

**UM
STEM**
SCIENCE TECHNOLOGY ENGINEERING MATHEMATICS

UM STEM ACTIVITIES

GREAT STEM EDUCATION TRAIN-THE-TRAINERS WORKSHOP

7 - 8 December 2024

NXP Room, Faculty of Engineering

Organiser: The British High Commission KL (BHC KL)

UK Campaign partner: UK STEM Learning and CSA Catapult

Strategic partner: Universiti Malaya STEM Centre



54

Universiti Malaya
(PKUM, AKIUM, PASUM,
Faculty of Education)



14

Universiti
Putra
Malaysia



12

Universiti
Kebangsaan
Malaysia



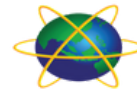
12

Universiti
Tenaga
Nasional



11

Monash
University



11

Asia Pacific University
of Technology &
Innovation (APU)

GREAT STEM Education Train-the-Trainers Workshop - Empowering the Next Generation of STEM Educators by the British High Commission Kuala Lumpur (@ukinmalaysia)!

On 7-8 December 2024, My STEM Ambassador from leading Malaysian universities gathered to learn from Elizabeth Calvert, Science and STEM Engagement Lead at STEM Learning UK. This workshop was crucial in preparing for the upcoming GREAT STEM School Tour 2025 from 7-17 January 2025.

My STEM Ambassador participants from:

- Universiti Malaya (PKUM, AKIUM, PASUM, Faculty of Education)
- Universiti Putra Malaysia
- Universiti Kebangsaan Malaysia
- Universiti Tenaga Nasional
- Asia Pacific University of Technology & Innovation (APU)
- Monash University

Together, we're inspiring the next generation of STEM leaders!



STEM MINI THEATER COMPETITION

Organiser: National STEM Association (NSA)

The primary objective was to highlight the innovative products created by B40 students. This process involved several steps: producing an innovative product, conducting innovation studies, creating a product prototype, developing a video staging script for a mini theater, and ultimately presenting the innovative product on a mini theater stage. The NSA has initiated the STEM Mini Theatre project as a first step in identifying and nurturing STEM talents and skills.

SELANGOR: 3 - 4 July 2024

**Jubli Perak Sultan Abdul
Aziz Hall**

SABAH: 16 - 17 July 2024

**Resital Universiti Malaysia
Sabah (UMS) Hall**



Capacity Building CIAST@Ipoh

10 - 11 July 2024

Ipoh, Perak

The UM STEM Centre was invited to conduct a Capacity Building and Digital STEM Workshop for TVET/CIAST officers. The aim of the workshop was to share knowledge and promote an understanding of how STEM can be integrated into TVET teaching materials, particularly through the use of digital tools.



DIGITAL STEM CIAST @ MELAKA

14 - 15 November 2024

Malacca



KHALIFAH MODEL SCHOOL VISIT

5 September 2024

High Impact Research, Building (HIR), UM

On 5th September, students from Khalifah Model School visited the High Impact Research (HIR) Building at UM for an exciting STEM tour and activities, including building a 'Popsicle Tower', taking on the 'Cup Stack Challenge', and exploring 'Spot the pH'. The students and teachers also had the opportunity to tour two labs within the HIR Building, where they learned about the equipment and research tools used in scientific experiments.

We hope that the students gained valuable insights and inspiration from this enriching experience!



A Knowledge Sharing Initiative

AgroSTEM Talk

11 September 2024

AudiTAR, Malay College Kuala Kangsar (MCKK), Perak

The MCKK has invited the UM STEM Centre to give a talk on AgroSTEM, highlighting how STEM elements are important in agricultures. The AgroSTEM Club in MCKK plays an important role to serve as a platform where students learn about the latest advancements in agriculture, such as precision farming, biotechnology, sustainable practices, and the use of robotics and artificial intelligence. Through hands-on projects, field trips, and collaborations with industry experts, the club promotes critical thinking, problem-solving, and creativity; thus connecting students with real-world applications and career opportunities.



UM STEM DISCOVERY X PHARMACY x PJMUM

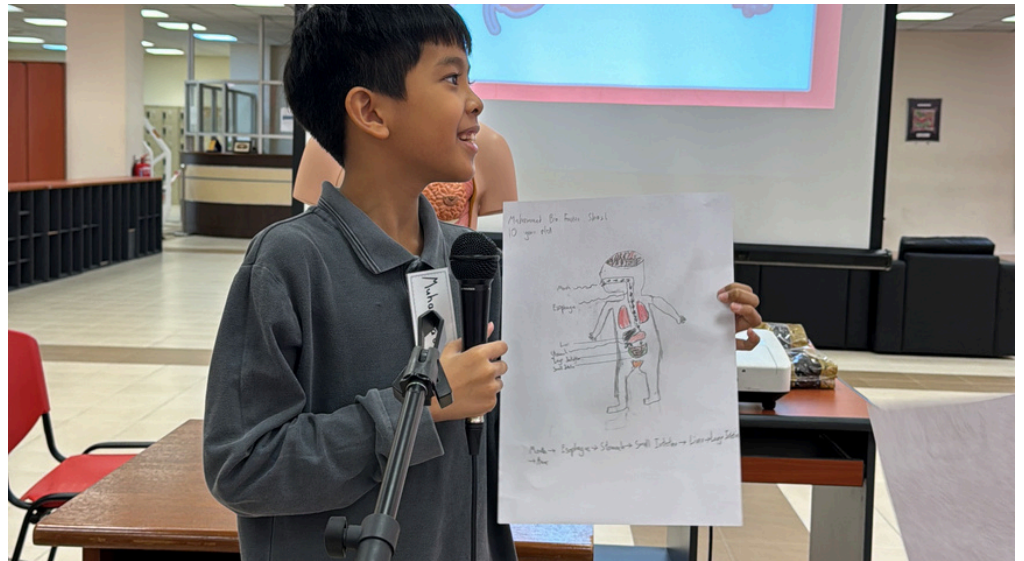
18 - 20 September 2024
PASUM



What an incredible journey at the UM STEM Discovery X Pharmacy Program X Persatuan Juruteknologis Makmal (PJMUM)!

From exciting hands-on experiments to discovering the wonders of STEM, our young participants had an unforgettable experience. With the special collaboration with the UM Faculty of Pharmacy and the Scientist Junior Badge program by Persatuan Juruteknologis Makmal (PJMUM), we've inspired the next generation of scientists and innovators. A big thank you to all the kids, parents, and volunteers who made this event a huge success! Let's continue fostering curiosity and creativity in STEM for a brighter future.





DESIGN THINKING WORKSHOP – SAMSUNG SOLVE FOR TOMORROW

19 October 2024

Conference Room, Faculty of Built Environment

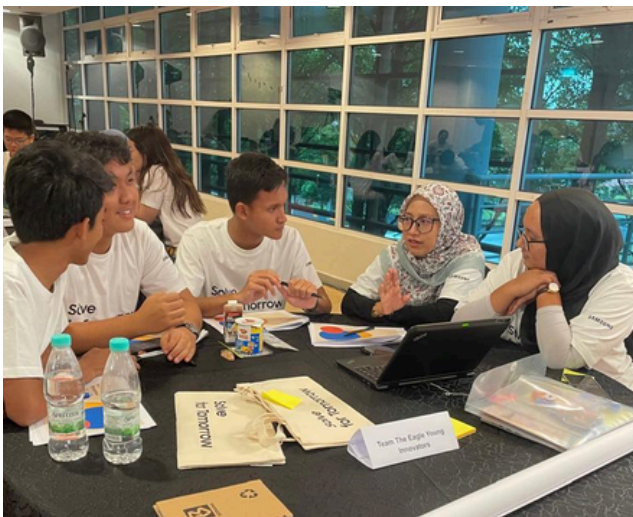
“This design thinking-based competition aims to make STEM exploration more enjoyable, relevant, and meaningful for youths, while encouraging critical-thinking and problem-solving. It also allows students to apply their learned knowledge to real-world challenges and enable them to spark positive change within the community,”

Assoc. Prof. Ir. Dr. Mas Sahidayana Mohktar, Director of Universiti Malaya STEM Centre



Design thinking is a practice that helps facilitators and students learn and lead in new ways. The design thinking process goes hand in hand with STEM education. Leveraging design thinking allows us to come together to generate creative, energizing, and tangible solutions to complex problems.”

SAMSUNG SOLVE FOR TOMORROW
TOOLKIT



KLESF THE KUALA LUMPUR ENGINEERING SCIENCE FAIR (KLESF)

8 - 10 November 2024

MINES International Exhibition and Convention Centre (MIECC)

An unforgettable day at MIECC Seri Kembangan as our team brought the excitement of STEM to life! Visitors were amazed by our interactive STEM activities, made possible by the incredible collaboration with the Faculty of Computer Science and Information Technology UM and the Faculty of Sports and Exercise Science UM. A huge thank you to everyone who joined us and to our brilliant partners for making this event such a success. Together, we're inspiring the future of innovation!

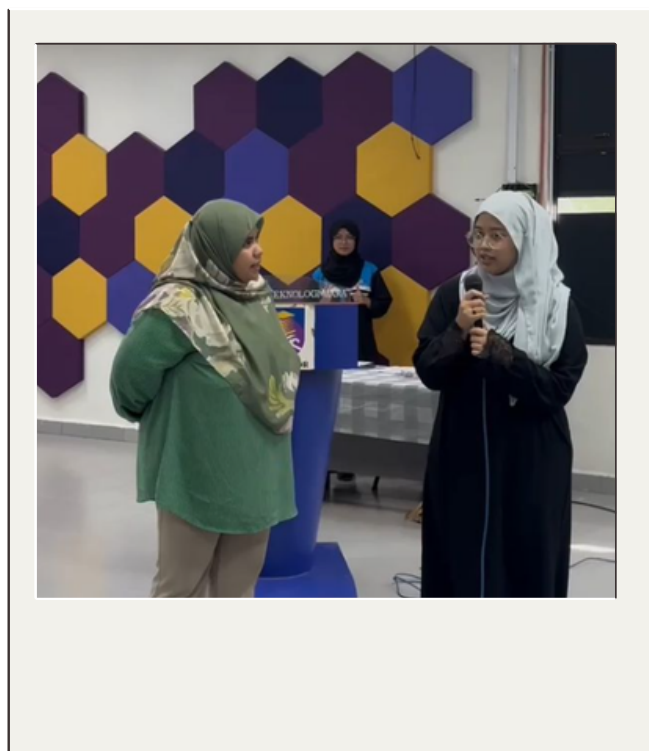
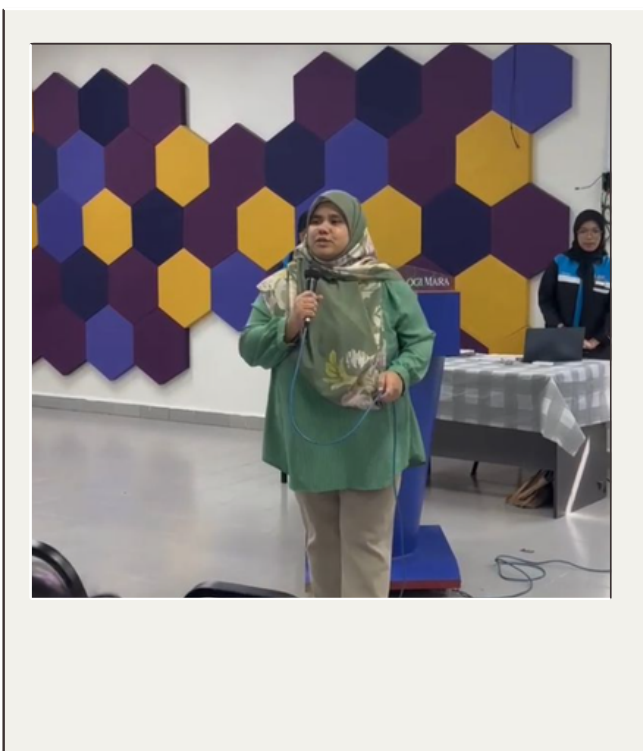


'THE POWER OF STEM' UITM SEGAMAT PROGRAM

9 November 2024

UiTM Kampus Segamat, Johor

A day of inspiration and learning as our incredible Director, Assoc. Prof. Ir Dr. Mas Sahidayana Mohktar, captivated diploma students with the transformative power of STEM. From groundbreaking innovations to real-world applications, the session ignited curiosity and highlighted the endless possibilities within the STEM fields.



THE K2K KELAB MYSTAR

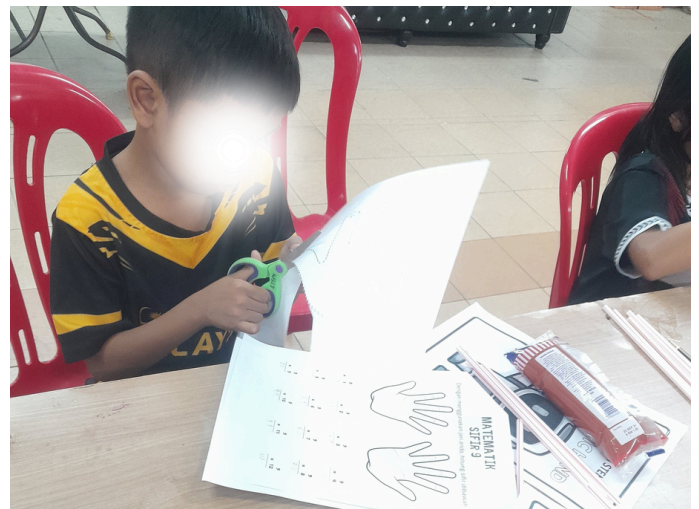
Ogos-Oktober 2024

PA Seri Kota and PPR Taman Mulia

Organiser: Think City

This program encourages children to explore STEM through hands-on fun! Participants will build a towering Jelly Bean Tower, design a moving paddle boat, craft a functional robotic hand, launch objects with a catapult, and watch dancing raisins come to life through science. Learn, create, and discover the wonders of engineering, biology, physics, and chemistry!

Disclaimer: The organiser intends to blur children's faces for child protection reasons.

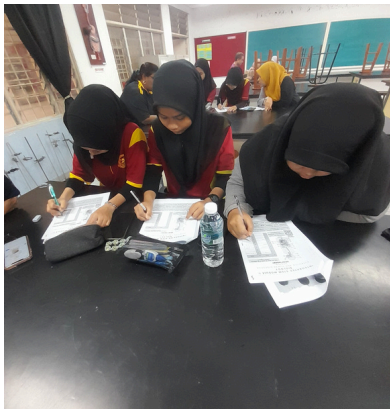




SK SRI SUBANG JAYA & SMK COCHRANE: MAYBANK CAHAYA KASIH

9 & 23 November 2024
SK Sri Subang Jaya & SMK Cochrane

Bringing Science to Life! Partnering with Maybank Cahaya Kasih, we transformed learning at SK Sri Subang Jaya & SMK Cochrane with fun, hands-on science experiments and engaging activities. From bubbling chemical reactions to interactive challenges, students explored the wonders of science in a whole new way. Special thanks to our dedicated volunteers and educators for making this initiative a success and inspiring the next generation of innovators!



KIDDO SCIENCE PROGRAM

23 November 2024
Kompleks Perdana Siswa (KPS), UM
Organiser: Kiddo Science

Here's a glimpse of an amazing event organized by Kiddo Science. This program was filled with **Innovation**, **Excitement**, and **Teamwork**! From interactive experiments to exciting discoveries, the kids amazed us with their **curiosity** and **creativity**. The vibrant atmosphere, laughter, and energy made the day truly unforgettable! A big **THANK YOU** to our little scientists, parents, and supporters for making this event a grand success. Together, we're inspiring the next generation of innovators!



MENTOR MENTEE SK PERDANA JAYA SSI9

23 November 2024

Sekolah Kebangsaan Perdana Jaya SS19
PROGRAM SciTech4U – STEM CAMP MOSTI 2024

The UM STEM Centre is a strategic partner of PIBG SK Perdana Jaya SS19 in facilitating the Mentor Mentee program for students. The primary objective of this program is to support and enhance students' interest in STEM by offering hands-on activities accompanied by clear explanations from the mentors.



MBPJ02-2024: GUARDING OUR WATER TOGETHER - UNVEILING THE HIDDEN WORLD OF WATER SECURITY AND ECOSYSTEM (PJ SEED 5.0)

23 November 2024

Basketball Court, Taman Aman, Petaling Jaya

Funded by Community Grant for PJ Sustainability - PJ S.E.E.D 5.0 (MBPJ)

The community project is titled "Guarding Our Water Together: Unveiling the Hidden World of Water Security and Ecosystems." The programs include awareness talks focused on water, particularly regarding Aman Lake, exhibitions and STEM activities by UM students, a recycling and buy-back program, a car boot sale, composting initiatives, and a park cleaning effort. The audience includes residents from the Petaling Jaya neighborhood who are concerned about their lake and the environment and want to know about the progress made in the project.



FESTIVAL OF IDEAS, PUTRAJAYA

27 - 29 November 2024

Putrajaya International Convention Centre (PICC)

The Putrajaya Festival of Ideas took place from November 27 to 29 at the Putrajaya International Convention Centre (PICC). This event provided a platform for the higher education community to share, generate, and promote ideas, innovations, and new technologies with the public. The UM STEM Centre was invited to participate in the exhibition, showcasing STEM-related activities, research, technology, and training packages to the public. This festival facilitated interaction between the university and the community, allowing both parties to engage with one another and learn about recent activities and achievements.



STEM @ MUSEUM AND ART GALLERY, BANK NEGARA MALAYSIA (MAG BNM)

30 November, 1, 7, 8, 14 and 15 December 2024

Museum and Art Gallery

Organiser: Bank Negara Malaysia



As part of the Children's Festival program, the UM STEM Centre collaborated with MAG BNM to conduct fun STEM activities for children over the last two weekends (30 Nov, 1 Dec, 7 Dec, and 8 Dec).

The activities included:

- Lava Lamp
- Tea Time Chemistry
- UV Beads
- Coin Bucket Tower



SAMSUNG SOLVE FOR TOMORROW 2024 – GRAND FINALE

Great Work!

7 December 2024

Aloft Hotel, KL Central, Kuala Lumpur

Organiser: Samsung Malaysia Electronics (SME) Sdn. Bhd.

Congratulations to all the teams who participated and shared their incredible ideas to create positive changes in their communities through STEM. From innovative solutions to extraordinary creativity, students aged 13-15 have proven themselves as changemakers of the future. Thank you to all participants, mentors, teachers, and schools for making this program a success. Let's continue building a brighter future together!

SSFT 2024

51
SCHOOLS

SSFT 2024

282
STUDENTS



MORE EVENTS

E-LEARNING TO SUPPORT STEM & TVET SKILLS DEVELOPMENT
webinar

SPEAKER
PROFESSOR HITENDRA PILLAY
QUEENSLAND UNIVERSITY OF TECHNOLOGY PROFESSOR

REGISTER NOW!

09 OCT

2:30 - 4:30 PM
ASIA/SINGAPORE

Belanjawan 2025
MALAYSIA MADANI

BELANJAWAN 2025 : PERKARAH PENDIDIKAN MEMBANGUN BELIA

BERSAMA
IR. DR. MAS SAHIDAYANA MOKHTAR
PENGARAH PUSAT PENDIDIKAN STEM UNIVERSITI MALAYA

KHAMIS
17 OKTOBER 2024
10.30 PAGI

NASIONAL
Semilana Di Hari

RedI

RESEARCH & EDUCATION INSIGHT 2024

FUTURE OF SAFETY AND HEALTH: DIGITALIZATION, AI, AND BIG DATA

WEDNESDAY - 5th NOV 2024

9.00 AM - 6.00 PM
ONLINE WEBINAR VIA ZOOM

ORGANIZER: MYREF, UNIVERSITI MALAYA, STEM

SUPPORTING PARTNER: MSOSH

REGISTER NOW

Malaysia Research and Education Foundation
myref_my | www.myref.org.my | 63-87334877

Open to all Secondary School Students

SPACE & CLIMATE CHANGE

November 2, 2024
9:00 am - 10:00 am
Online

www.aprilorbit.com

TINTA Temu
with **UM STEM**

STEM: Pemacu Peradaban Islam

11th Disember 2024 | 9 pm - 10 pm
Facebook Live

SPEAKER
Dr. Raihan Ismil
Pensyarah Kanan, UM STEM Centre

MODERATOR
Yumni Yasin
Pensyarah Kanan, UM STEM Centre

sekolahhinta.edu.my | +603-5567 9408 | +6010-261 5010

STEM PROGRAMME

7-12 YEARS
13-15 YEARS
16-17 YEARS

STEM Programme

Fun Activities such as DIY Lung, Math Maze, Robotics Straw Hand, Balloon Car, Cup Shooter and more!

7 - 12 years

WHY US ?

- Experience Universiti Malaysia (UM) Environment at Young Age
- Special Coaching on Math & Science
- Venue at UM STEM Centre
- Certificate Awarded Session

2024 Intake

STEM Programme

Fun Activities such as Popsicle Tower, Rubber Band Car, DIY Torchlight, Geometrical Shapes, Corn Flour Wonders and more!

13 - 15 years

WHY US ?

- Experience Universiti Malaysia (UM) Environment at Young Age
- Special Coaching on Math, Science, Physics, Chemistry
- Venue at UM STEM Centre
- Certificate Awarded Session

2024 Intake

STEM Programme

Fun Activities such as Lemon Batteries, Brain Boosting, Cup Stack Challenge, Magic of Milk.

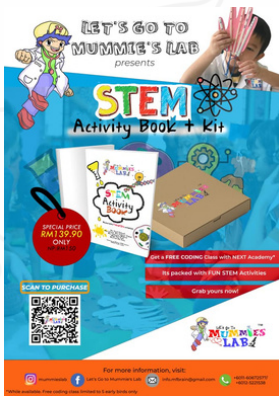
16 - 17 years

WHY US ?

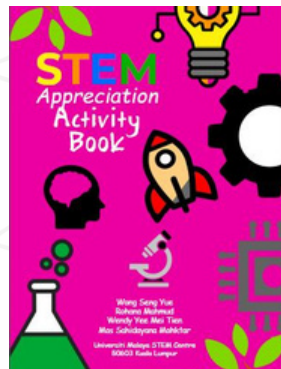
- Experience Universiti Malaysia (UM) Environment at Young Age
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2024 Intake

Publications



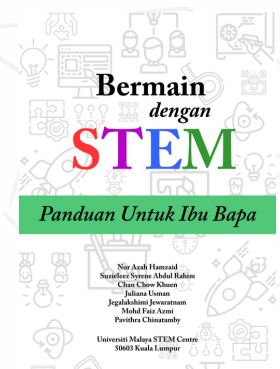
STEM ACTIVITY BOOK & Kit



STEM APPRECIATION ACTIVITY BOOK



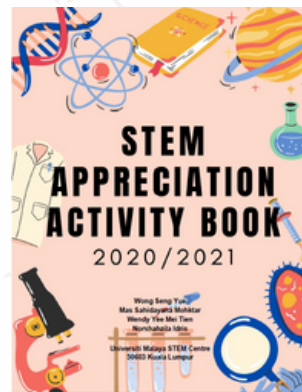
BEST PRACTICES IN STEM MENTOR MENTEE



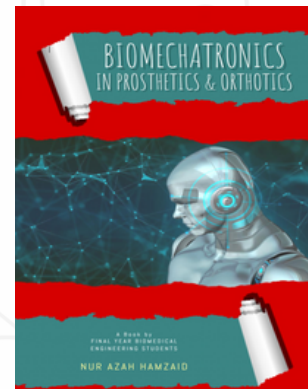
BERMAIN DENGAN STEM



Belajar Rukun Negara melalui STEM



STEM APPRECIATION ACTIVITY BOOK 2020/2021



Biomechanics in prosthetics & Orthotics

Office

Contact us:

Ir. Dr. Mas Sahidayana Mohktar (Director)
 Norshahzila Idris (Assistant Registrar)
 Nursyahirah Ahamd Shukri (Project Officer)
 UM STEM Centre Office
 Ground Floor
 High Impact Research (HIR) Building
 Universiti Malaya, 50603 Kuala Lumpur
 Tel: +603- 7967 3490

More info, kindly contact us at 03-7967 3490 or stem@um.edu.my

MICROSOFT- UM STEM Learning Space



In affiliation:



Social Advancement
 & Happiness
 Research Cluster
 Universiti Malaya



stem.um.edu.my



stem@um.edu.my



UM STEM Centre



umstem_centre



UM STEM Centre