue: Wisma Sumber Asli, Presint 4, Kementerian Sumber Asli, Alam Sekitar dan Perubahan Iklim (NRECC), Putrajaya.

The meeting aimed to deliberate on enhancing collaboration between PGN and academia, focusing on expertise development and Geospatial services. During the session, both parties presented and finalized aspects of their cooperation to be formalized.



Visit from Academy of Islamic Studies (APIUM), Universiti Malaya

Date: 20th December 2023

Venue: Institute of Climate Change (IPI)

UASG 2023 focuses on advancing Unmanned Aerial Vehicle (UAV) technology and addressing current issues under the theme "UAV: A Game Changer for Geomatics." Through UASG 2023, IPI has successfully attracted more researchers to explore UAVs and Drones at an advanced level, elevating UKM's international reputation in this field. The collaboration with IIT Roorkee, India has expanded our international network and cooperation significantly.



2023 8th International Conference on Space Science and Communication (IconSpace 2023)

Nurul Hajjah Hair
Institute of Climate Change, UKM

The Institute of Climate Change (IPI) of Universiti Kebangsaan Malaysia through Space Science Centre (ANGKASA), has organized the 2023 8th International Conference on Space Science and Communication (IconSpace 2023) on 3rd – 4th October 2023 at DoubleTree Resort by Hilton Penang.

The conference aimed to provide a platform for researchers, scientists, and industry people to communicate and disseminate information on the latest developments in space science, space communication and related fields. With the theme “Advanced Space Technology: Accelerating Global Agenda”, IconSpace 2023 has gathered many local and foreign researchers including Malaysia, Japan, Philippines, Thailand, Bangladesh, United States of America, Nigeria, and Pakistan.



IconSpace 2023 participants and Committee

The conference commenced with a formal officiating ceremony led by YBhg. Prof. Dato’ Dr. Wan Kamal Mujani, the Deputy Vice-Chancellor (Research and Innovation) of Universiti Kebangsaan Malaysia. Setting the tone for the event, the opening ceremony was followed by an insightful keynote session featuring Prof. Ts. Dr. Kasturi Devi Kanniah from Universiti Teknologi Malaysia. She delivered a keynote speech titled "Mapping Fine Particulate Matters in the Maritime Region of Malaysia Using Multisource Remote Sensing Data". The session continued to captivate the audience with another keynote address titled "Equatorial Plasma Bubble (EPB) Observation and Effects on Modern Technology" by Prof. Dr. Pornchai Supnithi from Thailand.



Prof. Ts. Dr. Kasturi Devi Kanniah (UTM) and Prof. Dr. Pornchai Supnithi (Thailand) delivering their keynote speeches.

After two keynote speeches, participants presented their research findings in three parallel sessions. These sessions covered four tracks: Astronomy, Atmospheric and Magnetospheric Sciences, Remote Sensing and Applications, Satellite and Communication Technology. The setup allowed for a diverse range of topics and encouraged active discussions, creating a collaborative environment for sharing insights and advancements in space science and communication.

A total of 50 research papers were presented, where most of the papers were submitted to the track of Satellite and Communication Technology. All eligible articles that meet the publication requirements will be published in Springer or Jurnal Kejuruteraan.



Some of the participants during the parallel presentation session

On the conference's second day, two keynote speakers from Japan, Professor Dr. Kensei Kobayashi and Professor Dr. Kunio Sakakibara, shared their expertise. Professor Dr. Kensei Kobayashi discussed the "Origins of Terrestrial Bioorganic Compounds," examining how these compounds are formed on Earth. Meanwhile, Professor Dr. Kunio Sakakibara presented on the "Development of High-Gain and Beam-Scanning Antennas in Sub-THz Wave Band," discussing advancements in antenna technology. These insightful talks added valuable perspectives to the conference, enriching discussions on space science and communication.

After all the sessions ended, two tutorial sessions were hosted in conjunction with IconSpace 2023. Dr. Ng Kok Jiunn from TE Connectivity led the tutorial on "Industrial Antenna Perspective" shedding light on the latest in antenna technology and its industrial applications. Simultaneously, Associate Prof. Dr. Gan Kok Beng from UKM led the tutorial on "Machine Learning for Space Technology Application". These sessions aim to provide participants with valuable insights and foster a learning environment at the forefront of technology.



Tutorial sessions by Dr. Ng Kok Jiunn and Associate Prof. Dr. Gan Kok Beng

IconSpace 2023 supported by World Space Week and received a sponsorship from Malaysia Digital Economy Corporation (MDEC). The 8th IconSpace conference had successfully achieved its targets as one of the initiatives to advance the developments of space science research in Malaysia. The next IconSpace conference will be held in the year 2025 and further information is available at the website <http://www.ukm.my/iconspace/>.

6th Asia-Oceania Space Weather Alliance Workshop (AOSWA 2023)

Ts. Dr. Norsuzlin Mohd Sahar
Space Science Centre,
Institute of Climate Change, UKM

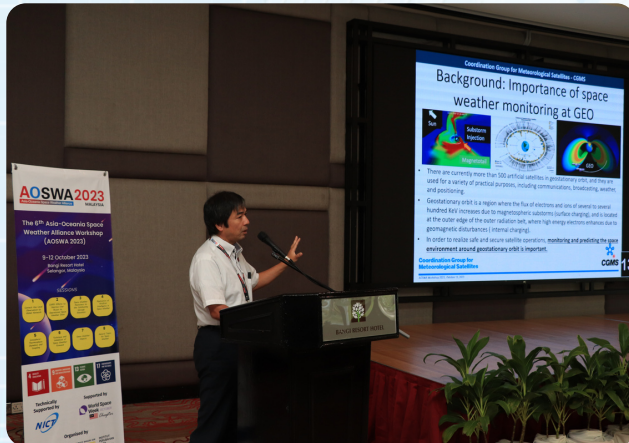
The 6th Asia-Oceania Space Weather Alliance Workshop (AOSWA 2023) was co-organized by the Space Science Centre (ANGKASA), Institute of Climate Change (IPI), Universiti Kebangsaan Malaysia (UKM), and the National Institute of Information and Communications Technology (NICT). The event gathered 70 presenters from 16 countries, representing diverse local and international research institutions and higher education entities across the Asia-Oceania region. This inclusive assembly served as a platform for discussions on recent advancements in observational, theoretical, modeling, forecasting, and practical applications within the field. The primary objective of the workshop was to foster research collaborations and networking opportunities, capitalizing on the distinctive characteristics of the Asia-Oceania upper atmosphere region.



The workshop unfolded across three days. The opening ceremony on the first day was honored by the presence of Deputy Vice-Chancellor of Research and Innovation, Prof. Dato' Dr. Wan Kamal Mujani. Mr. Tuan Haji Azlikamil bin Napiah, Director General of the Malaysian Space Agency (MYSA), commenced the event with Keynote Speech 1, 'Space Weather Forecast: Malaysia's Distinctive Insight.' Subsequently, Prof. Erna Sri Adiningsih from the Indonesian Space Agency Secretariat, National Research and Innovation Agency (BRIN), Indonesia, presented Keynote Speech 2, 'Space Weather Monitoring: From Comprehensive Research to Regional Services'.



The second day's highlight was Keynote Speech 3, 'Space Weather in a New Space Age: LEO Satellite Environment,' delivered by Dr. Donghun Lee from Kyunghee University, Republic of Korea. The concluding day featured Keynote Speech 4, 'Space Weather: A Scientific Phenomenon of Global Concern,' presented by Dr. Nat Gopalswamy from NASA Goddard Space Flight Center, USA.



The oral presentations were conducted in a hybrid format across 8 dedicated sessions. Additionally, on the second day, an afternoon session featured a poster presentation with the participation of 15 presenters.



On the last day, the Steering Organizing Committee (SOC) and several participants explored Kuala Lumpur's city center, visiting landmarks including the National Palace, Planetarium, National Mosque, Dataran Merdeka, Malaysia Tourism Centre (MaTiC), and Petronas Twin Towers (KLCC).

2023 International Conference on CMAS-Asia-Pacific

Nur Nazmi Liyana Binti Mohd Napi and Aulia Nisa'ul Khoir
Centre of Tropical Climate Change System,
Institute of Climate Change, UKM



Coming to attend an international conference in Japan felt like it was surreal. We and our supervisor, Dr. Maggie Chel Gee Ooi, were given the opportunity to attend an international conference in Japan, entitled 2023 International Conference on CMAS-Asia-Pacific. It was held on July 17-21, 2023, in Saitama, Japan. Both of us were fortunate enough to receive the early career researcher financial support for this program after fulfilling several strict requirements. What makes this event interesting is it was involved with a few international institutes that have similar niche and expertise in air quality studies.

The conference was hosted by Nation Institute for Environmental Studies (NIES); and organized jointly by State Environmental Protection Key Laboratory of Sources and Control of Air Pollution Complex in China; Center for Community Modeling and Analyses (CMAS); Northeastern University, and World Meteorological Organization (WMO); Global Atmosphere Watch Programme (GAW); and Global Air Quality Forecasting and Information System (GAFIS) Steering Committee. It was also supported by the Center for Environmental Science in Saitama; Japan Society of Atmospheric Environment (JSAE); Asia Center for Air Pollution Research (ACAP); U.S. Environmental Protection Agency; Korean Society for Atmospheric Environment (KOSAE); Integrated Research on Disaster Risk (IRDR); Monitoring, Analysis and Prediction of Air Quality (MAP-AQ); and EX Research Institute Ltd.

This program is really beneficial for us as it is providing an excellent opportunity for air quality scientists and model developers with similar backgrounds with us who are working hard to improve the air quality in respective countries or regions. This program comes with a three-day conference and two-day training course on the Community Multiscale Air Quality Modeling System (CMAQ). Lastly, the exciting part are each of us were presenting three different work on “Long-term Spatio-Temporal Analysis of MERRA-2 AOD over Maritime Continent” (presented by Aulia Nisa’ul Khoir), “Numerical Prediction using WRF-CMAQ to Predict the Air Quality during 2019 Smoke Event in Peninsular Malaysia”

(presented by Nur Nazmi Liyana Binti Mohd Napi), and “Assessing the Impacts of Climate Variable on Long-term Air Quality Trends in Peninsular Malaysia (presented by Dr. Maggie Chel Gee Ooi). To be highlighted is, the presentation by Nazmi Liyana has received the renowned Best Young Scientist Award!

Apart from gaining new knowledge from the conference, gaining insight of the culture of the countries we visited was another valuable experience. Japan, as one of the developed countries in Asia, is renowned for its capability in conducting air quality observations, modeling, and management. Their work is supported by sufficient tools and resources as well as experts in this field. Learning from Japan is certainly a good way to continue developing our abilities. We believe that by continuously seeking knowledge, even only little by little, we will be enriched and become more advanced, and surely can contribute to our country (Malaysia and Indonesia).



SELECTED PUBLICATION

HIGH IMPACT JOURNALS (Q1)

Notes: Only authors from IPI academicians are shown

NO.	PAPER TITLE & JOURNAL NAME	AUTHORS
1	4X4 MIMO slot antenna spanner shaped low mutual coupling for Wi-Fi 6 and 5G communications <i>Alexandria Engineering Journal</i>	Mandeep Singh A/L Jit Singh
2	A compact complementary split ring resonator (CSRR) based perfect metamaterial absorber for energy harvesting applications <i>Engineering Science and Technology, an International Journal</i>	Ahasanul Hoque
3	A compact-sized four-band metamaterial-based perfect absorber for electromagnetic energy harvesting applications <i>Optics & Laser Technology</i>	Ahasanul Hoque
4	An efficient, compact, wide-angle, wide-band, and polarization-insensitive metamaterial electromagnetic energy harvester <i>Alexandria Engineering Journal</i>	Ahasanul Hoque
5	An innovative polarisation-insensitive perfect metamaterial absorber with an octagonal-shaped resonator for energy harvesting at visible spectra <i>Nanomaterials</i>	Mohammad Rashed Iqbal Faruque
6	Assessing the impacts of climate variables on long-term air quality trends in Peninsular Malaysia <i>Science of the Total Environment</i>	Ooi Chel Gee
7	Chronological evaluation of the synthesis techniques of nanocrystalline Fe _{73.5} Cu ₁ Nb ₃ Si _{13.5} B ₉ soft magnetic alloy <i>Progress In Crystal Growth and Characterization of Materials</i>	Mohammad Rashed Iqbal Faruque
8	Compact Multi-Layered Symmetric Metamaterial Design Structure for Microwave Frequency Applications <i>Materials</i>	Mohammad Rashed Iqbal Faruque
9	Compact and polarization insensitive satellite band perfect metamaterial absorber for effective electromagnetic communication system <i>Materials</i>	Mohammad Rashed Iqbal Faruque
10	Data-driven approaches to sustainable referral system design integrating the offline channel and the online channel <i>Journal of Cleaner Production</i>	Biswajeet Pradhan
11	Environmental performance of a photovoltaic brackish water reverse osmosis for a cleaner desalination process: A case study <i>Science of the Total Environment</i>	Marlia Binti Mohd Hanafiah
12	Gate-to-gate life cycle analysis of a pilot-scale solar driven two-step thermochemical hydrogen sulfide decomposition for hydrogen production <i>Journal of Cleaner Production</i>	Marlia Binti Mohd Hanafiah
13	Interconnected square splits ring resonator based single negative metamaterial for 5G (N258, N257, N260 and N259) band sensor/EMI shielding/and antenna applications <i>Alexandria Engineering Journal</i>	Touhidul Alam

Notes: Only authors from IPI academicians are shown

NO.	PAPER TITLE & JOURNAL NAME	AUTHORS
14	Kinetic and Shear Alfvén Waves in a Large Guide-field Reconnection at Earth's Magnetopause <i>The Astrophysical Journal</i>	Teh Wai Leong
15	Liquid chemical adulteration detection enhancement using a square enclosed Tri-Circle negative index metamaterial sensor <i>Engineering Science and Technology, an International Journal</i>	Ahasanul Hoque
16	Monitoring of three stages of paddy growth using multispectral vegetation index derived from UAV images <i>The Egyptian Journal of Remote Sensing and Space Sciences</i>	Khairul Nizam Abdul Maulud
17	Porous hierarchical Ni/Mg/Al layered double hydroxide for adsorption of methyl orange from aqueous solution <i>Nanomaterials</i>	Mohammad Rashed Iqbal Faruque
18	Quad-band metamaterial perfect absorber with high shielding effectiveness using double x-shaped ring resonator <i>Materials</i>	Mohammad Rashed Iqbal Faruque
19	Quasi-Yagi antenna design for LTE applications and prediction of gain and directivity using machine learning approaches <i>Alexandria Engineering Journal</i>	Samir Salem Omair Al-Bawri
20	Regulatory mechanisms of nutrient metabolism and the impacts of Iron and Zinc nanoparticles on growth and physiology of Rohu, Labeo rohita <i>Animal Feed Science and Technology</i>	Noorashikin Binti Md Noor
21	Remote sensing-based assessment of mangrove ecosystems in the Gulf Cooperation Council countries: a systematic review <i>Frontiers in Marine Science</i>	Wan Shafrina Binti Wan Mohd Jaafar
22	Socio-economic correlation analysis and hybrid artificial neural network model development for provincial waste electrical and electronic equipment generation forecasting in China <i>Journal of Cleaner Production</i>	Marlia Binti Mohd Hanafiah
23	Spatial flood susceptibility mapping using an explainable artificial intelligence (XAI) model <i>Geoscience Frontiers</i>	Biswajeet Pradhan
24	The application of graphene/h-BN metamaterial in medical linear accelerators for reducing neutron leakage in the treatment room <i>Physical and Engineering Sciences in Medicine</i>	Mohammad Rashed Iqbal Faruque
25	Thermoset-polymer matrix composite materials of jute and glass fibre reinforcements: Radiation effects determination <i>Journal of Materials Research and Technology</i>	Mohammad Rashed Iqbal Faruque

SELECTED RESEARCH GRANTS

NATIONAL GRANT

Dr. Touhidul Alam

Research Title: Particulate matter sensing based on surface integrated coupled metamaterial structure using denoised passive differentiation

Granted by: Fundamental Research Grant Scheme (FRGS)

Amount: **RM 212,000.00**

INDUSTRY GRANT

Prof. Dr. Mohd. Nizam Mohd. Said

Research Title: Kajian Kesedaran Anggota Koperasi Sekolah Terhadap Kepentingan Hutan dan Perubahan Iklim

Granted by: Angkatan Koperasi Kebangsaan Malaysia Berhad (ANGKASA)

Amount: **RM 60,500.00**

UNIVERSITY GRANT

Prof. Dr. Marlia Mohd Hanafiah

Research Title: Dynamic Modelling of Water-Energy Nexus of Membrane-based Water Treatment Technologies through Multi Criteria Decision Analysis Model

Granted by: Universiti Kebangsaan Malaysia - Geran Universiti Penyelidikan (GUP)

Amount: **RM 70,000**

Prof. Dr. Mohd. Nizam Mohd. Said

Research Title: Resilience and Empowerment of Vulnerable Communities in Climate Change Affected Areas in Kedah

Granted by: Universiti Kebangsaan Malaysia - Kursi Kelestarian UKM-YSD

Amount: **RM 120,000**

CONGRATULATIONS!



AUSTRALIA AWARD FELLOWSHIP

Congratulations to Associate Prof. Sr. Ts. Gs. Dr. Khairul Nizam Abdul Maulud for getting the Australia Award Fellowship from University Technology Sydney (UTS). The fellowship was from 25th September to 15th October 2023.



WORLD'S TOP 2% SCIENTIST

Congratulations to Prof. Dr. Biswajeet Pradhan, IPI Distinguished Professor for being awarded World's Top 2% Scientists, Globally Ranked No.1 in the field of Geological and Geomatics Engineering.



RESEARCH FELLOWSHIP PROGRAM 2023

Congratulations to Dr. Ooi Chel Gee for being awarded Research Fellowship Program 2023 - Acid Deposition Monitoring Network in East Asia (EANET) by the Asia Center for Air Pollution Research Center (ACAP), Japan.



GOLD MEDAL AWARD

Congratulations Dr. Samir Salem Omair Al-Bawri for winning a gold medal in INVENTX Invention Exhibition 2023 for his research project entitled "High Performance Antenna System Based Machine Technique for Mid Band 5G Applications" held on 12th October 2023.





Sekalung
TAHNIAH

Prof. Ir. Dr. Mardina Abdullah

atas pelantikan semula sebagai
Timbalan Pengarah
Institut Perubahan Iklim (IPI)
Universiti Kebangsaan Malaysia

bermula
1 October 2023 - 30 September 2025
(tempoh 2 tahun)

www.ukm.my/ipi   [ipiukm](https://www.facebook.com/ipiukm)

Ikhlas Daripada Seluruh Warga Institut Perubahan Iklim

RE-APPOINTMENT AS IPI DEPUTY DIRECTOR

Congratulations to Prof. Ir. Dr. Mardina Abdullah on her reappointment as Deputy Director of IPI for another two years, starting from October 1, 2023.





Tahniah

Prof. Dr. Marlia Mohd Hanafiah

atas kenaikan pangkat ke
PROFESOR GRED KHAS C (VK7)
berkuat kuasa pada
8 OGOS 2023

Ikhlas Daripada Seluruh Warga Institut Perubahan Iklim www.ukm.my/ipi   [ipiukm](https://www.facebook.com/ipiukm)

EMPLOYEE PROMOTION

Congratulations to Prof. Dr. Marlia Mohd Hanafiah for being promoted to Professor Special Grade C (VK7) starting from 8 August 2023.





Tahniah

Encik Mohd Sayuti Che Hamid

Institut Perubahan Iklim (IPI)
atas kenaikan pangkat ke
Pembantu Tadbir (P/O) N22 (TBK)
berkuat kuasa pada
22 Jun 2023

Ikhlas Daripada Seluruh Warga Institut Perubahan Iklim www.ukm.my/ipi   [ipiukm](https://www.facebook.com/ipiukm)

EMPLOYEE PROMOTION

Congratulations to Mohd Sayuti Che Hamid for being promoted to Administrative Assistant N22 starting from 22 June 2023.





Tahniah

Mahendran Sithamparam
(Pelajar Kedoktoran Institut Perubahan Iklim)
di atas kemenangan
2nd Prize Winner
dalam pertandingan
Materials Lecture Competition 2023
peringkat
Universiti Kebangsaan Malaysia
pada
18 Julai 2023

*Ikhlas Daripada
Seluruh Warga Institut Perubahan Iklim*

Penyelia Utama: Dr. Kuhan Chandru

2nd PRIZE WINNER IN MATERIALS LECTURE COMPETITION 2023

Congratulations to IPI PhD Student, Mahendran Sithamparam for winning the 2nd Prize in the Materials Lecture Competition 2023 hosted by UKM on 18 July 2023.



Tahniah

Nur Nazmi Liyana binti Mohd Napi
(Pelajar Kedoktoran Institut Perubahan Iklim)
di atas pengiktirafan
Young Scientist Award
dalam persidangan
2023 International Conference on CMAS-Asia-Pasific
oleh
Japan Meteorological Corporation

Penyelia Utama: Dr. Ooi Chel Gee
Penyelia Bersama:
1. Prof. Dr. Mohd Talib Latif
2. PM. Dr. Liew Ju Neng
3. Prof. Andy Chan Tak Yee

JMC
Japan Meteorological Corporation

Ikhlas Daripada
Seluruh Warga Institut Perubahan Iklim

YOUNG SCIENTIST AWARD

IPI PhD student, Nur Nazmi Liyana Mohd Napi has been awarded the Young Scientist Award from Japan Meteorological Corporation in the 2023 International Conference on CMAS-Asia-Pacific held on 19 - 21 July 2023.



Tahniah

SR. SYED AHMAD FADHLI SYED ABDUL RAHMAN
Pelajar Kedoktoran (PhD) Institut Perubahan Iklim
telah terpilih menerima
"FIG Foundation Grant for the 4th FIG Young Surveyors Asia Pacific Meeting (4YSAPM)"
di
Seoul, South Korea
8th - 10th November 2023

Penyelia Utama : Prof. Madya Sr. Ts. Gs. Dr. Khairul Nizam Abdul Maulud

Ikhlas Daripada Seluruh Warga Institut Perubahan Iklim

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FIG FOUNDATION GRANT FOR THE 4th FIG YOUNG SURVEYORS ASIA PACIFIC MEETING (4YSAPM)

Congratulations to IPI PhD student, Sr. Syed Ahmad Fadhli Syed Abdul Rahman for receiving "FIG Foundation Grant for the 4th FIG Young Surveyors Asia Pacific Meeting (4YSAPM)". The meeting will be held in Seoul, Korea from 8-10 November 2023.



Tahniah

kerana menerima tajaan penuh
NSCT International Internship Pilot Program (IIPP)
bertempat di
**Cloud and Aerosol Laboratory (CAL),
National Central University, Taiwan**
bagi tempoh
1 November 2023 - 31 Januari 2024

TEOH HWAII LENG
Pelajar Sarjana
Institut Perubahan Iklim
Universiti Kebangsaan Malaysia

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INTERNATIONAL INTERNSHIP PILOT PROGRAMME

Congratulations to IPI Master's student Teoh Hwai Leng, for being fully funded by National Central University (NCU), Taiwan, under the NSCT International Internship Pilot Programme (IIPP) from 1 November 2023 to 31 January 2024.



Tahniah

kerana menerima tajaan penuh
Program Lawatan Penyelidikan
bertempat di
UK Centre for Ecology & Hydrology (UKCEH)
di bawah jalinan MoA antara UKM-UKCEH
bagi tempoh
15-21 January 2024

AULIA NISA'UL KHOIR
Pelajar Sarjana
Institut Perubahan Iklim
Universiti Kebangsaan Malaysia

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SPONSORSHIP TO UK CENTRE FOR ECOLOGY & HYDROLOGY (UKCEH)

Congratulations to IPI Master student, Aulia Nisa'ul Khoir for being sponsored to do a research visiting program at UK Centre for Ecology & Hydrology (UKCEH).

ANUGERAH BITARA UTAMA UKM 2023



Congratulations to the Institute of Climate Change (IPI) for winning the "Anugerah Bitara Utama UKM 2023" in the Institutional Category. The award was presented at the official ceremony of Majlis Anugerah Bitara UKM 2023 on September 26, 2023, at Bangi Resort Hotel. This achievement highlights the institute's dedication and contributions to climate change and related fields, making it a proud moment for all institute staff and students.



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