

PROF. MADYA DR. AZIRA BINTI KHALIL

PENSYARAH UNIVERSITI DS14

CONTACT

PHONE
88732

E-MAIL
azira@usim.edu.my

FACULTY
Fakulti Sains Dan Teknologi

SUPERVISION

	COMPLETED	ONGOING
PhD	1	0
Master	0	2

AREAS OF EXPERTISE

- Medical Radiography And Imaging
- Digital Image Processing Algorithm And Techniques
- Technique And Instrumentation In Medical Device, Equipment And System

ACADEMIC QUALIFICATION

- 2018 **PhD** - Biomedical Engineering
- 2013 **Master** - Medical Radiation Physics
- 2011 **Bachelor** - Medical Imaging

RESEARCH

1. **EARLY DETECTION OF ATRIAL FIBRILLATION USING MACHINE LEARNING ON ECG AND HRV DATA**
   2025 | GERAN PENYELIDIKAN USIM RACER | ON GOING | CO-RESEARCHER
2. **CASHLESS PAYMENT ADOPTION IN NEGERI SEMBILAN: A CASE STUDY OF THE GENERAL PUBLIC AND GOVERNMENT SECTOR UNDER THE MCMC CASHLESS SOCIETY SCALING UP PROGRAMME**
   2025 | GERAN PENYELIDIKAN AGENSI KERAJAAN | ON GOING | CO-RESEARCHER
3. **FETAL CARDIAC ABNORMALITIES DETECTION IN ULTRASOUND IMAGING THROUGH AN INTEGRATED DEEP LEARNING FRAMEWORK**
   2024 | GERAN KPT | ON GOING | MAIN RESEARCHER
4. **STUDY ON THE ACCESSIBILITY OF TELEVISION AND RADIO SERVICES FOR PERSONS WITH DISABILITIES**
   2024 | GERAN PENYELIDIKAN AGENSI KERAJAAN | ON GOING | CO-RESEARCHER
5. **ULTRASOUND GEL**
   2023 | GERAN PENYELIDIKAN LAB2MARKET | ON GOING | CO-RESEARCHER

RESEARCH

6. AWARENESS, PERCEPTION, ACCEPTANCE AND ADOPTION OF MALAYSIA'S NATIONAL DIGITAL IDENTITY (NDI) INITIATIVES FROM SERVICE PROVIDERS' PERSPECTIVE

2022 | GERAN PENYELIDIKAN AGENSI KERAJAAN | COMPLETED | MAIN RESEARCHER

7. ASSESSMENT OF COMPETENCY GAP TO ENHANCE WORKFORCE PERFORMANCE IN 5G VERTICAL AREAS AND APPLICATIONS

2022 | GERAN PENYELIDIKAN AGENSI KERAJAAN | COMPLETED | CO-RESEARCHER

8. INVESTIGATION OF TRI-MODALITY IMAGE REGISTRATION FOR NAVIGATING CARDIOVASCULAR DISEASE TREATMENT PROCEDURE

2019 | GERAN PENYELIDIKAN USIM | COMPLETED | MAIN RESEARCHER

9. THE FACTORS AND BRAIN CONNECTIVITY OF LOVE HURTS PHENOMENON AMONG UNMARRIED FEMALES USING FMRI EXTENDED BAYESIAN MODEL ANALYSIS

2019 | GERAN PENYELIDIKAN USIM | COMPLETED | CO-RESEARCHER

PUBLICATION

1. ASSESSING PATIENT-CENTRED CARE AND INFRASTRUCTURE QUALITY IN MALAYSIAN PUBLIC HOSPITALS : A CROSS-SECTIONAL SURVEY

THE 2 INTERNATIONAL ND CONFERENCE OF PHAS GLOBAL HEALTH : BUILDING SUSTAINABLE HEALTH AND WELL-BEING FOR ALL AGES

2025 | PROCEEDING | NON-INDEX | CORRESPONDING AUTHOR

2. CAMERA-BASED URINE STRIP DETECTOR FOR HOME AND CLINICAL APPLICATION

SELANGOR TECHSPHERE INNOVATION COMPETITION (STIC 2025)

2025 | PROCEEDING | NON-INDEX | CORRESPONDING AUTHOR

3. CONNECTED BIOMEDICAL DEVICES AND DIGITAL INTEGRATION

BIOMEDICAL ENGINEERING: AI AND TECHNOLOGICAL INNOVATIONS

2025 | CHAPTER IN BOOK | MAIN AUTHOR

4. DEVELOPMENT OF A WEB-BASED MATERNAL HEALTH MONITORING SYSTEM: ADVANCING BEYOND MANUAL RECORD-KEEPING

BIOMEDICAL ENGINEERING: AI AND TECHNOLOGICAL INNOVATION

2025 | CHAPTER IN BOOK | MAIN AUTHOR

5. AWARENESS, PERCEPTION, ACCEPTANCE, AND ADOPTION OF MALAYSIA'S NATIONAL DIGITAL IDENTITY INITIATIVES FROM SERVICE PROVIDERS' PERSPECTIVE

MEDIA MATTERS DIGITAL SOCIETY RESEARCH REPORT VOL 7

2025 | CHAPTER IN BOOK | MAIN AUTHOR

6. EMPOWERING PREDICTIVE MAINTENANCE OF MEDICAL EQUIPMENT THROUGH AI-DRIVEN CONDITION MONITORING

BIOMEDICAL ENGINEERING AI AND TECHNOLOGICAL INNOVATIONS

2025 | CHAPTER IN BOOK | CO-AUTHOR

PUBLICATION

7. A POLICY EXAMINATION OF COVID-19 IMPACT ON THE RADIOLOGY DEPARTMENT STANDARD OPERATING PROCEDURES (SOPS): THE MALAYSIAN EXPERIENCE

MALAYSIAN JOURNAL OF SCIENCE, HEALTH & TECHNOLOGY

2024 JOURNAL OTHER DATABASE CORRESPONDING AUTHOR

8. ADVENTUROUS ZONE OF INNOVATION AND EDUCATION (A.Z.I.E LAB)

INTERNATIONAL UNIVERSITY CARNIVAL ON E-LEARNING (IUCEL 2024) X KONGRES DAN PERTANDINGAN INOVASI PENGAJARAN & PEMBELAJARAN UKM (KNOVASI 2024)

2024 PROCEEDING NON-INDEX MAIN AUTHOR

9. MARKETING THE 5G ECOSYSTEM READINESS AS A GAME-CHANGER FOR THE HEALTHCARE INDUSTRY: TRANSFORMING IDEAS INTO REALITY

INTERNATIONAL CONFERENCE ON BUSINESS, ACCOUNTING AND FINANCE: EMBRACING NEW BUSINESS PARADIGM SHIFTS

2024 PROCEEDING NON-INDEX MAIN AUTHOR

10. INTEGRATING CHATBOT TECHNOLOGY INTO PRIMARY HEALTH CARE: ENHANCING MENTAL HEALTH SUPPORT FOR THE ADOLESCENT POPULATION

THE 1ST INTERNATIONAL CONFERENCE: GLOBAL HEALTH: MULTI APPROACH FOR PRIMARY HEALTHCARE SYSTEM

2024 PROCEEDING NON-INDEX MAIN AUTHOR

11. KOSIST & SCITEX 2024 EMPOWERING THE FUTURE: SUSTAINABLE INNOVATIONS BY YOUNG MINDS

2024 BOOK EDITOR

12. ASSESSMENT OF COMPETENCY GAP TO ENHANCE WORKFORCE PERFORMANCE IN 5G VERTICAL AREAS AND APPLICATIONS

MEDIA MATTERS VOLUME 6

2024 CHAPTER IN BOOK CO-AUTHOR

13. TRIMODALITY IMAGE REGISTRATION OF ULTRASOUND, CARDIAC COMPUTED TOMOGRAPHY, AND MAGNETIC RESONANCE IMAGING FOR TRANSCATHETER AORTIC VALVE IMPLANTATION AND REPLACEMENT IMAGE GUIDANCE

HEALTH AND TECHNOLOGY

2023 JOURNAL SCOPUS CORRESPONDING AUTHOR

14. A PATIENT-CENTERED HOSPITAL IN MALAYSIA IN ACCORDANCE WITH MAQASID SYARIAH PRINCIPLES: A COMPREHENSIVE REVIEW AND PROSPECTIVE RESEARCH DIRECTIONS

INTERNATIONAL JOURNAL OF ISLAMIC THOUGHT

2023 JOURNAL WOS CO-AUTHOR

15. AN OVERVIEW OF DEEP LEARNING METHODS FOR LEFT VENTRICLE SEGMENTATION

COMPUTATIONAL INTELLIGENCE AND NEUROSCIENCE

2023 JOURNAL SCOPUS CORRESPONDING AUTHOR

16. FULLY AUTOMATIC LEFT VENTRICLE SEGMENTATION USING BILATERAL LIGHTWEIGHT DEEP NEURAL NETWORK

LIFE

2023 JOURNAL OTHER DATABASE CO-AUTHOR

PUBLICATION

17. ASSESSING PATIENT-CANTERED HEALTHCARE THROUGH MAQASID SHARIAH PRINCIPLES: A PUBLIC DOCUMENT ANALYSIS OF PUBLIC HOSPITALS IN MALAYSIA

CONFERENCE PROCEEDINGS OF ASEAN POSTGRADUATE CONFERENCE 2023

2023 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

18. PERFORMANCE ANALYSIS OF MACHINE LEARNING AND DEEP LEARNING ARCHITECTURES ON EARLY STROKE DETECTION USING CAROTID ARTERY ULTRASOUND IMAGES

FRONTIERS IN AGING NEUROSCIENCE

2022 JOURNAL SCOPUS CORRESPONDING AUTHOR

19. CT-MRI DUAL INFORMATION REGISTRATION FOR THE DIAGNOSIS OF LIVER CANCER: A PILOT STUDY USING POINT-BASED REGISTRATION.

CURRENT MEDICAL IMAGING REVIEWS

2022 JOURNAL ISI CORRESPONDING AUTHOR

20. MULTICLASS CONVOLUTION NEURAL NETWORK FOR CLASSIFICATION OF COVID-19 CT IMAGES

COMPUTATIONAL INTELLIGENCE AND NEUROSCIENCE

2022 JOURNAL SCOPUS CO-AUTHOR

21. PROSTATE CANCER MONITORING USING MRI MONOMODAL FEATURE-BASED REGISTRATION

JURNAL FIZIK MALAYSIA

2022 JOURNAL OTHER DATABASE CORRESPONDING AUTHOR

22. AN OVERVIEW OF DEEP LEARNING TECHNIQUES ON CHEST X-RAY AND CT SCAN IDENTIFICATION OF COVID-19

COMPUTATIONAL AND MATHEMATICAL METHODS IN MEDICINE

2021 JOURNAL ISI MAIN AUTHOR / CONTACT PERSON IN USIM

23. PRIORITISATION ASSESSMENT AND ROBUST PREDICTIVE SYSTEM FOR MEDICAL EQUIPMENT: A COMPREHENSIVE STRATEGIC MAINTENANCE MANAGEMENT

FRONTIERS IN PUBLIC HEALTH

2021 JOURNAL ERA CO-AUTHOR

24. BRAIN TUMOUR TEMPORAL MONITORING OF INTERVAL CHANGE USING DIGITAL IMAGE SUBTRACTION TECHNIQUE

FRONTIERS IN PUBLIC HEALTH

2021 JOURNAL ERA CORRESPONDING AUTHOR

25. DEVELOPMENT OF AUTOMATIC REMINDER SYSTEM FOR GERIATRIC MEDICINE INTAKE

MALAYSIAN JOURNAL OF SCIENCE HEALTH & TECHNOLOGY

2021 JOURNAL OTHERS DATABASE CORRESPONDING AUTHOR

26. MALAYSIAN NURSES? KNOWLEDGE OF RADIATION PROTECTION: A CROSS-SECTIONAL STUDY

RADIOLOGY RESEARCH AND PRACTICE

2021 JOURNAL SCOPUS CORRESPONDING AUTHOR

PUBLICATION

27. X-RAY CARPAL BONE SEGMENTATION AND AREA MEASUREMENT

MULTIMEDIA TOOLS AND APPLICATIONS

2021 JOURNAL ISI MAIN AUTHOR / CONTACT PERSON IN USIM

28. DEVELOPMENT OF AUTOMATED MINI GREENHOUSE EMBEDDED WITH ARDUINO

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH IN ENGINEERING INNOVATION

2020 JOURNAL OTHER DATABASE CO-AUTHOR

29. MASK R-CNN FOR SEGMENTATION OF LEFT VENTRICLE

3RD INTERNATIONAL CONFERENCE FOR INNOVATION IN BIOMEDICAL ENGINEERING AND LIFE SCIENCES.

2020 PROCEEDING NON-INDEX CO-AUTHOR

30. ANISOTROPIC DIFFUSION FOR REDUCTION OF SPECKLE NOISE IN KNEE ARTICULAR CARTILAGE ULTRASOUND IMAGES

3RD INTERNATIONAL CONFERENCE FOR INNOVATION IN BIOMEDICAL ENGINEERING AND LIFE SCIENCES

2020 PROCEEDING NON-INDEX CO-AUTHOR

31. SOLID STATE SCIENCE AND TECHNOLOGY XXX

2020 BOOK CO-EDITOR

32. PILOT STUDY ON MACHINE LEARNING FOR AORTIC VALVE DETECTION IN ECHOCARDIOGRAPHY IMAGES

JOURNAL OF MEDICAL IMAGING AND HEALTH INFORMATICS

2019 JOURNAL ERA CO-AUTHOR

33. REAL-TIME DETECTION OF AORTIC VALVE IN ECHOCARDIOGRAPHY USING CONVOLUTIONAL NEURAL NETWORKS

CURRENT MEDICAL IMAGING

2019 JOURNAL WOS CO-AUTHOR

34. CARPAL BONE SEGMENTATION USING FULLY CONVOLUTIONAL NEURAL NETWORK

CURRENT MEDICAL IMAGING REVIEWS

2019 JOURNAL ISI CO-AUTHOR

35. AN OVERVIEW ON IMAGE REGISTRATION TECHNIQUES FOR CARDIAC DIAGNOSIS AND TREATMENT

CARDIOLOGY RESEARCH AND PRACTICE

2018 JOURNAL WOS MAIN AUTHOR

36. DETECTION OF AORTIC VALVE FROM ECHOCARDIOGRAPHY IN REAL-TIME USING CONVOLUTIONAL NEURAL NETWORK

2018 IEEE-EMBS CONFERENCE ON BIOMEDICAL ENGINEERING AND SCIENCES (IECBES)

2018 PROCEEDING NON-INDEX CO-AUTHOR

37. 2D TO 3D FUSION OF ECHOCARDIOGRAPHY AND CARDIAC CT FOR TAVR AND TAVI IMAGE GUIDANCE

MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING

2017 JOURNAL WOS MAIN AUTHOR

PUBLICATION

38. MULTIMODALITY REGISTRATION OF TWO-DIMENSIONAL ECHOCARDIOGRAPHY AND CARDIAC CT FOR MITRAL VALVE DIAGNOSIS AND SURGICAL PLANNING

JOURNAL OF MEDICAL IMAGING

2017 JOURNAL WOS MAIN AUTHOR

39. MITRAL VALVE RIGID REGISTRATION USING 2D ECHOCARDIOGRAPHY AND CARDIAC COMPUTED TOMOGRAPHY

2017 INTERNATIONAL CONFERENCE ON APPLIED SYSTEM INNOVATION (ICASI)

2017 PROCEEDING NON-INDEX MAIN AUTHOR

40. ECHOCARDIOGRAPHY TO CARDIAC CT IMAGE REGISTRATION: SPATIAL AND TEMPORAL REGISTRATION OF THE 2D PLANAR ECHOCARDIOGRAPHY IMAGES WITH CARDIAC CT VOLUME

2016 IEEE 18TH INTERNATIONAL CONFERENCE ON E-HEALTH NETWORKING, APPLICATIONS AND SERVICES (HEALTHCOM)

2016 PROCEEDING NON-INDEX MAIN AUTHOR

AWARDS/RECOGNITION

1. ANUGERAH LIBATSAMA KOMUNITI

2025 UNIVERSITY

2. ANUGERAH PENERIMA GERAN PENYELIDIKAN

2025 UNIVERSITY

3. ANUGERAH PENGAJARAN

2025 UNIVERSITY

4. ANUGERAH PENYELIA TERBILANG

2025 UNIVERSITY

5. STAF CONTOH BULAN MAC

2025 UNIVERSITY

6. STAF CONTOH BULAN SEPTEMBER

2025 UNIVERSITY

7. ANUGERAH LNPT 95% KEATAS

2025 UNIVERSITY

8. ANUGERAH PENERBITAN JURNAL BERINDEKS WOS/SCOPUS/MYCITE

2025 UNIVERSITY

9. ANUGERAH AHLI AKADEMIK HARAPAN

2025 UNIVERSITY

AWARDS/RECOGNITION

10. ANUGERAH INOVASI

2025 UNIVERSITY

11. SWIFTCORE: A MEDICAL STOPCOCK DEVICE

INNOVATHON MUSIM KE-3

2025 KEBANGSAAN CERTIFICATE OF APPRECIATION

12. STRENGTHENING UNDERGRADUATE ALGEBRA LEARNING WITH ALGEB0X: A HYBRID GAMIFIED PUZZLE APPROACH

2nd International 3 Minutes Research and Innovation Competition 2025 (3MRIC 2025)

2025 ANTARABANGSA SILVER

13. ALGEBRAX: THE PUZZLE REALM

7th International Putra Innocreative Carnival in Teaching and Learning (I-PICTL2025)

2025 ANTARABANGSA GOLD

14. ALGEBRAX: INNOVATIVE PUZZLE-BASED HYBRID LEARNING TOOL FOR ALGEBRA MASTERY

FESTIVAL OF TEACHING AND LEARNING IDEAS (FoTLI 2025)

2025 KEBANGSAAN GOLD

15. PORTABLE CAMERA-ASSISTED URINE STRIP DETECTION SYSTEM FOR OBJECTIVE URINALYSIS

2nd International 3 Minutes Research and Innovation Competition 2025 (3MRIC 2025)

2025 ANTARABANGSA GOLD

16. AZIE LAB: INNOVATING STEM & HEALTH EDUCATION FROM CAMPUS TO KAMPUNG

FESTIVAL OF TEACHING AND LEARNING IDEAS (FoTLI 2025)

2025 KEBANGSAAN SILVER

17. ADVENTUROUS ZONE OF INNOVATION AND EDUCATION (A.Z.I.E LAB):EMPOWERING MIND, ADVANCING HEALTH

7th International Putra Innocreative Carnival in Teaching and Learning (I-PICTL2025)

2025 ANTARABANGSA GOLD

18. A.Z.I.E LAB AS LIVING LAB FOR STEM AND HEALTH AWARENESS

SULAM@UPSI INNOVATION SHOWCASE 2025

2025 KEBANGSAAN SILVER

19. CAMERA-BASED URINE STRIP DETECTOR FOR HOME AND CLINICAL APPLICATION

SELANGOR TECHSPHERE INNOVATION COMPETITION (STIC 2025)

2025 KEBANGSAAN SILVER

20. A.Z.I.E LAB AS LIVING LAB FOR STEM AND HEALTH AWARENESS

SULAM@UPSI INNOVATION SHOWCASE 2025

2025 KEBANGSAAN BEST PAPER AWARD

AWARDS/RECOGNITION

21. ANUGERAH KUALITI

2024 UNIVERSITY

22. ANUGERAH PENERBITAN JURNAL BERINDEKS WOS/SCOPUS/MYCITE

2024 UNIVERSITY

23. ANUGERAH PENCAPAIAN RPI TERTINGGI

2024 UNIVERSITY

24. ANUGERAH LIBATSAMA KOMUNITI

2024 UNIVERSITY

25. ANUGERAH PENINGKATAN SITASI PENYELIDIKAN TERTINGGI

2024 UNIVERSITY

26. ADVENTUROUS ZONE OF INNOVATION AND EDUCATION (A.Z.I.E LAB)

International University Carnival on E-Learning (IUCEL) & The Congress and Innovation Competition in

2024 ANTARABANGSA GOLD

27. MATH FUSION

GREAT TEACHERS SUMMIT 2024

2024 ANTARABANGSA GOLD

28. FASTBORE STOPCOCK

INNOMed Innovation Pitching 2024

2024 ANTARABANGSA GOLD

29. THE ALGEBRA TRAIL

SCEINCE AND TECHNOLOGY RESEARCH EXPO (SCITEX)

2024 UNIVERSITI GOLD

30. INTEGRATING CHATBOT TECHNOLOGY INTO PRIMARY HEALTHCARE: ENHANCING MENTAL HEALTH SUPPORT FOR THE ADOLESCENT POPULATION IN MALAYSIA

The 1 International Conference of PHAS GLOBAL HEALTH : Multi Approach for Primary Healthcare System

2024 ANTARABANGSA GOLD

31. PERFORMANCE OF CONVOLUTIONAL NEURAL NETWORK ALGORITHM IN AUTOMATED DETECTION OF BONE FRACTURES

13TH INTERNATIONAL SEMINAR ON MEDICAL PHYSICS

2024 ANTARABANGSA GOLD

32. E-DEEN: INNOVATIONS IN ONLINE TALK THERAPY FOR ADOLESCENT MENTAL HEALTH

SCIENCE AND TECHNOLOGY RESERACH EXPO (SCITEX@20TH FST)

2023 UNIVERSITI BRONZE

AWARDS/RECOGNITION

33. ANATOMYAPPS WITH 3D HOLOGRAM PROJECTOR

Malaysia Technology Expo (MTE) 2023

2023 ANTARABANGSA SILVER

34. E-MATERNITY: ELECTRONIC MATERNAL HEALTHCARE RECORD SYSTEM (PROFESSIONAL)

VIRTUAL INNOVATION CEMPETITION 2023

2023 KEBANGSAAN GOLD

35. ANATOMY EDUCATION WITH 3D VISUALIZATION AND HOLOGRAM PROJECTION

VIRTUAL INNOVATION CEMPETITION 2023

2023 KEBANGSAAN GOLD

36. ANATOMYVISION+: ADVANCING ANATOMY EDUCATION WITH 3D VISUALIZATION, HOLOGRAM PROJECTION, AND MEDICAL DEVICE INTEGRATION

The International E-Content Development Competition 2023 (eCONDEV 2023)

2023 ANTARABANGSA GOLD

37. ANATOMYVISION: REVOLUTIONIZING ANATOMY EDUCATION WITH 3D VISUALIZATION AND HOLOGRAM PROJECTION FOR MEDICAL AND ALLIED HEALTH STUDENTS

International University Carnival On E-Learning (IUCEL 2023)

2023 ANTARABANGSA SILVER

38. ADVENTUROUS ZONE OF INNOVATION & EDUCATION (A.Z.I.E LAB): EMPOWERING MINDS, ADVANCING HEALTH

2nd National Conference on SULAM

2023 KEBANGSAAN SILVER

39. ANATOMYVISION: REVOLUTIONIZING ANATOMY EDUCATION WI TH 3D VISUALIZATION AND HALOGRAM PROJECTION FOR MEDICAL AND ALLIED HEALTH STUDENTS

INNOVATION BANK CHALLENGE 2023 (IBC2023)

2023 UNIVERSITI BRONZE

40. TRIFLOW HI-WAY: THE LARGE-BORE STOPCOCK FOR PARACENTESIS

SCIENCE AND TECHNOLOGY RESERACH EXPO (SCITEX@20TH FST)

2023 UNIVERSITI BRONZE

41. E-MATERNITY WEB-BASED SYSTEM

INVENTION, INNOVATION & DESIGN EXPOSITION 2022 (IIDEX)

2022 KEBANGSAAN SILVER

42. ANATOMYAPPS WITH 3D HOLOGRAM PROJECTOR

INVENTION, INNOVATION & DESIGN EXPOSITION 2022 (IIDEX)

2022 KEBANGSAAN SILVER

43. IRAD: WEB-BASED APPLICATION FOR OUTPATIENT MANAGEMENT IN RADIOLOGY DEPARTMENT

INVENTION, INNOVATION & DESIGN EXPOSITION 2022 (IIDEX)

2022 KEBANGSAAN GOLD

AWARDS/RECOGNITION

44. E-WARD MANAGEMENT SYSTEM

INVENTION, INNOVATION & DESIGN EXPOSITION 2022 (IIDEX)

2022 KEBANGSAAN SILVER

45. 3D HALOGRAM FOR EARLY CHILDHOOD EDUCATION

INTERNATIONAL INNOVATION ARSVOT MALAYSIA (IAM 2021)

2021 ANTARABANGSA SILVER

46. 3D HALOGRAM FOR EARLY CHILDHOOD EDUCATION

MINGGU PENYELIDIKAN & INOVASI 2021 (MPI'21)

2021 KEBANGSAAN GOLD

47. AUTOMATED MINI GREEN HOUSE CONTROLLER WITH ARDUINO

MELAKA INTERNATIONAL INTELLECTUAL EXPOSITION (MIIIEx 2019)

2019 ANTARABANGSA BRONZE

48. AUTOMATED MINI GREENHOUSE CONTROLLER WITH ARDUINO

MELAKA INTERNATIONAL INTELLECTUAL EXPOSITION 2019

2019 ANTARABANGSA CERTIFICATE OF APPRECIATION