

Profile Image

**TS. DR. HATIKA BINTI
KACO**

PENSYARAH UNIVERSITI DS13

CONTACT

Phone: 067988030

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. 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

2. 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

3. HALALTIFY DNA KIT

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

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

2023 GERAN PENYELIDIKAN PENTADBIR ON GOING CO-RESEARCHER

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

2021 GERAN PENYELIDIKAN KHAS ON GOING CO-RESEARCHER

RESEARCH

6. 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

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

2020 GERAN KPT COMPLETED CO-RESEARCHER

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

2019 GERAN PENYELIDIKAN USIM COMPLETED MAIN RESEARCHER

9. USIMAKERS (INDUSTRY4WRD - INDUSTRY@UNIVERSITY)

2019 PROJEK REVOLUSI INDUSTRI 4.0 COMPLETED CO-RESEARCHER

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

2018 GERAN PENYELIDIKAN HEADSTART PROGRAM COMPLETED CO-RESEARCHER

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

AIP CONFERENCE PROCEEDINGS

2025 JOURNAL SCOPUS CORRESPONDING AUTHOR

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

INTERNATIONAL JOURNAL OF EDUCATION, PSYCHOLOGY AND COUNSELING

2024 JOURNAL MYCITE CO-AUTHOR

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

JOURNAL OF ADVANCED RESEARCH IN APPLIED MECHANICS

2024 JOURNAL SCOPUS CO-AUTHOR

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

MATERIALS SCIENCE FORUM

2024 JOURNAL ERA CORRESPONDING AUTHOR

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

SEMARAK INTERNATIONAL JOURNAL OF NANOTECHNOLOGY

2024 JOURNAL MYCITE CO-AUTHOR

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

INDONESIAN JOURNAL OF INFORMATION SYSTEMS (IJIS)

2024 JOURNAL OTHER DATABASE CO-AUTHOR

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

INDUSTRIAL CROPS AND PRODUCTS

2024 JOURNAL ERA CO-AUTHOR

8. OIL/WATER SEPARATION STUDY OF SYNTHESIZED CELLULOSE AEROGEL

5TH INSAN JUNIOR RESEARCHERS INTERNATIONAL CONFERENCE & INNOVATION 2024

2024 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

9. SUSTAINACROP: CULTIVATING PRECISION THROUGH AGRICULTURE

APS PROCEEDINGS VOLUME 17 |

2024 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

10. 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

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

INTERNATIONAL SEMINAR ON ISLAMIC AND SCIENCE

2024 PROCEEDING NON-INDEX MAIN AUTHOR

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

IJURECON 2024

2024 PROCEEDING OTHER DATABASE CORRESPONDING AUTHOR

13. 3D PRINTING ACTIVITY FOR YOUNG INNOVATORS

2024 BOOK EDITOR

PUBLICATION

14. 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

15. 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

16. 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

17. 3D PRINTED FUNCTIONALIZED NANOCELLULOSE AS AN ADSORBENT IN BATCH AND FIXED-BED SYSTEMS

POLYMERS

2023 JOURNAL ERA CO-AUTHOR

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

POLYMERS

2023 JOURNAL ERA CO-AUTHOR

19. UNDERSTANDING ENGLISH VOCABULARY AMONG PERMATA INSAN COLLEGE STUDENTS

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

2023 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

20. 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

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

INSAN JUNIOR RESEARCHER INTERNATIONAL CONFERENCE

2023 PROCEEDING NON-INDEX CO-AUTHOR

22. 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

23. 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

24. 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

25. 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

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

INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN PROGRESSIVE EDUCATION AND DEVELOPMENT

2022 JOURNAL ERA CO-AUTHOR

PUBLICATION

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

INTERNATIONAL JOURNAL OF EDUCATION, PSYCHOLOGY AND COUNSELING

2022 JOURNAL MYCITE CO-AUTHOR

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

POLYMERS

2022 JOURNAL ERA MAIN AUTHOR / CONTACT PERSON IN USIM

29. 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

30. 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

31. 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

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

2ND INSAN JUNIOR RESEARCHERS INTERNATIONAL CONFERENCE 2021

2022 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

33. 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

34. 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

35. 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

36. 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

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

JURNAL PENDIDIKAN SAINS DAN MATEMATIK MALAYSIA

2021 JOURNAL MYCITE CORRESPONDING AUTHOR

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

POLYMERS

2021 JOURNAL ERA MAIN AUTHOR / CONTACT PERSON IN USIM

39. 3D PRINTED POLYURETHANE REINFORCED GRAPHENE NANOPATELETS

MATERIALS SCIENCE FORUM

2021 JOURNAL ERA MAIN AUTHOR / CONTACT PERSON IN USIM

PUBLICATION

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

MATERIALS LETTERS

2021 JOURNAL ERA MAIN AUTHOR / CONTACT PERSON IN USIM

41. 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

42. 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

43. 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

44. 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

45. STUDY ON TWO-POINT DISCRIMINATION TACTILE SENSORY FOR RECITING QURAN BRAILLE DOTS

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

2021 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

46. 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

47. 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

48. 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

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

2021 BOOK EDITOR

50. 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

51. 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

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

TEST ENGINEERING AND MANAGEMENT

2020 JOURNAL SCOPUS MAIN AUTHOR

PUBLICATION

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

JOURNAL OF COMPUTATIONAL AND THEORETICAL NANOSCIENCE

2020 JOURNAL SCOPUS CO-AUTHOR

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

POLYMERS

2020 JOURNAL ERA CO-AUTHOR

55. 3D PRINTED LAMINATED CaCO₃-NANOCELLULOSE FILMS AS CONTROLLED-RELEASE 5-FLUOROURACIL

POLYMERS

2020 JOURNAL ERA CO-AUTHOR

56. 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

57. 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

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

POLYMERS

2019 JOURNAL ERA CO-AUTHOR

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

INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES

2019 JOURNAL ERA CO-AUTHOR

60. DETOXIFICATION OF LIGNOCELLULOSIC HYDROLYSATES BY INSITU FORMATION OF Fe(0) NANOPARTICLES ON ACTIVATED CARBON

BIORESOURCES

2019 JOURNAL ERA CO-AUTHOR

61. 3D PRINTING OF UV-CURABLE POLYURETHANE INCORPORATED WITH SURFACE-GRAFTED NANOCELLULOSE

NANOMATERIALS

2019 JOURNAL ISI CO-AUTHOR

62. 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

63. 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

64. 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

65. ENHANCED CORROSION INHIBITION USING PURIFIED TANNIN IN HCL MEDIUM

MALAYSIAN JOURNAL OF ANALYTICAL SCIENCES

2018 JOURNAL SCOPUS MAIN AUTHOR

PUBLICATION

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

CELLULOSE CHEMISTRY AND TECHNOLOGY

2018 JOURNAL WOS CO-AUTHOR

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

CELLULOSE

2018 JOURNAL WOS MAIN AUTHOR

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

SAINS MALYSIANA

2018 JOURNAL WOS CO-AUTHOR

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

SAINS MALYSIANA

2018 JOURNAL WOS CO-AUTHOR

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

SAINS MALYSIANA

2018 JOURNAL WOS CO-AUTHOR

71. 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

72. PENGENALAN

POTENSI PRODUK HIJAU TERMAJU DARIPADA SUMBER BIOJISIM PERTANIAN

2018 CHAPTER IN BOOK MAIN AUTHOR

73. LIGNOSELULOSA

POTENSI PRODUK HIJAU TERMAJU DARIPADA SUMBER BIOJISIM PERTANIAN

2018 CHAPTER IN BOOK MAIN AUTHOR

74. SUMBER LIGNOSELULOSA DARIPADA HASIL INDUSTRI PERTANIAN

POTENSI PRODUK HIJAU TERMAJU DARIPADA SUMBER BIOJISIM PERTANIAN

2018 CHAPTER IN BOOK MAIN AUTHOR

75. POTENSI BAHARU PRODUK KONVENSIONAL DARIPADA BIOJISIM LIGNOSELULOSA

POTENSI PRODUK HIJAU TERMAJU DARIPADA SUMBER BIOJISIM PERTANIAN

2018 CHAPTER IN BOOK MAIN AUTHOR

76. SELULOSA SEBAGAI SUMBER APLIKASI TERMAJU

POTENSI PRODUK HIJAU TERMAJU DARIPADA SUMBER BIOJISIM PERTANIAN

2018 CHAPTER IN BOOK MAIN AUTHOR

77. PENUTUP

POTENSI PRODUK HIJAU TERMAJU DARIPADA SUMBER BIOJISIM PERTANIAN

2018 CHAPTER IN BOOK MAIN AUTHOR

78. 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

PUBLICATION

79. 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

80. 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

81. 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. ANUGERAH PENILAI BERKUALITI JANUARI 2024

2024 UNIVERSITY

2. ANUGERAH PENILAI BERKUALITI MAC 2024

2024 UNIVERSITY

3. ANUGERAH PENYELIDIK CEMERLANG MAC 2024

2024 UNIVERSITY

4. ANUGERAH PENULIS JURNAL CEMERLANG JUN 2024

2024 UNIVERSITY

5. ANUGERAH PENULIS JURNAL CEMERLANG FEBRUARI 2024

2024 UNIVERSITY

6. ANUGERAH PENILAI BERKUALITI DISEMBER 2024

2024 UNIVERSITY

7. ANUGERAH PENILAI BERKUALITI JUNE 2024

2024 UNIVERSITY

8. ANUGERAH PENILAI BERKUALITI JULAI 2024

2024 UNIVERSITY

9. ANUGERAH PENILAI BERKUALITI OGOS 2024

2024 UNIVERSITY

10. ANUGERAH PENILAI BERKUALITI NOVEMBER 2024

2024 UNIVERSITY

11. ANUGERAH PENULIS JURNAL CEMERLANG APRIL 2024

2024 UNIVERSITY

12. ANUGERAH PENULIS JURNAL CEMERLANG OGOS 2024

2024 UNIVERSITY

13. ANUGERAH PENULIS JURNAL CEMERLANG OKTOBER 2024

2024 UNIVERSITY

14. PERTANDINGAN ANYAMAN KETUPAT

2024 UNIVERSITY

AWARDS/RECOGNITION

15. ANUGERAH INOVASI TERBAIK MAC 2024

2024 UNIVERSITY

16. ANUGERAH INOVASI TERBAIK MEI 2024

2024 UNIVERSITY

17. ANUGERAH INOVASI TERBAIK JUN 2024

2024 UNIVERSITY

18. ANUGERAH INOVASI TERBAIK APRIL 2024

2024 UNIVERSITY

19. ANUGERAH INOVASI TERBAIK SEPTEMBER 2024

2024 UNIVERSITY

20. ANUGERAH INOVASI TERBAIK OKTOBER 2024

2024 UNIVERSITY

21. ANUGERAH JURI TERBAIK OKTOBER 2024

2024 UNIVERSITY

22. ANUGERAH PENULIS JURNAL TERBAIK

2024 UNIVERSITY

23. ACADEMIC ADVISOR

PETROSAINS SDN. BHD

2024 STATE

24. ACADEMIC ADVISOR

PETROSAINS SDN. BHD.

2024 NATIONAL

25. ACADEMIC ADVISOR

PETROSAINS SDN. BHD

2024 NATIONAL

26. ACADEMIC ADVISOR

AKADEMI SAINS MALAYSIA

2024 STATE

27. ACADEMIC ADVISOR

PETROSAINS SDN. BHD

2024 STATE

28. ACADEMIC ADVISOR

ROBOXPERIENCE CARNIVAL 2024

2024 NATIONAL

AWARDS/RECOGNITION

29. ACADEMIC ADVISOR

YOUTH TECH ASIA CHALLENGE

2024

INTERNATIONAL

30. ACADEMIC ADVISOR

KEMENTERIAN SAINS, TEKNOLOGI DAN INOVASI

2024

NATIONAL

31. ACADEMIC ADVISOR

KOLEJ PERMATA INSAN

2024

UNIVERSITY

32. ACADEMIC ADVISOR

PUSAT PEMBANGUNAN KEMAHIRAN INSANIAH (PPKI), USIM

2024

UNIVERSITY

33. ACADEMIC ADVISOR

MENTOR FOR NATIONAL ROBOTICS COMPETITION

2024

STATE

34. ACADEMIC ADVISOR

MENTOR FOR NATIONAL ROBOTICS COMPETITION

2024

STATE

35. ACADEMIC ADVISOR

MENTOR FOR NATIONAL ROBOTICS COMPETITION

2024

STATE

36. ACADEMIC ADVISOR

MENTOR FOR PUTRAJAYA INTERNATIONAL ROBOTICS CHALLENGE 2.0 2024

2024

INTERNATIONAL

37. ACADEMIC ADVISOR

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

2024

STATE

38. ACADEMIC ADVISOR

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

2024

STATE

39. ACADEMIC ADVISOR

GURU PEMBIMBING ROBOT BATTLE CHALLENGE, KARNIVAL STEM PERINGKAT NEGERI SEMBILAN

2024

STATE

40. ACADEMIC ADVISOR

ADVISOR FOR SCIENCE CASTLE IN ASIA (MATHEMATICS)

2024

INTERNATIONAL

41. ACADEMIC ADVISOR

ADVISOR FOR SCIENCE CASTLE IN ASIA (SCIENCES)

2024

INTERNATIONAL

2024

ANTARABANGSA

GOLD

AWARDS/RECOGNITION

43. 3IN1 3D PRINTED GEOBOARDS

International STEM Innovation Competition 2024

2024 ANTARABANGSA SILVER

44. 3D ORGAN IMAGING: ADVANCED 3D SCANNING TECHNOLOGY

International STEM Innovation Competition 2024

2024 ANTARABANGSA SILVER

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

KONFERENSI NASIONAL TEKNOLOGI INFORMASI

2024 ANTARABANGSA BEST PAPER AWARD

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

Pertandingan Inovasi FKP 2024

2024 UNIVERSITI SILVER

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

EAST COAST SCHOOLS EDUCATION RESEARCH SYMPOSIUM (ECSERS) 2024

2024 KEBANGSAAN BRONZE

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

4TH INNOVATION BANK CHALLENGE 2024 (IBC 2024)

2024 UNIVERSITI SILVER

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

Pertandingan Inovasi FKP 2024

2024 UNIVERSITI GOLD

50. 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

51. 3D PRINTED EM WAVE ABSORBERS FROM SILICA SAND AND INDUSTRIAL WASTE

4TH INNOVATION BANK CHALLENGE 2024 (IBC 2024)

2024 UNIVERSITI GOLD

52. INTELLIBIN

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

2024 KEBANGSAAN BRONZE

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

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

2024 KEBANGSAAN GOLD

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

INSAN JUNIOR RESEARCHER INTERNATIONAL CONFERENCE (IJURECON 2024)

2024 ANTARABANGSA GOLD

55. OIL/WATER SEPARATION STUDY OF SYNTHESIZED CELLULOSE AEROGEL

INSAN JUNIOR RESEARCHER INTERNATIONAL CONFERENCE (IJURECON 2024)

2024 ANTARABANGSA GOLD

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

INTERNATIONAL INNOVATION AND DESIGN EXPO (iDEX 2024)

2024

ANTARABANGSA

BRONZE

AWARDS/RECOGNITION

57. INTELLIBIN : SELF-ISOLATED RECYCLE BIN

SMART INNOVATION COMPETITION 2024 INTERNATIONAL LEVEL

2024 ANTARABANGSA GOLD

58. 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

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

THE INTERNATIONAL CONFERENCE SCIENCE CASTLE ASIA 2024

2024 ANTARABANGSA GOLD

60. SUSTAINACROP

International STEM Innovation Competition 2024

2024 ANTARABANGSA GOLD

61. INTELLIBIN

International STEM Innovation Competition 2024

2024 ANTARABANGSA SILVER

62. ANUGERAH GURU PALING AKTIF

2023 UNIVERSITY

63. 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

64. ENHANCING LEARNING OF TRIANGLES VIA MINECRAFT EDUCATION

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

2023 ANTARABANGSA SILVER

65. 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

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

MALAYSIA INVENTION & INNOVATION EXPO

2023 KEBANGSAAN SILVER

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

VIRTUAL INNOVATION CEMPETITION 2023

2023 KEBANGSAAN BRONZE

68. PHYSICSCRAFT: EMPOWERING LEARNING THROUGH MINECRAFT EDUCATION

DARULAMAN INTERNATIONAL INNOVATION, COMPETITION & EXHIBITION (DIICE 2023)

2023 ANTARABANGSA GOLD

69. SUSTAINABLE SAP HYDROGELS ENHANCE CONTROLLED UREA RELEASE IN AGRICULTURE

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

2023 ANTARABANGSA GOLD

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

International Youth Research and Innovation Competition (IYRIC) 2023

2023

ANTARABANGSA

GOLD

AWARDS/RECOGNITION

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

International Youth Research and Innovation Competition (IYRIC) 2023

2023 ANTARABANGSA GOLD

72. ANUGERAH JURNAL TERBAIK

2022 OTHERS

73. ANUGERAH STAF CONTOH (FEBRUARI) 2022

2022 OTHERS

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

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

2022 ANTARABANGSA GOLD

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

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

2022 ANTARABANGSA SILVER

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

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

2022 ANTARABANGSA SILVER

77. 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

78. PLA WASTE MANAGEMENT: BIODEGRADATION ALTERNATIVE

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

2022 ANTARABANGSA SILVER

79. 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

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

World Youth STEM Invention Innovation (WYSII 2022)

2022 KEBANGSAAN CERTIFICATE OF APPRECIATION

81. REGENERATED KENAF CORE CELLULOSE HYDROGELS AND FILMS

MALAYSIA INVENTION AND INNOVATION EXPO 2022 (MIIE 2022)

2022 ANTARABANGSA GOLD

82. STAF CONTOH (KATEGORI AKADEMIK) FEBRUARI 2021

2021 OTHERS

83. 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

84. 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

AWARDS/RECOGNITION

85. 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

86. 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

87. EMBEDDING HIJAIYYAH BRAILE 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

88. INCOPORATION 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

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

INTERNATIONAL INNOVATION COMPETITION (INNOCOM2020)

2020 ANTARABANGSA SILVER

90. CRYPTON HEROES: LEARN CRYPTOGRAPHY USING RPG

INTERNATIONAL PUTRA INNOCREATIVE CARNIVAL IN TEACHING AND LEARNING 2020

2020 ANTARABANGSA SILVER

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

eCARNIVAL RESEARCH INNOVATION (eCRI 2020)

2020 KEBANGSAAN BRONZE

92. GIFT2GIVE:3DP KIT MODULES FOR PHYSICS

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

2020 KEBANGSAAN SILVER

93. 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

94. 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

95. 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

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

eCARNIVAL RESEARCH INNOVATION (eCRI 2020)

2020 KEBANGSAAN SILVER

97. INTERNATIONAL SYMPOSIUM ON ADVANCED MATERIALS AND NANOTECHNOLOGY

2019 INTERNATIONAL

2019

OTHERS

AWARDS/RECOGNITION

99. 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