



TS. DR. HATIKA BINTI KACO

PENSYARAH UNIVERSITI DS13

CONTACT

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E-mail:
hatikakaco@usim.edu.my

Faculty: Kolej Permata
Insan

SUPERVISION

PhD - Completed: 0, Ongoing: 0

Master - Completed: 0,
Ongoing: 0

AREAS OF EXPERTISE

Polymer-based 3d Printing Materials

Material Properties

Cellulosic And Fibre Technology (including Nano Cellulosic Materials)

ACADEMIC QUALIFICATION

PhD in Materials Science (2015)

Bachelor in Materials Science (2011)

RESEARCH

1. DEVELOPMENT OF A TECHNOLOGY - AND GAMIFICATION- INTEGRATED INNOVATION FOR THE ADDITIONAL MATHEMATICS SUBJECT

2026 GERAN PENYELIDIKAN PUSAT TANGGUNGJAWAB (PTJ) ON GOING
CO-RESEARCHER

2. INVESTIGATING THE DE-AND-RE-POLYMERIZATION ON CHAIN EXTENSION OF RECYCLED PET FOR HIGH PERFORMANCE 3D PRINTING MATERIAL

2024 GERAN KPT ON GOING MAIN RESEARCHER

3. GIFT TO GIVE: EXPLORING GIFTED STUDENTS AS TRENDSETTERS TO INTENSIFY STEM LEARNING THROUGH ADDITIVE MANUFACTURING TECHNOLOGY

2024 GERAN PENYELIDIKAN PUSAT TANGGUNGJAWAB (PTJ) ON GOING
MAIN RESEARCHER

4. HALALTIFY DNA KIT

2024 GERAN PENYELIDIKAN PUSAT TANGGUNGJAWAB (PTJ) ON GOING
CO-RESEARCHER

5. GO GREEN: SERVICE LEARNING VIA LAB IN A BOX

2023 GERAN PENYELIDIKAN PENTADBIR ON GOING CO-RESEARCHER

RESEARCH

6. PEMBANGUNAN MODEL KURIKULUM PENDIDIKAN PINTAR BERBAKAT INTEGRASI ILMU NAQLI AQLI (IGED)

2021 GERAN PENYELIDIKAN KHAS ON GOING CO-RESEARCHER

7. LOW COST 3D PRINTED HONEYCOMB-TERMINALIA CATAPPA FRUIT SHELLS COMPOSITES AS AN ABSORBING MATERIALS IN REDUCING ELECTROMAGNETIC INTERFERENCE POLLUTION

2020 GERAN PENYELIDIKAN USIM RACER COMPLETED CO-RESEARCHER

8. ELECTROMAGNETIC WAVE ABSORPTION MECHANISM OF HYBRID NANO-COMPOSITE-3D

2020 GERAN KPT COMPLETED CO-RESEARCHER

9. TOUCH AND MEMORIZE: INAUGURATION OF ROSARY-LIKE 3D PRINTED BRAILLE QURAN FOR VISUALLY IMPAIRED CHILDREN

2019 GERAN PENYELIDIKAN USIM COMPLETED MAIN RESEARCHER

10. USIMAKERS (INDUSTRY4WRD - INDUSTRY@UNIVERSITY)

2019 PROJEK REVOLUSI INDUSTRI 4.0 COMPLETED CO-RESEARCHER

11. USING AL-QURAN AND GAME KIT FOR ENTHUSIASTIC AND INTERACTIVE LEARNING IN ADDITIONAL MATHEMATICS CLASSROOM

2018 GERAN PENYELIDIKAN HEADSTART PROGRAM COMPLETED CO-RESEARCHER

12. ADOPTING GAMIFICATION IN DELIVERING CRYPTOGRAPHY CONCEPT & IMAGING A TOUCHABLE 3D HOLOGRAPHIC DISPLAY FOR AUGMENTED REALITY: A PRACTICAL APPROACH FOR INTERACTIVE LEARNING

2018 GERAN PENYELIDIKAN HEADSTART PROGRAM COMPLETED CO-RESEARCHER

PUBLICATION

1. STUDY OF THE STRUCTURAL PROPERTY AND BIODEGRADATION RELATIONSHIP OF REGENERATED CELLULOSE NANOFIBRE/GLYCEROL LAMINATED FILMS INCORPORATING RECYCLED PLA WASTE

SCIENTIFIC RESEARCH JOURNAL

2026 JOURNAL OTHER DATABASE CORRESPONDING AUTHOR

2. PHYSICOCHEMICAL PROPERTIES OF REFORMING THE RECYCLED BIOBASED POLYLACTIC ACID (PLA) FILAMENT INTO FILM-LIKED SHAPE

AIP CONFERENCE PROCEEDINGS

2025 JOURNAL SCOPUS CORRESPONDING AUTHOR

3. ELECTROMAGNETIC WAVE ABSORPTION PERFORMANCE OF Ni_{0.7}Zn_{0.3}Fe₂O₄/ZEOLITE/ CNT-EPOXY POLYMER MATRIX AT DIFFERENT THICKNESS

JOURNAL OF ADVANCED RESEARCH IN MICRO AND NANO ENGINEERING

2025 JOURNAL OTHER DATABASE MAIN AUTHOR

4. EMPOWERING HALAL COMPLIANCE THROUGH DNA ANALYSIS AND EDUCATION

6TH INTERNATIONAL CONFERENCE & INNOVATION 2025 (IJURECON 2025)

2025 PROCEEDING NON-INDEX CO-AUTHOR

5. INTELLIBIN 1.0: A PROTOTYPE OF AN AUTOMATED SMART RECYCLING BIN FOR SUSTAINABLE WASTE MANAGEMENT

6TH INTERNATIONAL CONFERENCE & INNOVATION 2025 (IJURECON 2025)

2025 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

6. PROCEEDINGS BOOK ICIEST 2025

2025 BOOK

7. PENTAKSIRAN PENDIDIKAN PINTAR DAN BERBAKAT INTEGRASI NAQLI DAN AQLI (IGED)

INTERNATIONAL JOURNAL OF EDUCATION, PSYCHOLOGY AND COUNSELING

2024 JOURNAL MYCITE CO-AUTHOR

8. MATERIALS? PROPERTIES OF LIGHTWEIGHT SPIRAL HYBRID CNT/EPOXY COMPOSITES ENHANCED REFLECTION LOSS

JOURNAL OF ADVANCED RESEARCH IN APPLIED MECHANICS

2024 JOURNAL SCOPUS CO-AUTHOR

9. INTENSIFY BIODEGRADATION PROCESS OF POLYLACTIC ACID (PLA) WASTE GENERATED FROM 3D PRINTING ACTIVITIES

MATERIALS SCIENCE FORUM

2024 JOURNAL ERA CORRESPONDING AUTHOR

10. SYNTHESIZED HYBRID CNT POLYMER COMPOSITE IN REDUCING EMI POLLUTION AT GIGAHERTZ FREQUENCY RANGE

SEMARAK INTERNATIONAL JOURNAL OF NANOTECHNOLOGY

2024 JOURNAL MYCITE CO-AUTHOR

11. A CASE STUDY: THE SECONDARY STUDENTS OVERALL SATISFACTION ON ONLINE LEARNING

INDONESIAN JOURNAL OF INFORMATION SYSTEMS (IJIS)

2024 JOURNAL OTHER DATABASE CO-AUTHOR

12. NANOCELLULOSE-BASED COMPOSITES FOR 3D PRINTED STIMULI-RESPONSIVE SWELLING HYDROGEL

INDUSTRIAL CROPS AND PRODUCTS

2024 JOURNAL ERA CO-AUTHOR

13. CRAFTING MATHEMATICAL MINDS BY ENGAGING BRAILLE-TANGIBLE 3IN1 3D PRINTED GEOBOARDS MODULE FOR VISUALLY IMPAIRED CHILDREN

SEMARAK INTERNATIONAL JOURNAL OF FUNDAMENTAL AND APPLIED MATHEMATICS

2024 JOURNAL OTHER DATABASE CORRESPONDING AUTHOR

PUBLICATION

14. INTEGRATING SENSORY-BASED ACTIVITY MODULES TO ENHANCE TACTILE SENSITIVITY IN BRAILLE LEARNERS: A COMPARATIVE STUDY

ESTEEM JOURNAL OF SOCIAL SCIENCES AND HUMANITIES

2024 JOURNAL OTHER DATABASE CORRESPONDING AUTHOR

15. OIL/WATER SEPARATION STUDY OF SYNTHESIZED CELLULOSE AEROGEL

5TH INSAN JUNIOR RESEARCHERS INTERNATIONAL CONFERENCE & INNOVATION 2024

2024 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

16. SUSTAINACROP: CULTIVATING PRECISION THROUGH AGRICULTURE

APS PROCEEDINGS VOLUME 17 |

2024 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

17. INTERACTIVE LEARNING EXPERIENCE THROUGH SULAM PROJECT BY INTEGRATING SUSTAINABLE ENVIRONMENT ACTIVITIES WITH INAQ

INTERNATIONAL SEMINAR ON ISLAMIC AND SCIENCE

2024 PROCEEDING NON-INDEX CO-AUTHOR

18. SULAM NATURE APPRECIATION MODULE: SCIENCE AND THE QURAN IN HARMONY

INTERNATIONAL SEMINAR ON ISLAMIC AND SCIENCE

2024 PROCEEDING NON-INDEX MAIN AUTHOR

19. BRIDGING SCIENCE AND HALAL COMPLIANCE: DNA ANALYSIS KITS CONCEPT FOR EFFECTIVE AND EDUCATIONAL AUTHENTICATION

IJURECON 2024

2024 PROCEEDING OTHER DATABASE CORRESPONDING AUTHOR

20. 3D PRINTING ACTIVITY FOR YOUNG INNOVATORS

2024 BOOK EDITOR

21. CHAPTER 1: ICE BREAKING: PERSONAL TIC TAC TOE

3D PRINTING ACTIVITY FOR YOUNG INNOVATORS: DESIGN IT! CREATE IT!INNOVATE IT!

2024 CHAPTER IN BOOK MAIN AUTHOR

22. CHAPTER 3: UNLEASHING CREATIVITY: CRAFTING AN EDUCATIONAL TOOL THROUGH INNOVATION

3D PRINTING ACTIVITY FOR YOUNG INNOVATORS: DESIGN IT! CREATE IT!INNOVATE IT!

2024 CHAPTER IN BOOK MAIN AUTHOR

23. INNOVATION UNVEILED: PRESENTING MY INVENTIVE MODEL IN THE PROJECT REPORT

3D PRINTING ACTIVITY FOR YOUNG INNOVATORS: DESIGN IT! CREATE IT!INNOVATE IT!

2024 CHAPTER IN BOOK MAIN AUTHOR

24. 3D PRINTED FUNCTIONALIZED NANOCELLULOSE AS AN ADSORBENT IN BATCH AND FIXED-BED SYSTEMS

POLYMERS

2023 JOURNAL ERA CO-AUTHOR

25. NANOCELLULOSE-BASED BIOMATERIAL INK HYDROGEL FOR UPTAKE/RELEASE OF BOVINE SERUM ALBUMIN

POLYMERS

2023 JOURNAL ERA CO-AUTHOR

26. ENHANCING FINGER SENSITIVITY: SENSORY-BASED ACTIVITY MODULE (SENSORY-BAM)

MALAYSIA JOURNAL OF INVENTION AND INNOVATION

2023 JOURNAL OTHER DATABASE CORRESPONDING AUTHOR

PUBLICATION

27. IMPAK PENTAKSIRAN PENDIDIKAN PINTAR DAN BERBAKAT INTEGRASI NAQLI DAN AQLI (IGED)

INNOVATIVE TEACHING AND LEARNING JOURNAL (ITLJ)

2023 JOURNAL OTHER DATABASE CORRESPONDING AUTHOR

28. UNDERSTANDING ENGLISH VOCABULARY AMONG PERMATA INSAN COLLEGE STUDENTS

4TH INSAN JUNIOR RESEARCHERS INTERNATIONAL CONFERENCE 2023 (IJURECON 2023)

2023 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

29. MATERIALS? PROPERTIES OF LIGHTWEIGHT SPIRAL HYBRID CNT/EPOXY COMPOSITES ENHANCED REFLECTION LOSS

2ND WORLD ENGINEERING, SCIENCE AND TECHNOLOGY CONFERENCE 2023

2023 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

30. GAME-BASED LEARNING: THE EDUCATIONAL BOARD GAME TREND

INSAN JUNIOR RESEARCHER INTERNATIONAL CONFERENCE

2023 PROCEEDING NON-INDEX CO-AUTHOR

31. THE ESSENCE OF PRACTICING 3D PRINTED MODELS THROUGH GAME-BASED MODULE IN LEARNING BRAILLE QURAN CODE AMONG THE BEGINNERS

INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN PROGRESSIVE EDUCATION AND DEVELOPMENT

2022 JOURNAL ERA CORRESPONDING AUTHOR

32. REPROCESSING OF 3D PRINTING FILAMENT'S FRAGMENT BY HYDROLYSIS AND RECYCLING INTO THE FORMATION OF BIOPLASTIC

MATERIALS TODAY: PROCEEDINGS

2022 JOURNAL SCOPUS AND ERA CORRESPONDING AUTHOR

33. ELECTROMAGNETIC WAVE REDUCTION OF MULTIWALLED CARBON NANOTUBES (MWCNT) MIXED NANOMETER COFE₂O₄ AT HIGHER FREQUENCY RANGE

MATERIALS TODAY: PROCEEDINGS

2022 JOURNAL SCOPUS AND ERA CO-AUTHOR

34. ELECTROMAGNETIC WAVE ABSORPTION PERFORMANCE OF CARBON NANOCOILS BY USING MIXED FERRITES AS CATALYST

ERZINCAN UNIVERSITY JOURNAL OF SCIENCE AND TECHNOLOGY

2022 JOURNAL OTHER DATABASE CO-AUTHOR

35. MUSLIM GIFTED AND TALENTED CURRICULUM: A DESIGN OF FRAMEWORK

INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN PROGRESSIVE EDUCATION AND DEVELOPMENT

2022 JOURNAL ERA CO-AUTHOR

36. ONLINE GAME: CURRENT TREND AMONG MALAYSIAN SECONDARY SCHOOL'S STUDENT

INTERNATIONAL JOURNAL OF EDUCATION, PSYCHOLOGY AND COUNSELING

2022 JOURNAL MYCITE CO-AUTHOR

37. RECENT ADVANCES IN 3D BIOPRINTING: A REVIEW OF CELLULOSE-BASED BIOMATERIALS INK

POLYMERS

2022 JOURNAL ERA MAIN AUTHOR / CONTACT PERSON IN USIM

38. VISUAL AND KINESTHETICS LEARNING ADOPTING STUDENT AS TRENDSETTER VIA 3D PRINTING KITS TO ENHANCE UNDERSTANDING OF PHYSICS THEOREM

ASEAN JOURNAL OF ENGINEERING AND TECHNOLOGY

2022 JOURNAL OTHER DATABASE CORRESPONDING AUTHOR

39. GAME-BASED LEARNING APPROACH IN UNDERSTANDING PHYSICS CONCEPT VIA MINECRAFT

INTERNATIONAL COMPETITION AND EXHIBITION ON COMPUTING INNOVATION (ICE-CINNO) 2022

2022 PROCEEDING NON-INDEX CO-AUTHOR

PUBLICATION

40. STUDY ON PYTHON AS A TOOL IN EDUCATION OF CRYPTOGRAPHY: AWARENESS AMONG SECONDARY SCHOOL STUDENTS

2ND INSAN JUNIOR RESEARCHERS INTERNATIONAL CONFERENCE 2021

2022 PROCEEDING NON-INDEX CO-AUTHOR

41. ELECTROMAGNETIC WAVE REDUCTION OF MULTIWALLED CARBON NANOTUBES MIXED NANOMETER COFE2O4 AT HIGHER FREQUENCY RANGE

THE INTERNATIONAL SYMPOSIUM ON POLYMERIC MATERIALS 2022

2022 PROCEEDING NON-INDEX CO-AUTHOR

42. SYNTHESIS OF REGENERATED CELLULOSE NANOFIBER/GLYCEROL TO PRODUCE BIOPLASTIC COMPOSITE

2ND INSAN JUNIOR RESEARCHERS INTERNATIONAL CONFERENCE 2021

2022 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

43. A CONCEPTUALIZATION OF TACTILE CATHODE RAY OSCILLOSCOPE IN LEARNING ELECTRONICS VIA 3D PRINTING APPROACH

12TH MALAYSIAN TECHNICAL UNIVERSITIES CONFERENCE ON ENGINEERING AND TECHNOLOGY (MUCET) 2021

2022 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

44. FIZIK: HATIKA KACO

MODUL PENGAJARAN DAN PEMBELAJARAN SERTA PENTAKSIRAN BERSEPADU KURIKULUM PENDIDIKAN PINTAR BERBAKAT INTEGRASI AQLI DAN NAQLI (IGED), ASAS 2

2022 CHAPTER IN BOOK MAIN AUTHOR

45. ELECTROCHEMICAL CHARACTERIZATION OF GRAPHITE-ZERO-VALENT IRON FOR 3-MONOCHLOROPROPANE-1,2-DIOL (3-MCPD) DETECTION

MATERIALS SCIENCE FORUM

2021 JOURNAL ERA MAIN AUTHOR / CONTACT PERSON IN USIM

46. HOMOGENEOUS DISTRIBUTION OF LIGNIN/GRAPHENE FILLERS WITH ENHANCED INTERLAYER ADHESION FOR 3D PRINTING FILAMENT

POLYMER COMPOSITES

2021 JOURNAL ERA MAIN AUTHOR / CONTACT PERSON IN USIM

47. AN EVALUATION OF STUDENT'S PERCEPTION TOWARDS LEARNING PHYSICS AT LOWER SECONDARY SCHOOL

JURNAL PENDIDIKAN SAINS DAN MATEMATIK MALAYSIA

2021 JOURNAL MYCITE CORRESPONDING AUTHOR

48. INTACT FIBRILLATED 3D-PRINTED CELLULOSE MACROFIBRILS/CACO3 FOR CONTROLLED DRUG DELIVERY

POLYMERS

2021 JOURNAL ERA MAIN AUTHOR / CONTACT PERSON IN USIM

49. 3D PRINTED POLYURETHANE REINFORCED GRAPHENE NANOPATELETS

MATERIALS SCIENCE FORUM

2021 JOURNAL ERA MAIN AUTHOR / CONTACT PERSON IN USIM

50. WELL-DISPERSED CELLULOSE-GRAPHENE IN 4D PRINTING BIOPOLYMER

MATERIALS LETTERS

2021 JOURNAL ERA MAIN AUTHOR / CONTACT PERSON IN USIM

51. 3D PRINTED BRAILLE TILES AND TAPE FOR BEGINNERS IN LEARNING QURAN BRAILLE

KONGRES DAN PERTANDINGAN INOVASI DALAM PENGAJARAN DAN PEMBELAJARAN (KNOVASI) 2021

2021 PROCEEDING NON-INDEX MAIN AUTHOR

52. INTEGRATED ASSESSMENT OF BAHASA MELAYU, MATHEMATICS, AND VISUAL ART SUBJECTS FOR SCHOOL STUDENTS

INTERNATIONAL VIRTUAL CONFERENCE ON LIBERAL STUDIES 2021

2021 PROCEEDING NON-INDEX CO-AUTHOR

PUBLICATION

53. TREND PERMAINAN DALAM TALIAN DI KALANGAN MURID SEKOLAH MENENGAH DI MALAYSIA

INTERNATIONAL VIRTUAL CONFERENCE ON EDUCATION, SOCIAL SCIENCES AND TECHNOLOGY 2021 (IVEST2021)

2021 PROCEEDING NON-INDEX CO-AUTHOR

54. REGENERATED KENAF CORE CELLULOSE HYDROGELS AND FILMS PREPARED VIA PRE-COOLED METHOD

I-SPIKE 2021 INTERNATIONAL EXHIBITION & SYMPOSIUM E-PROCEEDINGS

2021 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

55. STUDY ON TWO-POINT DISCRIMINATION TACTILE SENSOR FOR RECITING QURAN BRAILLE DOTS

7TH INTERNATIONAL CONFERENCE ON QURAN AS FOUNDATION OF CIVILIZATION (SWAT) 2021

2021 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

56. DESIGNING TANGIBLE 3D PRINTED CATHODE RAY OSCILLOSCOPE IN LEARNING ELECTRONIC FOR PHYSICS IN SECONDARY SCHOOL

1ST INSAN JUNIOR RESEARCHER INTERNATIONAL CONFERENCE 2020

2021 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

57. DEPOLYMERIZATION OF POLYETHYLENE TEREPHTHALATE (PET) FROM 3D PRINTED WASTE VIA THERMAL AND ALKALINE HYDROLYSIS

1ST INSAN JUNIOR RESEARCHER INTERNATIONAL CONFERENCE 2020

2021 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

58. ENCAPSULATION OF WINGED TERMITES IN CELLULOSE NANOFIBRE FOR THE FABRICATION OF CELLULOSE BIOPLASTIC

INTERNATIONAL EXHIBITION & SYMPOSIUM ON PRODUCTIVITY, INNOVATION, KNOWLEDGE, EDUCATION, AND DESIGN (I-SPIKE 2021)

2021 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

59. ACTIVE LEARNING OF EDUCATION 4.0: STUDENTS AS OWNERS OF LEARNING

2021 BOOK EDITOR

60. USING NLP TECHNIQUES TO IDENTIFY STUDENTS' LEARNING STYLE BASED ON VAK LEARNING METHOD

ACTIVE LEARNING IN EDUCATION 4.0: STUDENTS AS OWNERS OF LEARNINGS

2021 CHAPTER IN BOOK CO-AUTHOR

61. FUN LEARNING ACTIVITY WITH 3D PRINTING KIT AS ATTRACTIVE APPROACHES FOR EMPHASIZING PHYSICS INTEREST

ACTIVE LEARNING IN EDUCATION 4.0: STUDENTS AS OWNERS OF LEARNINGS

2021 CHAPTER IN BOOK MAIN AUTHOR

62. OIL WATER SEPARATION: INAUGURATION OF CELLULOSE AND CHEMICALLY MODIFIED CELLULOSE-RGO VIA GRAPHENE OXIDE FUNCTIONALIZATION

TEST ENGINEERING AND MANAGEMENT

2020 JOURNAL SCOPUS MAIN AUTHOR

63. INVESTIGATION WITH GIFTED STUDENTS IN LEARNING PHYSICS CONCEPT BASED ON COGNITIVE STRUCTURE

JOURNAL OF COMPUTATIONAL AND THEORETICAL NANOSCIENCE

2020 JOURNAL SCOPUS CO-AUTHOR

64. EXTENDING CELLULOSE-BASED POLYMERS APPLICATION IN ADDITIVE MANUFACTURING TECHNOLOGY: A REVIEW OF RECENT APPROACHES

POLYMERS

2020 JOURNAL ERA CO-AUTHOR

65. 3D PRINTED LAMINATED CaCO₃-NANOCELLULOSE FILMS AS CONTROLLED-RELEASE 5-FLUOROURACIL

POLYMERS

2020 JOURNAL ERA CO-AUTHOR

PUBLICATION

66. LOW COST 3D PRINTING-TERMINALIA CATAPPA FRUIT SHELLS COMPOSITES AS POTENTIAL ELECTROMAGNETIC ABSORBING MATERIALS

INTERNATIONAL INNOVATION COMPETITION (INNOCOM) 2020

2020 PROCEEDING NON-INDEX CO-AUTHOR

67. TELESCOPIC SYNTHESIS OF CELLULOSE NANOFIBRILS WITH A STABLE DISPERSION OF FE(0) NANOPARTICLES FOR SYNERGISTIC REMOVAL OF 5-FLUOROURACIL

SCIENTIFIC REPORTS

2019 JOURNAL ERA CO-AUTHOR

68. EVALUATION OF THE COMPATIBILITY OF ORGANOSOLV LIGNIN-GRAPHENE NANOPATELETS WITH PHOTO-CURABLE POLYURETHANE IN STEREO LITHOGRAPHY 3D PRINTING

POLYMERS

2019 JOURNAL ERA CO-AUTHOR

69. SUPERABSORBENT HYDROGEL FROM OIL PALM EMPTY FRUIT BUNCH CELLULOSE AND SODIUM CARBOXYMETHYLCELLULOSE

INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES

2019 JOURNAL ERA CO-AUTHOR

70. DETOXIFICATION OF LIGNOCELLULOSIC HYDROLYSATES BY INSITU FORMATION OF FE(0) NANOPARTICLES ON ACTIVATED CARBON

BIORESOURCES

2019 JOURNAL ERA CO-AUTHOR

71. 3D PRINTING OF UV-CURABLE POLYURETHANE INCORPORATED WITH SURFACE-GRAFTED NANOCELLULOSE

NANOMATERIALS

2019 JOURNAL ISI CO-AUTHOR

72. USING GAME KIT FOR ETHUSIASTIC AND INTERACTIVE LEARNING IN ADDITIONAL MATHEMATICS CLASSROOM

JOURNAL OF EDUCATION AND SOCIAL SCIENCES

2019 JOURNAL OTHER DATABASE CO-AUTHOR

73. A CASE STUDY IN IDENTIFYING THE LEVEL OF THINKING ABILITY IN PHYSICS SUBJECT AMONG SECONDARY SCHOOL STUDENTS

3RD ASIA INTERNATIONAL MULTIDISCIPLINARY CONFERENCE (AIMC 2019)

2019 PROCEEDING NON-INDEX CO-AUTHOR

74. DEGRADATION OF CELLULOSE MOLECULAR WEIGHT: EFFECT OF ACID HYDROLYSIS TIME ON CELLULOSE HYDROGEL PROPERTIES

INNOVATION FOR SUSTAINABILITY AND GREEN TECHNOLOGY: DEGRADATION OF INANIMATE FORMS

2019 CHAPTER IN BOOK MAIN AUTHOR

75. RECYCLING AND UTILISATION OF MILL SCALE TO PRODUCE CURRENT SMART ELECTROMAGNETIC ABSORBING MATERIAL

INNOVATION FOR SUSTAINABILITY AND GREEN TECHNOLOGY: DEGRADATION OF INANIMATE FORMS

2019 CHAPTER IN BOOK CO-AUTHOR

76. ENHANCED CORROSION INHIBITION USING PURIFIED TANNIN IN HCL MEDIUM

MALAYSIAN JOURNAL OF ANALYTICAL SCIENCES

2018 JOURNAL SCOPUS MAIN AUTHOR

77. PHYSICAL PROPERTIES OF REGENERATED KENAF CELLULOSE MEMBRANE: USING H2SO4 AS COAGULANT

CELLULOSE CHEMISTRY AND TECHNOLOGY

2018 JOURNAL WOS CO-AUTHOR

78. EFFECT OF GRAPHENE OXIDE ON THERMAL STABILITY OF AEROGEL BIONANOCOMPOSITE FROM CELLULOSE-BASED WASTE BIOMASS

CELLULOSE

2018 JOURNAL WOS MAIN AUTHOR

PUBLICATION

79. FACTORS AFFECTING CELLULOSE DISSOLUTION OF OIL PALM EMPTY FRUIT BUNCH AND KENAF PULP IN NAOH/UREA SOLVENT

SAINS MALAYSIANA

2018 JOURNAL WOS CO-AUTHOR

80. OLEOPHILICITY AND OIL-WATER SEPARATION BY REDUCED GRAPHENE OXIDE GRAFTED OIL PALM EMPTY FRUIT BUNCH FIBRES

SAINS MALAYSIANA

2018 JOURNAL WOS CO-AUTHOR

81. PHYSICO-MECHANICAL, CHEMICAL COMPOSITION, THERMAL DEGRADATION AND CRYSTALLINITY OF OIL PALM EMPTY FRUIT BUNCH, KENAF AND POLYPROPYLENE FIBRES: A COMPARATIVES STUDY

SAINS MALAYSIANA

2018 JOURNAL WOS CO-AUTHOR

82. REGENERATED KENAF CORE CELLULOSE PRODUCTS PREPARED VIA PRE-COOLED METHOD

THE 1ST INTERNATIONAL CONFERENCE OFAPPLIED BIOLOGY, CHEMISTRY & SCIENCE (ICABCS 2018)

2018 PROCEEDING NON-INDEX MAIN AUTHOR

83. PENGENALAN

POTENSI PRODUK HIJAU TERMAJU DARIPADA SUMBER BIOJISIM PERTANIAN

2018 CHAPTER IN BOOK MAIN AUTHOR

84. LIGNOSELULOSA

POTENSI PRODUK HIJAU TERMAJU DARIPADA SUMBER BIOJISIM PERTANIAN

2018 CHAPTER IN BOOK MAIN AUTHOR

85. SUMBER LIGNOSELULOSA DARIPADA HASIL INDUSTRI PERTANIAN

POTENSI PRODUK HIJAU TERMAJU DARIPADA SUMBER BIOJISIM PERTANIAN

2018 CHAPTER IN BOOK MAIN AUTHOR

86. POTENSI BAHARU PRODUK KONVENSIONAL DARIPADA BIOJISIM LIGNOSELULOSA

POTENSI PRODUK HIJAU TERMAJU DARIPADA SUMBER BIOJISIM PERTANIAN

2018 CHAPTER IN BOOK MAIN AUTHOR

87. SELULOSA SEBAGAI SUMBER APLIKASI TERMAJU

POTENSI PRODUK HIJAU TERMAJU DARIPADA SUMBER BIOJISIM PERTANIAN

2018 CHAPTER IN BOOK MAIN AUTHOR

88. PENUTUP

POTENSI PRODUK HIJAU TERMAJU DARIPADA SUMBER BIOJISIM PERTANIAN

2018 CHAPTER IN BOOK MAIN AUTHOR

89. CHEMICAL AND THERMAL STUDIES ON ESTERIFICATION OF EDTA WITH RAW CELLULOSE AND MERCERIZED CELLULOSE EFB

THE 2017 UKM FST POSTGRADUATE COLLOQUIUM

2017 PROCEEDING NON-INDEX CO-AUTHOR

90. PREPARATION OF CELLULOSE SOLUTION FROM OIL PALM EMPTY FRUIT BUNCH (EFB) PULP

ASIAN INTERNATIONAL CONFERENCE ON MATERIALS, MINERALS AND POLYMER

2012 PROCEEDING NON-INDEX MAIN AUTHOR

91. PENYEDIAAN LARUTAN SELULOSA DARIPADA PULPA SERABUT TANDAN KELAPA SAWIT (STKS)

KOLOKIUUM SISWAZAH KE-12, FAKULTI SAINS DAN TEKNOLOGI, UKM

2012 PROCEEDING NON-INDEX MAIN AUTHOR

PUBLICATION

92. STUDIES OF CELLULOSE SOLUTION PRODUCE FROM PALM OIL EMPTY FRUIT BUNCH PULP AND CELLULOSE FROM FILTER PAPER

ASIAN INTERNATIONAL CONFERENCE ON MATERIALS, MINERALS AND POLYMER

2012

PROCEEDING

NON-INDEX

CO-AUTHOR

CONSULTATION

1. KAJIAN BANCIAN INDUSTRI PERKAYUAN NEGARA

MALAYSIAN TIMBER INDUSTRY BOARD (MTIB)

2017

NATIONAL

AWARDS/RECOGNITION

1. JOHAN ROBOMISSION PRO (LOWER SECONDARY)

2025 STATE

2. CONSOLATION ROBOMISSION BATTLE LOWER BORNEO INTERNATIONAL ROBOT TOURNAMENT 2025

2025 INTERNATIONAL

3. ANUGERAH AHLI AKADEMIK HARAPAN 2024

2025 UNIVERSITY

4. 2ND RUNNER-UP INNOXTECH CHALLENGE

2025 NATIONAL

5. WRITER OF THE MONTH (CO-AUTHOR) AUGUST 2025

2025 UNIVERSITY

6. WRITER OF THE MONTH (CO-AUTHOR) JULY 2025

2025 UNIVERSITY

7. WRITER OF THE MONTH (CORRESPONDING-AUTHOR) FEBRUARY 2025

2025 UNIVERSITY

8. WRITER OF THE MONTH (CORRESPONDING-AUTHOR) JUNE 2025

2025 UNIVERSITY

9. WRITER OF THE MONTH (BOOK-AUTHOR) NOVEMBER 2025

2025 UNIVERSITY

10. ACADEMIC ADVISOR

UNIVERSITI SAINS ISLAM MALAYSIA

2025 UNIVERSITY

11. ACADEMIC ADVISOR

UNIVERSITI SAINS ISLAM MALAYSIA

2025 UNIVERSITY

12. ACADEMIC ADVISOR

UNIVERSITI SAINS ISLAM MALAYSIA

2025 UNIVERSITY

13. ACADEMIC ADVISOR

YOUNG INVENTOR'S CHALLENGE

2025 NATIONAL

14. ACADEMIC ADVISOR

JABATAN PENDIDIKAN NEGERI SEMBILAN

2025 STATE

AWARDS/RECOGNITION

15. ACADEMIC ADVISOR

SASBADI HOLDINGS BERHAD

2025

STATE

16. ACADEMIC ADVISOR

SASBADI HOLDINGS BERHAD

2025

INTERNATIONAL

17. ACADEMIC ADVISOR

KOLEJ PERMATA INSAN

2025

UNIVERSITY

18. ACADEMIC ADVISOR

KOLEJ PERMATA INSAN

2025

UNIVERSITY

19. ACADEMIC ADVISOR

UNIVERSITI SULTAN AZLAN SHAH

2025

INTERNATIONAL

20. ACADEMIC ADVISOR

PUSAT PEMBANGUNAN KEMAHIRAN INSANIAH

2025

UNIVERSITY

21. ACADEMIC ADVISOR

PUSAT PEMBANGUNAN KEMAHIRAN INSANIAH

2025

UNIVERSITY

22. ACADEMIC ADVISOR

UNIVERSITI MALAYSIA PERLIS

2025

INTERNATIONAL

23. 3IN1 3D PRINTED GEOBOARD AND MATH BRAILLE PUZZLE

SCIENCE CASTLE ASIA 2025

2025

ANTARABANGSA

SILVER

24. BRAILLEBLOCKS3D: TACTILE PLAY IN EARLY MATH EDUCATION

SCIENCE CASTLE ASIA 2025

2025

ANTARABANGSA

BRONZE

25. PET2PRINT: A CLOSED-LOOP RECYCLING PROCESS FOR 3D PRINTING.

KUANTAN INTERNATIONAL INVENTION & INNOVATION CHALLENGE 2025

2025

ANTARABANGSA

GOLD

26. 3DBRAILLEMATH : INNOVATIVE BRAILLE LEARNING TOOLS FOR VISUALLY IMPAIRED CHILDREN

INNOVATION BANK CHALLENGE 2025

2025

ANTARABANGSA

GOLD

27. 3D BRAILLE MATH: TACTILE LEARNING IN MATHEMATICS

MALAYSIA INVENTION & INNOVATION EXPO 2025

2025

KEBANGSAAN

GOLD

28. HYDROPHOBIC CELLULOSE AEROGELS VIA SILANATION FOR EFFECTIVE OIL-WATER SEPARATION

MALAYSIA INVENTION & INNOVATION EXPO 2025

2025 KEBANGSAAN GOLD

AWARDS/RECOGNITION

29. REAL2REPLICA: 3D SCANNED ORGANS FOR NEXT GENERATION MEDICAL EDUCATION

MALAYSIA INVENTION & INNOVATION EXPO 2025

2025 KEBANGSAAN GOLD

30. 3D BRAILLE MATH: TACTILE LEARNING IN MATHEMATICS -SPECIAL NEEDS AWARD

MALAYSIA INVENTION & INNOVATION EXPO 2025

2025 KEBANGSAAN

31. 3D BRAILLE MATH: TACTILE LEARNING IN MATHEMATICS -TOP 5 AWARD

MALAYSIA INVENTION & INNOVATION EXPO 2025

2025 KEBANGSAAN

32. 3DBRAILLEMATH KIT: TACTILE LEARNING IN MATHEMATICS

World Innovation STEM Competition 2025

2025 ANTARABANGSA GOLD

33. ADVANCING HALAL VERIFICATION WITH SCIENTIFIC PRECISION

INSAN Junior Researchers International Conference (ijURECON 2025)

2025 ANTARABANGSA GOLD

34. KINETIC VISION: VISUALIZING PHYSICS THROUGH 3D PRINTED STEM KITS

World Innovation STEM Competition 2025

2025 ANTARABANGSA GOLD

35. EMPOWERING HALAL COMPLIANCE THROUGH DNA ANALYSIS AND EDUCATION

INSAN Junior Researchers International Conference (ijURECON 2025)

2025 ANTARABANGSA GOLD

36. UNNECESSARY ENERGY CONSUMPTION IN CLASSROOMS: FINDING SMART AND SUSTAINABLE SOLUTIONS

INSAN Junior Researchers International Conference (ijURECON 2025)

2025 ANTARABANGSA GOLD

37. UNNECESSARY ENERGY CONSUMPTION IN CLASSROOMS: FINDING SMART AND SUSTAINABLE SOLUTIONS - SPECIAL AWARD (BEST IDEA PITCH)

INSAN Junior Researchers International Conference (ijURECON 2025)

2025 ANTARABANGSA

38. FROM LAB TO CLASSROOM: DNA KIT INNOVATION FOR HALAL AWARENESS AND EDUCATION - SPECIAL AWARD (BEST INNOVATION AWARD)

INSAN Junior Researchers International Conference (ijURECON 2025)

2025 ANTARABANGSA

39. FROM LAB TO CLASSROOM: DNA KIT INNOVATION FOR HALAL AWARENESS AND EDUCATION

INSAN Junior Researchers International Conference (ijURECON 2025)

2025 ANTARABANGSA GOLD

40. REAL2REPLICA: MEDICAL EDUCATION THROUGH 3D PRINTING

INSAN Junior Researchers International Conference (ijURECON 2025)

2025 ANTARABANGSA SILVER

41. VALORIZATION OF POST-PRINTING PLA WASTE INTO BIOCOMPOSITE FILAMENT INCORPORATING CALCIUM CARBONATE

INSAN Junior Researchers International Conference (ijURECON 2025)

2025 ANTARABANGSA GOLD

42. VALORIZATION OF POST-PRINTING PLA WASTE INTO BIOCOMPOSITE FILAMENT INCORPORATING CALCIUM CARBONATE - SPECIAL AWARD (BEST POSTER DESIGN AWARD)

INSAN Junior Researchers International Conference (IJURECON 2025)

2025

ANTARABANGSA



AWARDS/RECOGNITION

43. INTELLIBIN 1.0: A PROTOTYPE OF AN AUTOMATED SMART RECYCLING BIN FOR SUSTAINABLE WASTE MANAGEMENT - SPECIAL AWARD (MOST PROMISING AWARD)

INSAN Junior Researchers International Conference (ijURECON 2025)

2025 ANTARABANGSA

44. INTELLIBIN 1.0: A PROTOTYPE OF AN AUTOMATED SMART RECYCLING BIN FOR SUSTAINABLE WASTE MANAGEMENT

INSAN Junior Researchers International Conference (ijURECON 2025)

2025 ANTARABANGSA SILVER

45. INTELLIBIN 2.0: SELF-ISOLATED RECYCLED BIN WITH AI IDENTIFICATION - SPECIAL AWARD (MOST ORIGINAL CONCEPT AWARD)

INSAN Junior Researchers International Conference (ijURECON 2025)

2025 ANTARABANGSA

46. INTELLIBIN 2.0: SELF-ISOLATED RECYCLED BIN WITH AI IDENTIFICATION

INSAN Junior Researchers International Conference (ijURECON 2025)

2025 ANTARABANGSA GOLD

47. FROM BOTTLE TO FUTURE: RECYCLE, REFORM, REINSPIRE (RE3D) - SPECIAL AWARD (BEST SOCIAL IMPACT AWARD)

INSAN Junior Researchers International Conference (ijURECON 2025)

2025 ANTARABANGSA

48. FROM BOTTLE TO FUTURE: RECYCLE, REFORM, REINSPIRE (RE3D)

INSAN Junior Researchers International Conference (ijURECON 2025)

2025 ANTARABANGSA GOLD

49. 3DBRAILLEMATH: TACTILE LEARNING IN MATHEMATICS (SPECIAL AWARD)

2nd INTERNATIONAL DEVELOPMENT, RESEARCH & INNOVATION EXHIBITION (iDRIVE'25)

2025 ANTARABANGSA

50. SYNTHESIS OF RECYCLED PLA/CACO3 COMPOSITE FOR 3D PRINTING FILAMENT PRODUCTION

INTERNATIONAL FUTURE INNOVATORS CHALLENGE 2025 (IFIC 2025)

2025 ANTARABANGSA BRONZE

51. PET2PRINT: A CLOSED-LOOP RECYCLING PROCESS FOR 3D PRINTING

SCIFUSION: FESTIVAL INOVASI & STEM KEBANGSAAN

2025 KEBANGSAAN BRONZE

52. 3DBRAILLEMATH: TACTILE LEARNING IN MATHEMATICS

2nd INTERNATIONAL DEVELOPMENT, RESEARCH & INNOVATION EXHIBITION (iDRIVE'25)

2025 ANTARABANGSA GOLD

53. PET2PRINT:A CLOSED-LOOP RECYCLING PROCESS FOR 3D PRINTING

2nd INTERNATIONAL DEVELOPMENT, RESEARCH & INNOVATION EXHIBITION (iDRIVE'25)

2025 ANTARABANGSA GOLD

54. 3D BRAILLE MATH: TACTILE LEARNING IN MATHEMATICS

VIRTUAL INNOVATION COMPETITION 2025

2025 ANTARABANGSA SILVER

55. GREENCELL: SILANE-MODIFIED CELLULOSE FOR SUSTAINABLE SEPARATION

VIRTUAL INNOVATION COMPETITION 2025

2025 ANTARABANGSA GOLD

56. SELF-ISOLATED RECYCLED BIN (GRAND DIAMOND AWARD)

International Research and Information Science Expo 2025 (IRISE2025)

2025

ANTARABANGSA



AWARDS/RECOGNITION

57. INTELLIBIN: SELF-ISOLATED RECYCLED BIN

International Research and Information Science Expo 2025 (IRISE2025)

2025 ANTARABANGSA GOLD

58. SELF-ISOLATED RECYCLED BIN (TOP 5 AWARD)

International Research and Information Science Expo 2025 (IRISE2025)

2025 ANTARABANGSA

59. MULTIPLE RECYLING OF PET BOTTLES INTO RPET FILAMENT FOR SUSTAINABLE 3D PRINTING MATERIALS

SCIENCE CASTLE ASIA 2025

2025 ANTARABANGSA SILVER

60. INTELLIBIN 2.0: SELF-ISOLATED RECYCLED BIN WITH AI IDENTIFICATION

SCIENCE CASTLE ASIA 2025

2025 ANTARABANGSA SILVER

61. ANUGERAH PENILAI BERKUALITI OGOS 2024

2024 UNIVERSITY

62. ANUGERAH PENILAI BERKUALITI NOVEMBER 2024

2024 UNIVERSITY

63. ANUGERAH PENULIS JURNAL CEMERLANG APRIL 2024

2024 UNIVERSITY

64. ANUGERAH PENULIS JURNAL CEMERLANG OGOS 2024

2024 UNIVERSITY

65. ANUGERAH PENULIS JURNAL CEMERLANG OKTOBER 2024

2024 UNIVERSITY

66. PERTANDINGAN ANYAMAN KETUPAT

2024 UNIVERSITY

67. ANUGERAH INOVASI TERBAIK MAC 2024

2024 UNIVERSITY

68. ANUGERAH INOVASI TERBAIK MEI 2024

2024 UNIVERSITY

69. ANUGERAH INOVASI TERBAIK JUN 2024

2024 UNIVERSITY

70. ANUGERAH INOVASI TERBAIK APRIL 2024

2024 UNIVERSITY

AWARDS/RECOGNITION

71. ANUGERAH INOVASI TERBAIK SEPTEMBER 2024

2024 UNIVERSITY

72. ANUGERAH INOVASI TERBAIK OKTOBER 2024

2024 UNIVERSITY

73. ANUGERAH JURI TERBAIK OKTOBER 2024

2024 UNIVERSITY

74. ANUGERAH PENILAI BERKUALITI JANUARI 2024

2024 UNIVERSITY

75. ANUGERAH PENILAI BERKUALITI MAC 2024

2024 UNIVERSITY

76. ANUGERAH PENYELIDIK CEMERLANG MAC 2024

2024 UNIVERSITY

77. ANUGERAH PENULIS JURNAL CEMERLANG JUN 2024

2024 UNIVERSITY

78. ANUGERAH PENULIS JURNAL CEMERLANG FEBRUARI 2024

2024 UNIVERSITY

79. ANUGERAH PENILAI BERKUALITI DISEMBER 2024

2024 UNIVERSITY

80. ANUGERAH PENILAI BERKUALITI JUNE 2024

2024 UNIVERSITY

81. ANUGERAH PENILAI BERKUALITI JULAI 2024

2024 UNIVERSITY

82. ANUGERAH PENULIS JURNAL TERBAIK

2024 UNIVERSITY

83. ACADEMIC ADVISOR

MENTOR FOR PUTRAJAYA INTERNATIONAL ROBOTICS CHALLENGE 2.0 2024

2024 INTERNATIONAL

84. ACADEMIC ADVISOR

GURU PEMBIMBING INNOVATORS OF TOMORROW (BIDANG MATEMATIK), KARNIVAL STEM PERINGKAT NEGERI SEMBILAN

2024 STATE

AWARDS/RECOGNITION

85. ACADEMIC ADVISOR

GURU PEMBIMBING INNOVATORS OF TOMORROW (BIDANG MATEMATIK), KARNIVAL STEM PERINGKAT NEGERI SEMBILAN

2024 STATE

86. ACADEMIC ADVISOR

GURU PEMBIMBING ROBOT BATTLE CHALLENGE, KARNIVAL STEM PERINGKAT NEGERI SEMBILAN

2024 STATE

87. ACADEMIC ADVISOR

PETROSAINS SDN. BHD

2024 STATE

88. ACADEMIC ADVISOR

ADVISOR FOR SCIENCE CASTLE IN ASIA (SCIENCES)

2024 INTERNATIONAL

89. ACADEMIC ADVISOR

KOLEJ PERMATA INSAN

2024 UNIVERSITY

90. ACADEMIC ADVISOR

KOLEJ PERMATA INSAN

2024 UNIVERSITY

91. ACADEMIC ADVISOR

KOLEJ PERMATA INSAN

2024 UNIVERSITY

92. ACADEMIC ADVISOR

PETROSAINS SDN. BHD.

2024 NATIONAL

93. ACADEMIC ADVISOR

PETROSAINS SDN. BHD

2024 NATIONAL

94. ACADEMIC ADVISOR

AKADEMI SAINS MALAYSIA

2024 STATE

95. ACADEMIC ADVISOR

PETROSAINS SDN. BHD

2024 STATE

96. ACADEMIC ADVISOR

ROBOXPERIENCE CARNIVAL 2024

2024 NATIONAL

97. ACADEMIC ADVISOR

YOUTH TECH ASIA CHALLENGE

2024 INTERNATIONAL

98. ACADEMIC ADVISOR

KEMENTERIAN SAINS, TEKNOLOGI DAN INOVASI

2024

NATIONAL

AWARDS/RECOGNITION

99. ACADEMIC ADVISOR

KOLEJ PERMATA INSAN

2024 UNIVERSITY

100. ACADEMIC ADVISOR

PUSAT PEMBANGUNAN KEMAHIRAN INSANIAH (PPKI), USIM

2024 UNIVERSITY

101. ACADEMIC ADVISOR

MENTOR FOR NATIONAL ROBOTICS COMPETITION

2024 STATE

102. ACADEMIC ADVISOR

MENTOR FOR NATIONAL ROBOTICS COMPETITION

2024 STATE

103. ACADEMIC ADVISOR

MENTOR FOR NATIONAL ROBOTICS COMPETITION

2024 STATE

104. ACADEMIC ADVISOR

ADVISOR FOR SCIENCE CASTLE IN ASIA (MATHEMATICS)

2024 INTERNATIONAL

105. INTELLIBIN

International STEM Innovation Competition 2024

2024 ANTARABANGSA SILVER

106. SUSTAINACROP

International STEM Innovation Competition 2024

2024 ANTARABANGSA GOLD

107. INNOVATIVE MATHEMATICAL LEARNING: 3D PRINTED BRAILLE-TANGIBLE GEOBOARDS FOR VISUALLY IMPAIRED STUDENTS

THE INTERNATIONAL CONFERENCE SCIENCE CASTLE ASIA 2024

2024 ANTARABANGSA GOLD

108. OIL/WATER SEPARATION: SYNTHESIS OF HYDROPHOBIC OIL PALM CELLULOSE AEROGEL VIA GRAPHENE-SILANE SURFACE MODIFICATION

THE INTERNATIONAL CONFERENCE SCIENCE CASTLE ASIA 2024

2024 ANTARABANGSA SILVER

109. INTELLIBIN : SELF-ISOLATED RECYCLE BIN

SMART INNOVATION COMPETITION 2024 INTERNATIONAL LEVEL

2024 ANTARABANGSA GOLD

110. MATHEMATICS BRAILLE FOR VISUALLY IMPAIRED: 3IN 1 3D PRINTED GEOBOARD

INTERNATIONAL INNOVATION AND DESIGN EXPO (IIDEX 2024)

2024 ANTARABANGSA BRONZE

111. OIL/WATER SEPARATION STUDY OF SYNTHESIZED CELLULOSE AEROGEL

INSAN JUNIOR RESEARCHER INTERNATIONAL CONFERENCE (IJURECON 2024)

2024 ANTARABANGSA GOLD

112. INVESTIGATING THE RECYCLING OF PET BOTTLES FOR THE PRODUCTION OF 3D PRINTING MATERIAL

INSAN JUNIOR RESEARCHER INTERNATIONAL CONFERENCE (IJURECON 2024)

2024

ANTARABANGSA

GOLD

AWARDS/RECOGNITION

113. CRAFTING MATHEMATICAL MINDS BY ENGAGING BRAILLE-TANGIBLE 3IN1 3D PRINTED GEOBOARDS MODULE FOR VISUALLY IMPAIRED CHILDREN

Semarak International Research Article Competition 2024 (SIRAC 2024)

2024 ANTARABANGSA GOLD

114. INTELLIBIN

Innovators of Tomorrow (Bidang Matematik), Karnival STEM Peringkat Negeri

2024 KEBANGSAAN BRONZE

115. LAB IN A BOX: BIOPLASTIC PRODUCTION FROM BANANA PEELS

4TH INNOVATION BANK CHALLENGE 2024 (IBC 2024)

2024 UNIVERSITI SILVER

116. 3D PRINTED EM WAVE ABSORBERS FROM SILICA SAND AND INDUSTRIAL WASTE

4TH INNOVATION BANK CHALLENGE 2024 (IBC 2024)

2024 UNIVERSITI GOLD

117. EXPLORING LEARNING GAPS IN THE FUNCTIONS SUBTOPIC: A STUDY OF FORM 4 KSSM ADDITIONAL MATHEMATICS PRETEST RESULTS OF SECONDARY SCHOOL

Semarak International Research Article Competition 2024 (SIRAC 2024)

2024 ANTARABANGSA SILVER

118. ACCESSIBLE CONGKAK: A BOARD GAME FOR THE VISUALLY IMPAIRED

Pertandingan Inovasi FKP 2024

2024 UNIVERSITI GOLD

119. CREATIVE AND INTERACTIVE VOCABULARY ACTIVITIES FOR ENGLISH LANGUAGE INSTRUCTION AND LEARNING

EAST COAST SCHOOLS EDUCATION RESEARCH SYMPOSIUM (ECSERS) 2024

2024 KEBANGSAAN BRONZE

120. INTEGRATING GAMIFICATION TO ENHANCE GENERAL TERMINOLOGY IN CYBERSECURITY AND QUANTUM CRYPTOGRAPHY

Pertandingan Inovasi FKP 2024

2024 UNIVERSITI SILVER

121. A CASE STUDY: THE SECONDARY STUDENTS OVERALL SATISFACTION ON ONLINE LEARNING

KONFERENSI NASIONAL TEKNOLOGI INFORMASI

2024 ANTARABANGSA BEST PAPER AWARD

122. MATHEMATICS MADE TANGIBLE: 3D PRINTED PUZZLE AND GEOBOARD

Innovators of Tomorrow (Bidang Matematik), Karnival STEM Peringkat Negeri

2024 KEBANGSAAN GOLD

123. 3D ORGAN IMAGING: ADVANCED 3D SCANNING TECHNOLOGY

International STEM Innovation Competition 2024

2024 ANTARABANGSA SILVER

124. 3IN1 3D PRINTED GEOBOARDS

International STEM Innovation Competition 2024

2024 ANTARABANGSA SILVER

125. ANUGERAH GURU PALING AKTIF

2023 UNIVERSITY

126. DESIGNING AN INVENTIVE BOARD GAME TO FOSTER INTERACTIVE LEARNING IN ADDITIONAL MATHEMATICS

PUTRA INNOCREATIVE POSTER COMPETITION INTERNATIONAL PUTRA INNOCREATIVE CARNIVAL IN TEACHING AND LEAR

2023

ANTARABANGSA

GOLD

AWARDS/RECOGNITION

127. FINE-TUNING UREA UPTAKE AND RELEASE MECHANISMS IN HYDROGEL: INSIGHTS FROM FTIR ANALYSIS

International Youth Research and Innovation Competition (IYRIC) 2023

2023 ANTARABANGSA GOLD

128. ENHANCING BRAILLE DOT PERCEPTION: INTRODUCING A SENSORY MODULE FOR NOVICE BRAILLE LEARNERS

International Youth Research and Innovation Competition (IYRIC) 2023

2023 ANTARABANGSA GOLD

129. SUSTAINABLE SAP HYDROGELS ENHANCE CONTROLLED UREA RELEASE IN AGRICULTURE

International Exhibition & Symposium on Productivity, Innovation, Knowledge and Education (I-SPIKE)

2023 ANTARABANGSA GOLD

130. PHYSICSCRAFT: EMPOWERING LEARNING THROUGH MINECRAFT EDUCATION

DARULAMAN INTERNATIONAL INNOVATION, COMPETITION & EXHIBITION (DiICE 2023)

2023 ANTARABANGSA GOLD

131. ENHANCING FINGER SENSITIVITY: SENSORY-BASED ACTIVITY MODULE (SENSORY-BAM)

VIRTUAL INNOVATION COMPETITION 2023

2023 KEBANGSAAN BRONZE

132. ORGANIC RECYCLING OF PLA WASTE FROM ADDITIVE MANUFACTURING AS CLOSE-LOOP BIOPLASTICS

MALAYSIA INVENTION & INNOVATION EXPO

2023 KEBANGSAAN SILVER

133. VOCABULARY GAME: AN ALTERNATIVE TEACHING AND LEARNING TOOLS FOR STUDENTS

PUTRA INNOCREATIVE POSTER COMPETITION INTERNATIONAL PUTRA INNOCREATIVE CARNIVAL IN TEACHING AND LEAR

2023 ANTARABANGSA BRONZE

134. ENHANCING LEARNING OF TRIANGLES VIA MINECRAFT EDUCATION

PUTRA INNOCREATIVE POSTER COMPETITION INTERNATIONAL PUTRA INNOCREATIVE CARNIVAL IN TEACHING AND LEAR

2023 ANTARABANGSA SILVER

135. ANUGERAH JURNAL TERBAIK

2022 OTHERS

136. ANUGERAH STAF CONTOH (FEBRUARI) 2022

2022 OTHERS

137. GAME-BASED LEARNING APPROACH IN UNDERSTANDING PHYSICS CONCEPT VIA MINECRAFT

INTERNATIONAL COMPETITION AND EXHIBITION ON COMPUTING INNOVATION 2022 (ICE-CInno 2022)

2022 ANTARABANGSA SILVER

138. ALTERNATIVE ASSESSMENT FOR ADDITIONAL MATHEMATICS AND ENGLISH SUBJECTS IN SCHOOL

INTERNATIONAL PUTRA INNOCREATIVE CARNIVAL IN TEACHING AND LEARNING 2022 (PICTL 2022)

2022 ANTARABANGSA SILVER

139. ADSORPTION AND SLOW RELEASED FERTILIZER BY HYDROGELS TO STIMULATE GERMINATION OF PAK CHOY UNDER CONTROL CONDITION

5th DIGITALISED INTERNATIONAL INVENTION, INNOVATION & DESIGN JOHOR 2022 (DIID 2022)

2022 ANTARABANGSA GOLD

140. PLA WASTE MANAGEMENT: BIODEGRADATION ALTERNATIVE

5th DIGITALISED INTERNATIONAL INVENTION, INNOVATION & DESIGN JOHOR 2022 (DIID 2022)

2022 ANTARABANGSA SILVER

AWARDS/RECOGNITION

141. MODELS AND MODULE: ESTABLISHMENT OF 3D PRINTED MODELS AND MODULE AS AN ALTERNATIVE WAY OF LEARNING QURAN FOR THE BLIND

5th DIGITALISED INTERNATIONAL INVENTION, INNOVATION & DESIGN JOHOR 2022 (DIIID 2022)

2022 ANTARABANGSA GOLD

142. LEARNING HIJAIYYAH BRAILLE USING 3D PRINTED MODELS FOR VISUALLY IMPAIRED

World Youth STEM Invention Innovation (WYSII 2022)

2022 KEBANGSAAN CERTIFICATE OF APPRECIATION

143. REGENERATED KENAF CORE CELLULOSE HYDROGELS AND FILMS

MALAYSIA INVENTION AND INNOVATION EXPO 2022 (MIIE 2022)

2022 ANTARABANGSA GOLD

144. ESTABLISHMENT OF REGENERATED CELLULOSE NANOFIBRE/GLYCEROL INTEGRATED WITH POLYLACTIC(ACID) VIA LAMINATION TECHNIQUE

5th DIGITALISED INTERNATIONAL INVENTION, INNOVATION & DESIGN JOHOR 2022 (DIIID 2022)

2022 ANTARABANGSA SILVER

145. STAF CONTOH (KATEGORI AKADEMIK) FEBRUARI 2021

2021 OTHERS

146. A CONCEPTUALIZATION OF TACTILE CATHODE RAY OSCILLOSCOPE IN LEARNING ELECTRONICS VIA 3D PRINTING APPROACH

12th MALAYSIAN TECHNICAL UNIVERSITIES CONFERENCE ON ENGINEERING AND TECHNOLOGY 2021

2021 ANTARABANGSA BEST PAPER AWARD

147. STUDY ON PYTHON AS A TOOL IN EDUCATION OF CRYPTOGRAPHY: AWARENESS AMONG SECONDARY SCHOOL STUDENTS

INSAN JUNIOR RESEARCHERS INTERNATIONAL CONFERENCE (IJURECON2021)

2021 KEBANGSAAN CERTIFICATE OF APPRECIATION

148. EMBEDDING HIJAIYYAH BRAILLE STRIPE IN 3D PRINTED BRAILLE CASEETTE FOR RECITING AL-QURAN AMONG THE BLINDS

Kongres dan Pertandingan Inovasi dalam Pengajaran dan Pembelajaran (kNovasi 2021)

2021 KEBANGSAAN SILVER

149. INCORPORATION OF PLASTICIZER IN CELLULOSE NANOFIBRE/3D PRINTED WASTE POLYLACTIC ACID (PLA) FOR THE FABRICATION OF FLEXIBLE BIOPLASTIC COMPOSITE

International Digital Innovation and Invention Challenge 2021 (IDIIC 2021)

2021 ANTARABANGSA GOLD

150. ENCAPSULATION OF WINGED TERMITES IN CELLULOSE NANOFIBRE FOR THE FABRICATION OF CELLULOSE BIOPLASTIC

INTERNATIONAL EXHIBITION & SYMPOSIUM ON PRODUCTIVITY, INNOVATION, KNOWLEDGE & EDUCATION AND DESIGN 2

2021 ANTARABANGSA SILVER

151. REGENERATED KENAF CORE CELLULOSE HYDROGEL AND FILMS PREPARED VIA PRE-COOLED METHOD

INTERNATIONAL EXHIBITION & SYMPOSIUM ON PRODUCTIVITY, INNOVATION, KNOWLEDGE & EDUCATION AND DESIGN 2

2021 ANTARABANGSA GOLD

152. DECRYSTALLINIZATION OF POLYETHYLENE TEREPHTHALATE (PET) FROM 3D PRINTED WASTE

INSAN JUNIOR RESEARCHER INTERNATIONAL CONFERENCE 2020 (IJURECON 2020)

2020 KEBANGSAAN

153. DECRYSTALLINIZATION OF POLYETHYLENE TEREPHTHALATE (PET) FROM 3D PRINTED WASTE

INSAN JUNIOR RESEARCHER INTERNATIONAL CONFERENCE 2020 (IJURECON 2020)

2020 KEBANGSAAN

154. DESIGNING TANGIBLE 3D PRINTED CATHODE RAY OSCILLOSCOPE IN LEARNING ELECTRONIC FOR PHYSICS IN SECONDARY SCHOOL

INSAN JUNIOR RESEARCHER INTERNATIONAL CONFERENCE 2020 (IJURECON 2020)



AWARDS/RECOGNITION

155. GIFT2GIVE:3DP KIT MODULES FOR PHYSICS

PERTANDINGAN PERINGKAT KEBANGSAAN INOVASI DALAM PdP kms 2020 (iPdP@KMS2020)

2020 KEBANGSAAN SILVER

156. INTEGRATING WORD BOARD GAME MODULE AND 3D PRINTED REEL-TO-REEL CASSETTE IN LEARNING QURAN FOR VISUALLY IMPAIRED

INVENTION, INNOVATION AND DESIGN EXPOSITION 2020 (IIDEX2020)

2020 ANTARABANGSA SILVER

157. INTEGRATION OF WINGED TERMITES AND CELLULOSE FOR THE FORMATION OF BIODEGRADABLE PLASTIC

eCARNIVAL RESEARCH INNOVATION (eCRI 2020)

2020 KEBANGSAAN BRONZE

158. INTEGRATING WORD BRAILLE GAME MODULE AND 3D PRINTED REEL-TO-REEL CASSETTE IN LEARNING QURAN FOR VISUALLY IMPAIRED

eCARNIVAL RESEARCH INNOVATION (eCRI 2020)

2020 KEBANGSAAN BRONZE

159. GIFT TO GIVE: EXPLORING GIFTED STUDENTS AS TRENDSETTER TO INTENSIFY PHYSICS FOR WEAK STUDENTS THROUGH 3D PRINTING KITS MODULE

eCARNIVAL RESEARCH INNOVATION (eCRI 2020)

2020 KEBANGSAAN BRONZE

160. DEPOLYMERIZATION OF POLYEHTLENE TEREPHTHALATE (PET) FROM 3D PRINTED WASTE VIA THERMAL AND ALKALINE HYDROLYSIS

eCARNIVAL RESEARCH INNOVATION (eCRI 2020)

2020 KEBANGSAAN SILVER

161. CRYPTON HEROES: LEARN CRYPTOGRAPHY USING RPG

INTERNATIONAL PUTRA INNOCREATIVE CARNIVAL IN TEACHING AND LEARNING 2020

2020 ANTARABANGSA SILVER

162. LOW-COST 3D PRINTED-TERMINALIA CATAPPA FRUIT SHELLS COMPOSITES AS POTENTIAL ELECTROMAGNETIC ABSORBING MATERIALS

INTERNATIONAL INNOVATION COMPETITION (INNOCOM2020)

2020 ANTARABANGSA SILVER

163. INTERNATIONAL SYMPOSIUM ON ADVANCED MATERIALS AND NANOTECHNOLOGY

2019 INTERNATIONAL

164. ANUGERAH STAF CONTOH APRIL 2019

2019 OTHERS

165. A 3D HOLOGRAPHIC DISPLAY FOR AUGMENTED REALITY: A PRACTICAL APPROACH FOR INTERACTIVE LEARNING IN PHYSICS

INTERNATIONAL COMPETITION AND EXHIBITIONS ON COMPUTING INNOVATIONS 2019

2019 ANTARABANGSA GOLD