



**PROF. MADYA DR. AFFA
ROZANA BINTI ABDUL
RASHID**

PENSYARAH UNIVERSITI DS14

CONTACT

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affarozana@usim.edu.my

Faculty: Fakulti Sains
Dan Teknologi

SUPERVISION

PhD - Completed: 0, Ongoing: 0

Master - Completed: 2,
Ongoing: 0

AREAS OF EXPERTISE

Nano Photonic

Nano - Materials

ACADEMIC QUALIFICATION

PhD in Nanofotonik (2014)

Master in Mikroelektronik (2009)

Bachelor in Kejuruteraan Elektrik Dan Elektronik (2008)

RESEARCH

1. ZNO:RGO COATED OPTICAL FIBER SENSOR FOR HEAVY METAL IONS DETECTION

2023

GERAN PENYELIDIKAN USIM

ON GOING

MAIN RESEARCHER

2. ENHANCING LOCALIZED PLASMONIC EFFECT USING CHROMIUM-GOLD NANORODS COATED ON FIBER PROBE FOR OPTICAL TRAPPING APPLICATION

2023

GERAN PENYELIDIKAN USIM

ON GOING

CO-RESEARCHER

3. HYBRID ZNO NANOPARTICLES-BIOCHAR MATERIALS IN PHOTOCATALYTIC OPTICAL FIBER SENSOR FOR WASTEWATER TREATMENT APPLICATION

2023

GERAN PENYELIDIKAN USIM

ON GOING

CO-RESEARCHER

4. BANANA-PEEL-DERIVED ACTIVATED CARBON AS SUSTAINABLE ELECTRODE MATERIALS FOR ELECTRO-CHEMICAL CAPACITORS

2023

GERAN PENYELIDIKAN USIM

ON GOING

CO-RESEARCHER

5. 3D PRINTED EMERGENCY DEVICE (VENTILATOR)

2020

GERAN PENYELIDIKAN COVID-19

COMPLETED

CO-RESEARCHER

RESEARCH

6. TENSIOMETRIC SURFACE MEASUREMENT BY FIBER OPTIC DISPLACEMENT SENSOR FOR MEDICAL DIAGNOSTIC

2017

GERAN KPT

COMPLETED

CO-RESEARCHER

7. NANOCRYSTALLINE METAL OXIDE COATED POF FIBER FOR VOC SENSING APPLICATIONS

2015

GERAN KPT

COMPLETED

MAIN RESEARCHER

8. EVANESCENT FIELD STUDY ON A COATED U-SHAPED FIBER ABSORPTION SENSOR

2015

GERAN PENYELIDIKAN JANGKA PENDEK

COMPLETED

MAIN RESEARCHER

9. HIGH SENSITIVE FREE SPACE OPTICS - PLASMONIC SENSOR

2014

GERAN KPT

COMPLETED

CO-RESEARCHER

PUBLICATION

1. MAXIMIZING LIGHT COUPLING EFFICIENCY VIA LSPR EFFECT USING AUNP-COATED ANGLE-CLEAVED FIBER PROBE FOR OPTICAL MICROSCOPY APPLICATION

SEMARAK INTERNATIONAL JOURNAL OF ELECTRONIC SYSTEM ENGINEERING

2026 JOURNAL OTHER DATABASE CORRESPONDING AUTHOR

2. IOT-INTEGRATED SMART GARDENING SYSTEM FOR REAL-TIME MONITORING AND USER-CONTROLLED WITH SMART FILM

JOURNAL OF TELECOMMUNICATION, ELECTRONIC AND COMPUTER ENGINEERING

2025 JOURNAL SCOPUS CORRESPONDING AUTHOR

3. ROLE OF WATER CONTACT ANGLE IN BIOFUNCTIONALIZEDGOLD SENSORS FOR GLUCOSE DETECTION USING K-SPR

JURNAL OPTOELEKTRONIK

2025 JOURNAL OTHER DATABASE CO-AUTHOR

4. PAPER PROCEEDINGS THE 10TH INTERNATIONAL CONFERENCE ON QURAN AS FOUNDATION OF CIVILIZATION (SWAT) 2025

THE 10TH INTERNATIONAL CONFERENCE ON QURAN AS FOUNDATION OF CIVILIZATION (SWAT) 2025

2025 PROCEEDING NON-INDEX MAIN AUTHOR

5. RAMAN AND CHNS-BASED ELUCIDATION OF CARBON DEVELOPMENT IN BANANA PEEL BIOMASS FOR SUSTAINABLE CARBON MATERIALS

INTERNATIONAL CONFERENCE ON RESEARCH AND PRACTICES IN SCIENCE, TECHNOLOGY AND SOCIAL SCIENCES

2025 PROCEEDING OTHER DATABASE MAIN AUTHOR

6. ZNO AND GO COATED PLASTIC OPTICAL FIBER FOR LOW CONCENTRATION OF ETHANOL DETECTION IN BEER

OPTOELECTRONICS AND ADVANCED MATERIALS ♦ RAPID COMMUNICATIONS (OPTOELECTRON. ADV. MAT.)

2024 JOURNAL ISI AND SCOPUS MAIN AUTHOR

7. EARLY DETECTION OF HYPERURICEMIA USING HYBRID AU? ZNO BIOSENSOR AND KRETSCHMANN-BASED SPR AT VISIBLE OPTICAL WAVELENGTHS

2024 IEEE INTERNATIONAL CONFERENCE ON SEMICONDUCTOR ELECTRONICS (ICSE)

2024 PROCEEDING WOS CO-AUTHOR

8. AUNPS/GO COATED U-SHAPE POLISHED SMF BASED LOCALIZED SPR SENSOR FOR MUSTA?MAL WATER IDENTIFICATION

INTERNATIONAL JOURNAL OF NANOELECTRONICS AND MATERIALS

2023 JOURNAL SCOPUS CO-AUTHOR

9. NEXT-GENERATION NANOPHOTONIC-ENABLED BIOSENSORS FOR INTELLIGENT DIAGNOSIS OF SARS-COV-2 VARIANTS

SCIENCE OF THE TOTAL ENVIRONMENT

2023 JOURNAL ISI CO-AUTHOR

10. METAL OXIDE COATED OPTICAL FIBER FOR HUMIDITY SENSING APPLICATION: A REVIEW

IEEE ACCESS

2023 JOURNAL ISI CO-AUTHOR

11. VISIBLE AND ANGULAR INTERROGATION OF KRETSCHMANN-BASED SPR USING HYBRID AU-ZNO OPTICAL SENSOR FOR HYPERURICEMIA DETECTION

HELIYON

2023 JOURNAL OTHER DATABASE CO-AUTHOR

12. GRAPHENE-BASED HYBRID SENSOR FOR THE DETECTION OF CANCER CELLS USING K-SPR TECHNOLOGY

2023 IEEE REGIONAL SYMPOSIUM ON MICRO AND NANOELECTRONICS (RSM)

2023 PROCEEDING WOS CO-AUTHOR

13. INSTRUMENTATION ANALYSIS OF FODS PERFORMANCE THROUGH BUNDLED PROBES AND LIGHT SOURCES

11TH INTERNATIONAL CONFERENCE ON APPLIED SCIENCE AND TECHNOLOGY 2022

2023 PROCEEDING NON-INDEX MAIN AUTHOR

PUBLICATION

14. INVESTIGATING THE EFFECT OF WAIST DIAMETER ON SENSITIVITY OF THE ETCHED PLASTIC OPTICAL FIBER BASED ETHANOL SENSOR

OPTOELECTRONICS AND ADVANCED MATERIALS ♦ RAPID COMMUNICATIONS (OPTOELECTRON. ADV. MAT.)

2022 JOURNAL ISI AND SCOPUS CORRESPONDING AUTHOR

15. SENSITIVITY OPTIMIZATION OF AU/TI BASED-SPR SENSOR BY CONTROLLING LIGHT INCIDENT WAVELENGTH FOR GAS SENSING APPLICATION

JOURNAL OF MATERIALS IN LIFE SCIENCES (JOMALISC)

2022 JOURNAL MYCITE CO-AUTHOR

16. SYNTHESIS OF GRAPHENE BASED NANOCOMPOSITES AND THEIR APPLICATION - A REVIEW

MALAYSIAN JOURNAL OF SCIENCE, HEALTH & TECHNOLOGY (MJOSHT)

2022 JOURNAL OTHER DATABASE MAIN AUTHOR

17. PLASTIC OPTICAL FIBER PH SENSOR BASED ON SOL GEL FILM

JOURNAL OF MATERIALS IN LIFE SCIENCES (JOMALISC)

2022 JOURNAL OTHER DATABASE CORRESPONDING AUTHOR

18. DEVELOPMENT OF SMART SHOES USING PIEZOELECTRIC MATERIAL

MALAYSIAN JOURNAL OF SCIENCE, HEALTH & TECHNOLOGY

2021 JOURNAL OTHER DATABASE MAIN AUTHOR / CONTACT PERSON IN USIM

19. GREEN SYNTHESIS OF REDUCED GRAPHENE OXIDE BY USING REDUCING SUGARS

NANO HYBRIDS AND COMPOSITES

2021 JOURNAL WOS MAIN AUTHOR / CONTACT PERSON IN USIM

20. OPTICAL PROPERTIES OF ZNO, TiO2 AND ZNO: TiO2 COMPOSITE FILMS

NANO HYBRIDS AND COMPOSITES

2021 JOURNAL WOS MAIN AUTHOR / CONTACT PERSON IN USIM

21. U-BENT POLYMER OPTICAL FIBER FOR ESCHERICHIA COLI DETECTION

OPTOELECTRONICS AND ADVANCED MATERIALS ♦ RAPID COMMUNICATIONS (OPTOELECTRON. ADV. MAT.)

2020 JOURNAL ISI AND SCOPUS MAIN AUTHOR

22. DEVELOPMENT OF AUTOMATED MINI GREENHOUSE EMBEDDED WITH ARDUINO

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH IN ENGINEERING INNOVATION

2020 JOURNAL OTHER DATABASE CO-AUTHOR

23. DESIGN AND IMPLEMENTATION OF HOME SECURITY SYSTEM USING PIEZOELECTRIC SENSOR

MALAYSIAN JOURNAL OF SCIENCE HEALTH & TECHNOLOGY

2020 JOURNAL OTHERS DATABASE MAIN AUTHOR

24. GRAPHENE BASED MACROBEND UNCLAD SMF FOR MONITORING PH LEVEL IN AQUEOUS ENVIRONMENT

SOLID STATE PHENOMENA

2020 JOURNAL ERA CO-AUTHOR

25. ZNO COATED OPTICAL FIBER FOR ALCOHOL SENSING APPLICATIONS

SOLID STATE PHENOMENA

2020 JOURNAL SCOPUS MAIN AUTHOR

26. ZINC OXIDE THIN FILM SYNTHESIZED BY SOL-GEL METHOD

SOLID STATE PHENOMENA

2020 JOURNAL SCOPUS CO-AUTHOR

PUBLICATION

27. SENSITIVITY ANALYSES OF CU/CHITOSAN AND AG/CHITOSAN BASED SPR BIOSENSOR FOR GLUCOSE DETECTION

INTERNATIONAL LASER TECHNOLOGY AND OPTICS SYMPOSIUM 2020

2020 PROCEEDING NON-INDEX CO-AUTHOR

28. HIGH-YIELD AND STEPWISE SYNTHESIS OF GRAPHENE OXIDE BY MODIFIED HUMMERS? METHOD

INTERNATIONAL JOURNAL OF NANOELECTRONICS AND MATERIALS

2019 JOURNAL SCOPUS CORRESPONDING AUTHOR

29. ZINC OXIDE COATED POLYMER OPTICAL FIBER FOR MEASURING URIC ACID CONCENTRATIONS

OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS

2019 JOURNAL ISI MAIN AUTHOR

30. EFFECT OF SOLUTION MOLARITY ON OPTICAL PROPERTIES OF AL DOPED ZNO THIN FILMS

JOURNAL OF PHYSICS.: CONFERENCE SERIES

2019 JOURNAL SCOPUS MAIN AUTHOR

31. URIC ACID DETECTION BY USING CONTACTLESS INTENSITY MODULATION BASED DISPLACEMENT SENSOR

PHOTONICS MEETING 2019, THE 2ND ANNUAL CONFERENCE AND WORKSHOP

2019 PROCEEDING NON-INDEX CO-AUTHOR

32. EFFECT OF NOBLE METAL THIN FILM THICKNESSES ON SURFACE PLASMON RESONANCE (SPR) SIGNAL AMPLIFICATION

JOURNAL OF ADVANCED RESEARCH IN MATERIALS SCIENCE

2018 JOURNAL SCI CO-AUTHOR

33. EFFECT OF THICKNESS AND AGEING TIME ON OPTICAL PROPERTIES OF ZINC OXIDE FILM USING SOL-GEL METHOD

INTERNATIONAL JOURNAL OF NANOELECTRONICS AND MATERIALS

2018 JOURNAL SCOPUS MAIN AUTHOR

34. INFLUENCE OF ANNEALING TEMPERATURE ON OPTICAL PROPERTIES OF AL DOPED ZNO NANOPARTICLES VIA SOL-GEL METHODS

INTERNATIONAL CONFERENCE ON RECENT ADVANCEMENTS IN SCIENCE AND TECHNOLOGY

2018 PROCEEDING NON-INDEX MAIN AUTHOR

35. EVANESCENT FIELD STUDY ON A U-SHAPED SILICA FIBER ABSORPTION SENSOR USING NON SEQUENTIAL RAY TRACING

SOLID STATE PHENOMENA

2017 JOURNAL WOS MAIN AUTHOR

36. MANIPULATING MICROBENDING LOSSES IN SINGLE MODE OPTICAL OPEN FIBER FOR PRESSURE SENSING

JOURNAL OF ADVANCED RESEARCH IN APPLIED SCIENCES AND ENGINEERING TECHNOLOGY

2017 JOURNAL ERA CO-AUTHOR

37. CHEMICAL TAPERING OF POLYMER OPTICAL FIBER

THE INTERNATIONAL CONFERENCE ON APPLIED PHOTONICS AND ELECTRONICS 2017

2017 PROCEEDING NON-INDEX MAIN AUTHOR

38. EFFECT OF SOLUTION MOLARITY ON OPTICAL PROPERTIES OF AL DOPED ZNO THIN FILMS

7TH ASIAN PHYSICS SYMPOSIUM

2017 PROCEEDING NON-INDEX MAIN AUTHOR

39. INFLUENCE OF ELECTROMAGNETIC (EM) WAVES POLARIZATION MODES ON SURFACE PLASMON RESONANCE

THE INTERNATIONAL CONFERENCE ON ADVANCED PHOTONICS AND ELECTRONIC (INCAPE) 2017

2017 PROCEEDING NON-INDEX CO-AUTHOR

PUBLICATION

40. SYNTHESIS METHODS OF GOLD NANOPARTICLES FOR LOCALIZED SURFACE PLASMON RESONANCE (LSPR) SENSOR APPLICATIONS

THE INTERNATIONAL CONFERENCE ON APPLIED PHOTONICS AND ELECTRONICS 2017

2017 PROCEEDING NON-INDEX CO-AUTHOR

41. OPTIMIZATION OF GOLD THIN FILMS THICKNESSES IN ENHANCING SPR RESPONSE

ICSE2016 INTERNATIONAL CONFERENCE SEMICONDUCTOR ELECTRONICS

2016 PROCEEDING NON-INDEX CO-AUTHOR

42. AL DOPED ZNO COATED FIBER OPTIC FOR ULTRAVIOLET AND ACETONE SENSING

ADVANCED SCIENCE LETTERS

2013 JOURNAL SCOPUS MAIN AUTHOR

43. AN ULTRAVIOLET DETECTOR BASED ON AL-DOPED ZNO THIN FILMS PREPARED BY SOL-GEL METHOD

ADVANCED SCIENCE LETTERS

2013 JOURNAL SCOPUS MAIN AUTHOR

44. EFFECTS OF ULTRAVIOLET ILLUMINATION ON SOL-GEL SYNTHESIZED AL DOPED ZNO THIN FILMS.

ADVANCED SCIENCE LETTERS

2013 JOURNAL SCOPUS MAIN AUTHOR

45. OPTICAL VOC SENSING APPLICATION OF AL DOPED ZNO COATED FIBER OPTICS.

OPTOELECTRONICS AND ADVANCED MATERIALS, RAPID COMMUNICATIONS

2013 JOURNAL WOS MAIN AUTHOR

46. NANOCRYSTALLINE ALUMINIUM DOPED ZINC OXIDE COATED FIBER OPTIC FOR ULTRAVIOLET DETECTION

JOURNAL NONLINEAR OPTICAL PHYSICS AND MATERIALS

2013 JOURNAL WOS MAIN AUTHOR

47. INFLUENCE OF DOPING CONCENTRATIONS OF SOL GEL DERIVED ZN1-XMNXO THIN FILMS

INTERNATIONAL CONFERENCE ON APPLIED MATERIALS AND ELECTRONICS ENGINEERING (AMEE 2012)

2012 PROCEEDING NON-INDEX MAIN AUTHOR

48. STRUCTURAL AND OPTICAL PROPERTIES OF NANOSTRUCTURED ZN1-XMNXO THIN FILMS

INTERNATIONAL CONFERENCE ON APPLIED MATERIALS AND ELECTRONICS ENGINEERING (AMEE 2012)

2012 PROCEEDING NON-INDEX MAIN AUTHOR

49. AL, IN AND SN DOPED ZNO COATED FIBER OPTIC FOR VOC SENSING APPLICATIONS

THE 3RD ISESCO INTERNATIONAL WORKSHOP AND CONFERENCE ON NANOTECHNOLOGY

2012 PROCEEDING NON-INDEX MAIN AUTHOR

50. ULTRAVIOLET SENSING BY AL-DOPED ZNO THIN FILMS

THE INTERNATIONAL CONFERENCE FOR NANOMATERIALS SYNTHESIS AND CHARACTERIZATION 2011 (INSC 2011)

2011 PROCEEDING NON-INDEX MAIN AUTHOR

51. EFFECTS OF MN DOPING CONCENTRATIONS ON PROPERTIES OF ZNO THIN FILMS

IEEE REGIONAL SYMPOSIUM ON MICRO AND NANOELECTRONICS (RSM),

2011 PROCEEDING NON-INDEX MAIN AUTHOR

52. EFFECT OF DOPING CONCENTRATIONS ON THE PROPERTIES OF MN-DOPED ZNO NANOSTRUCTURED THIN FILMS

THE 4TH ASIAN PHYSICS SYMPOSIUM-AN INTERNATIONAL SYMPOSIUM. AIP CONFERENCE PROCEEDINGS

2010 PROCEEDING NON-INDEX MAIN AUTHOR

PUBLICATION

53. EFFECT OF MN DOPING ON THE STRUCTURAL AND OPTICAL PROPERTIES OF ZNO FILMS

IEEE INTERNATIONAL CONFERENCE ON SEMICONDUCTOR ELECTRONICS

2010

PROCEEDING

NON-INDEX

MAIN AUTHOR

54. TUNING THE BANDGAP OF $\text{Zn}_{1-x}\text{Mn}_x\text{O}$ THIN FILMS PREPARED BY THE SOL-GEL METHOD

2010 INTERNATIONAL CONFERENCE ON PHOTONICS (ICP)

2010

PROCEEDING

NON-INDEX

MAIN AUTHOR

CONSULTATION

1. PERUNDINGAN FIBER OPTIK

INSTITUT LATIHAN PERINDUSTRIAN (ILP) PEDAS

 University

AWARDS/RECOGNITION

1. ENHANCING ANTIBACTERIAL PROPERTIES USING SILVER DOPED ZINC OXIDE NANOPARTICLES

INNOVATION BANK CHALLENGE 2025

2025 ANTARABANGSA SILVER

2. FIBER OPTIC SENSOR FOR SOIL MOISTURE DETECTION

INNOVATION BANK CHALLENGE 2025

2025 ANTARABANGSA BRONZE

3. HUMIDITY SENSOR USING AGAROSE-COATED POLYMER OPTICAL FIBER BASED ON TWISTED FIBER STRUCTURE

INNOVATION BANK CHALLENGE 2025

2025 ANTARABANGSA BRONZE

4. DOES THE MOON SHINE OR REFLECT? A QURANIC AND SCIENTIFIC EXPLORATION OF LUNAR LIGHT

10TH INTERNATIONAL CONFERENCE ON QURAN AS FOUNDATION OF CIVILIZATION (SWAT 2025)

2025 ANTARABANGSA BEST PAPER AWARD

5. GO/ZNO NANOCOMPOSITE COATED PLASTIC OPTICAL FIBER FOR COPPER ION DETECTION IN DRINKING WATER

4TH INNOVATION BANK CHALLENGE 2024 (IBC 2024)

2024 UNIVERSITY SILVER

6. IOT ENHANCED SMART SENSORS: BRING OBSERVATORY CLOSER TO HOME

4TH INNOVATION BANK CHALLENGE 2024 (IBC 2024)

2024 UNIVERSITY GOLD

7. GRAPHENE OXIDE COATED OPTICAL FIBER FOR HONEY ADULTERATION DETECTION

SCEINCE AND TECHNOLOGY RESEARCH EXPO (SCITEX)

2024 UNIVERSITY GOLD

8. FLEXIBLE MICRO STRIP PATCH ANTENNA SENSOR FOR POSTURE MONITORING

SCEINCE AND TECHNOLOGY RESEARCH EXPO (SCITEX)

2024 UNIVERSITY BRONZE

9. ANUGERAH PERKHIDMATAN CEMERLANG 2022

2023 UNIVERSITY

10. STAF CONTOH BULAN FEB 2023

2023 OTHERS

11. SMART GREEN: AUTOMATIC GARDEN MONITORING WITH SMART FILM USING IOT

International Expo of Innovation Product and System Design (INVIDE) 2023

2023 ANTARABANGSA BRONZE

12. PHOTOCATALYTIC DYE DEGRADATION OF ZNO USING ALOE VERA LEAF EXTRACT

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

2023 UNIVERSITY GOLD

13. AUNPS-GO BASED FIBER OPTICS LOCALIZED SPR SENSOR FOR MUSTA?MAL WATER IDENTIFICATION

4th International Conference on Applied Photonics and Electronics (InCAPE 2023)

2023 ANTARABANGSA BEST PAPER AWARD

14. GRAPHENE-BASED HYBRID SENSOR FOR THE DETECTION OF CANCER CELLS USING K-SPR TECHNOLOGY

2023 IEEE RSM Conference

2023 ANTARABANGSA BEST PAPER AWARD

AWARDS/RECOGNITION

15. MASKYLINK: DISCOVERING ASTRONOMY PHENOMENA

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

2023 UNIVERSITY GOLD

16. PLASMONIC FBG-BASED HONEY QUALITY TESTER

MALAYSIA TECHNOLOGY EXPO 2022

2022 ANTARABANGSA GOLD

17. PLASMONIC FBG-BASED HONEY QUALITY TESTER

Persidangan dan Ekspo Ciptaan Institusi Pengajian Tinggi Antarabangsa (PECIPTA22)

2022 ANTARABANGSA GOLD

18. 3D HALOGRAM FOR EARLY CHILDHOOD EDUCATION

MINGGU PENYELIDIKAN & INOVASI 2021 (MPI'21)

2021 KEBANGSAAN GOLD

19. 3D HALOGRAM FOR EARLY CHILDHOOD EDUCATION

INTERNATIONAL INNOVATION ARSVOT MALAYSIA (IAM 2021)

2021 ANTARABANGSA SILVER

20. ANUGERAH PENYELIDIKAN TERBAIK

2020 UNIVERSITY

21. STAFF OF THE MONTH

2020 UNIVERSITY

22. ACADEMIC ADVISOR

PANEL PENILAI PEMBENTANGAN PENYELIDIKAN (QUALIFYING TEST) PELAJAR SISWAZAH FAKULTI SAINS DAN TEKNOLOGI

2020 UNIVERSITY

23. ACADEMIC ADVISOR

PANEL PENILAI LAPORAN KEMAJUAN PENYELIDIKAN FST

2020 UNIVERSITY

24. ACADEMIC ADVISOR

INNOVATION AND TECHNOLOGY COMPETITION 2019

2019 UNIVERSITY

25. ACADEMIC ADVISOR

KEMENTERIAN PENDIDIKAN MALAYSIA

2019 NATIONAL

26. O-WHEEL

EDUINATION CARNIVAL: TRANSFORMATION TOWARDS ENTREPRENEURIAL MINDSET PERINGKAT KEBANGSAAN

2019 KEBANGSAAN GOLD

27. AUTOMATED MINI GREENHOUSE CONTROLLER WITH ARDUINO

MELAKA INTERNATIONAL INTELLECTUAL EXPOSITION 2019

2019 ANTARABANGSA CERTIFICATE OF APPRECIATION

28. AUTOMATED MINI GREEN HOUSE CONTROLLER WITH ARDUINO

MELAKA INTERNATIONAL INTELLECTUAL EXPOSITION (MIIEx 2019)

2019 ANTARABANGSA BRONZE

AWARDS/RECOGNITION

29. ANUGERAH PERKHIDMATAN CEMERLANG 2017

2018

UNIVERSITY

30. ACADEMIC ADVISOR

REGIONAL CONFERENCE ON SOLID STATE SCIENCE AND TECHNOLOGY 2018

2018

NATIONAL

31. ACADEMIC ADVISOR

QUALIFYING TEST 2017 PELAJAR PASCASISWAZAH FST

2017

UNIVERSITY

32. VISITING SCHOLAR

FAKULTI KEJURUTERAAN DAN ALAM BINA, UNIVERSITI KEBANGSAAN MALAYSIA

2016

UNIVERSITY

33. ACADEMIC ADVISOR

SEMINAR SISWAZAH FAKULTI SAINS DAN TEKNOLOGI 2016 (KOSIST'16)

2016

UNIVERSITY