Profile Image

DR. SHARMA RAO A/L BALAKRISHNAN

PENSYARAH UNIVERSITI DS13

CONTACT

PHONE
06-7988504

E-MAIL
sharma@usim.edu.my

FACULTY
Fakulti Kejuruteraan Dan Alam Bina

SUPERVISION

	COMPLETED	ONGOING
PhD	1	1
Master	1	1

AREAS OF EXPERTISE

- Microelectronics
- Nanoelectronics
- Semiconductor Materials And Devices Physics

ACADEMIC QUALIFICATION

2016 **PhD** - Kejuruteraan Nanoelektronik

2012 **Bachelor** - Kejuruteraan Mikroelektronik

RESEARCH

1. **ANOMALY DETECTION IN WATER QUALITY PARAMETERS AND POLLUTION PREDICTION BASED ON REGRESSION AND RANDOM FOREST THEORY**
   2026 | GERAN SEPADAN ANTARABANGSA | ON GOING | CO-RESEARCHER

2. **UAV-BASED AUTOMATED OIL PALM TREE DETECTION AND COUNTING**
   2025 | GERAN PENYELIDIKAN INDUSTRI | ON GOING | CO-RESEARCHER

3. **DEVELOPMENT OF SALIVA-BASED BIOSENSOR DEVICE FOR RAPID SCREENING OF PERIODONTAL CONDITIONS**
   2023 | GERAN KPT | ON GOING | CO-RESEARCHER

4. **DEVELOPMENT OF MOBILE APPLICATION FOR WOMEN'S "PRELOVED" BUSINESS PLATFORM: FASHION ARCHADE (FACADE)**
   2022 | GERAN PENYELIDIKAN AGENSI KERAJAAN | COMPLETED | CO-RESEARCHER

5. **DEVELOPMENT OF LASER ILLUMINATION WARNING SYSTEM BASED ON LASER PHOTODIODE AND DETECTION TECHNOLOGY**
   2022 | GERAN PENYELIDIKAN INDUSTRI | COMPLETED | CO-RESEARCHER

RESEARCH

6. NANOHYBRID BASED MULTIPLEXED NANO-INTERDIGITATED ELECTRODE ARRAY (NIDEA) BIOSENSOR FOR CANCER RELATED DISEASE

2020 | GERAN KPT | ON GOING | MAIN RESEARCHER

7. A NEW PARAMETRIC MODULE OF THERMAL AND LIGHTING BASED ON SOLAR CELL FACADE SYSTEM IN SCHOOL

2020 | GERAN KPT | COMPLETED | CO-RESEARCHER

8. MODELLING OF QUANTUM BASED TUNNEL DIODE FOR THZ MEDICAL IMAGING

2019 | GERAN PENYELIDIKAN USIM | COMPLETED | CO-RESEARCHER

9. INVESTIGATING LIGHT SCATTERING ON PROPERTIES OF RANDOM LASERS BASED ON SCATTERING PROBABILITY THEORY FOR POTENTIAL USE IN MEDICAL AND BIOSENSING APPLICATIONS

2019 | GERAN KPT | COMPLETED | CO-RESEARCHER

10. ULTRA-HIGH SENSITIVE BIOANALYTICAL DETERMINATION OF LARD USING NANOHYBRID BIOSENSING APPROACH AS A TOOL FOR HALAL PRODUCT INVESTIGATION

2018 | GERAN PENYELIDIKAN KHAS | ON GOING | MAIN RESEARCHER

11. ANALYZING PERFORMANCE OF RANDOM LASERS AS THE OPTICAL DEVICES FOR BIOSENSING AND MEDICAL APPLICATIONS

2018 | GERAN PENYELIDIKAN USIM | COMPLETED | CO-RESEARCHER

12. THE STUDY OF DRUNKEN ABNORMAL HUMAN GAIT RECOGNITION USING ACCELEROMETERS IN MOBILE APPLICATION

2018 | GERAN PENYELIDIKAN USIM | COMPLETED | CO-RESEARCHER

PUBLICATION

1. DEVELOPMENT OF A PH- SENSOR BASED MONITORING SYSTEM FOR COCOA POD WAX EXTRACTION IN COCOA FARMS

2025 INTERNATIONAL CONFERENCE ON SCIENCE, BUILT ENVIRONMENT, AND ENGINEERING (ICOSBEE 2025)

2025 | PROCEEDING | NON-INDEX | CORRESPONDING AUTHOR

2. DETECTION OF CONTAMINATION IN WATER USING SPECTROSCOPY

ADVANCEMENT IN ENGINEERING AND TECHNOLOGY

2024 | CHAPTER IN BOOK | CO-AUTHOR

3. A REVIEW ON CURRENT DIAGNOSTIC TOOLS AND POTENTIAL OPTICAL ABSORPTION SPECTROSCOPY FOR HFMD DETECTION

ANALYTICAL BIOCHEMISTRY

2023 | JOURNAL | ERA | CO-AUTHOR

4. DURIAN DETECTION AND COUNTING SYSTEM USING DEEP LEARNING

JOURNAL OF ENGINEERING SCIENCE AND TECHNOLOGY

2023 | JOURNAL | ERA | CO-AUTHOR

PUBLICATION

5. PRINCIPLES, CHARACTERISTICS AND APPLICATION OF OPTICAL FIBRE IN TELECOMMUNICATION AND SENSORY SYSTEM

TECHNOLOGIES IN SCIENCE AND ENGINEERING: A MULTIDISCIPLINARY APPROACH

2023 CHAPTER IN BOOK CO-AUTHOR

6. THE SMART GRASS-CUTTING ROBOT WITH UPCYCLING SOLAR MODULE

TECHNOLOGIES IN SCIENCE AND ENGINEERING: A MULTIDISCIPLINARY APPROACH

2023 CHAPTER IN BOOK CO-AUTHOR

7. OPTICAL SPECTROSCOPY POTENTIAL APPROACH FOR EARLY DISEASE DETECTION: HFMD CASE

TECHNOLOGIES IN SCIENCE AND ENGINEERING: A MULTIDISCIPLINARY APPROACH

2023 CHAPTER IN BOOK CO-AUTHOR

8. SMART AUTOMATIC COOLING SYSTEM WITH REDUCED HUMIDITY EFFECT FOR PET HOUSE DURING COVID-19 CRISIS

ASM SCIENCE JOURNAL

2022 JOURNAL SCOPUS CO-AUTHOR

9. A REVIEW ON WATER QUALITY MONITORING METHODS BASED ON ELECTRONICS AND OPTICAL SENSING

JOURNAL OF ADVANCED RESEARCH IN APPLIED SCIENCES AND ENGINEERING TECHNOLOGY

2022 JOURNAL OTHER DATABASE CORRESPONDING AUTHOR

10. A STUDY ON THE SELF-SUSTAINING SOLAR MODULE BY UTILIZING SOLAR CELL FROM NON-DEGRADABLE WASTE

REKAYASA HIJAU: JURNAL TEKNOLOGI RAMAH LINGKUNGAN

2021 JOURNAL OTHER DATABASE CO-AUTHOR

11. ANALYSIS ON CLARITY OF RUBIES GEMSTONES USING CHARGE-COUPLED DEVICE (CCD)

JOURNAL OF TOMOGRAPHY SYSTEM & SENSORS APPLICATION

2021 JOURNAL OTHER DATABASE CO-AUTHOR

12. SIMULATION STUDY ON CCD TOMOGRAPHY SYSTEM FOR RUBY STONE OPTICAL PROPERTIES

JOURNAL OF TOMOGRAPHY SYSTEM & SENSORS APPLICATION

2021 JOURNAL OTHER DATABASE CO-AUTHOR

13. INVESTIGATING THE QUALITY OF MILK USING SPECTROMETRY TECHNIQUE AND SCATTERING THEORY

ENGINEERING, TECHNOLOGY & APPLIED SCIENCE RESEARCH

2021 JOURNAL WOS CO-AUTHOR

14. A STUDY ON EARLY DETECTION OF SEWER PIPELINE BLOCKAGE USING CCD TOMOGRAPHY APPROACH

3RD INTERNATIONAL CONFERENCE ON CIVIL AND ENVIRONMENTAL ENGINEERING 18 NOVEMBER 2020, MALAYSIA

2021 PROCEEDING NON-INDEX CO-AUTHOR

15. STUDY ON OPTICAL PROPERTIES OF MILK BASED ON LIGHT PROPAGATION THEORY

INTERNATIONAL CONFERENCE ON BIOMEDICAL ENGINEERING (ICOBE 2021) 14, 15 SEPTEMBER 2021, UNIMAP, MALAYSIA (VIRTUAL)

2021 PROCEEDING NON-INDEX CO-AUTHOR

PUBLICATION

16. ELECTROCHEMICAL DETECTION OF TRIBUTYRIN USING PRUSSIAN BLUE FUNCTIONALIZED GLASSY CARBON ELECTRODE

2021 IEEE INTERNATIONAL CONFERENCE ON SENSORS AND NANOTECHNOLOGY (SENNANO)

2021 | PROCEEDING | NON-INDEX | CORRESPONDING AUTHOR

17. ELECTROCHEMICAL DETECTION OF TRIBUTYRIN USING GOLD NANOPARTICLE FUNCTIONALIZED SCREEN-PRINTED ELECTRODE

2021 IEEE 19TH STUDENT CONFERENCE ON RESEARCH AND DEVELOPMENT (SCORED)

2021 | PROCEEDING | NON-INDEX | CORRESPONDING AUTHOR

18. RADIO OVER FIBRE FREE SPACE OPTICS (ROFSO) SYSTEM

ADVANCES IN SUSTAINABLE LIVING: ENGINEERING & TECHNOLOGY

2021 | CHAPTER IN BOOK | CO-AUTHOR

19. EMOTION DETECTION BASED ON AUDIO/VOICE SIGNAL FOR AUTISM SPECTRUM DISORDER (ASD) USING CORRELATION METHOD

ADVANCES IN SUSTAINABLE LIVING: ENGINEERING & TECHNOLOGY

2021 | CHAPTER IN BOOK | CO-AUTHOR

20. A STUDY ON MALAYSIA ATMOSPHERIC EFFECT ON RADIO OVER FREE SPACE OPTIC THROUGH RADIO FREQUENCY SIGNAL AND LIGHT PROPAGATION IN FIBER FOR FUTURE COMMUNICATION DEVELOPMENT

AIP CONFERENCE PROCEEDINGS

2020 | JOURNAL | SCOPUS | CO-AUTHOR

21. COMPARATIVE ANALYSIS ON DIELECTRIC GOLD AND ALUMINIUM TRIANGULAR JUNCTIONS: IMPACT OF IONIC STRENGTH AND BACKGROUND ELECTROLYTE BY PH VARIATIONS

SCIENTIFIC REPORTS

2020 | JOURNAL | SCOPUS AND ERA | MAIN AUTHOR

22. A STUDY OF OBJECT TRANSPARENCY VIA CHARGE-COUPLED DEVICE MATHEMATICAL MODELLING ASSESSMENT

MALAYSIAN JOURNAL OF SCIENCE HEALTH & TECHNOLOGY

2020 | JOURNAL | OTHERS DATABASE | CO-AUTHOR

23. A STUDY OF OBJECT TRANSPARENCY VIA CHARGE-COUPLED DEVICE MATHEMATICAL MODELLING ASSESSMENT

MALAYSIAN JOURNAL OF SCIENCE HEALTH & TECHNOLOGY

2020 | JOURNAL | OTHERS DATABASE | CO-AUTHOR

24. INVESTIGATING LIGHT PROPAGATION IN FULL AND SKIMMED MILK BASED ON SPECTROSCOPY AND MONTE CARLO ANALYSIS

JOURNAL OF ENGINEERING AND APPLIED SCIENCE

2020 | JOURNAL | SCOPUS | CO-AUTHOR

25. PRINCIPLES AND CHARACTERISTICS OF RANDOM LASERS AND THEIR APPLICATIONS IN MEDICAL, BIOIMAGING AND BIOSENSING

AIP CONFERENCE PROCEEDINGS

2020 | JOURNAL | SCOPUS | CO-AUTHOR

PUBLICATION

26. GOLD-NANOROD ENHANCES DIELECTRIC VOLTAMMETRY DETECTION OF C-REACTIVE PROTEIN: A PREDICTIVE STRATEGY FOR CARDIAC FAILURE

BIOSENSORS AND BIOELECTRONICS

2019 JOURNAL WOS CO-AUTHOR

27. PERFORMANCE OUTCOMES IN LEARNING ADDITIONAL MATHEMATICS BY GREY THEORY APPROACH

JOURNAL OF ENGINEERING AND APPLIED SCIENCES

2019 JOURNAL SCOPUS CO-AUTHOR

28. GENERATION OF ZINC OXIDE-GOLD TEXTURED JANUS NANOWIRE FOR BIO-RECOGNITION

INTERNATIONAL JOURNAL OF CARDIOLOGY

2019 JOURNAL ERA CO-AUTHOR

29. PLASMONIC EFFECT ON PERFORMANCE OF RANDOM LASERS

ADVANCED SCIENCE LETTERS

2018 JOURNAL SCOPUS CO-AUTHOR

30. AUTOMATED FEATURE DESCRIPTION OF RENAL SIZE USING IMAGE PROCESSING

INTERNATIONAL JOURNAL OF INTEGRATED ENGINEERING

2018 JOURNAL SCOPUS CO-AUTHOR

31. DPSK OTDM DEMULTIPLEXING USING FLEXIBLE PULSE CLOCK FROM RAMAN AMPLIFIER-SOLITON COMPRESSOR

ADVANCED SCIENCE LETTERS

2018 JOURNAL SCOPUS CO-AUTHOR

32. DEVELOPMENT OF A SOLAR HOME IN MIDDLE EAST: A REVIEW

INTERNATIONAL JOURNAL OF ADVANCES IN MECHANICAL AND CIVIL ENGINEERING

2018 JOURNAL SCOPUS CO-AUTHOR

33. AUTOMATIC FEATURE DESCRIPTION OF ENDOMETRIOMA IN ULTRASONIC IMAGES OF THE OVARY

INTERNATIONAL JOURNAL OF INTEGRATED ENGINEERING

2018 JOURNAL SCOPUS CO-AUTHOR

34. AUTOMATED FEATURE DESCRIPTION OF FOLLICLE SIZE IN ASSISTED REPRODUCTIVE TREATMENT

INTERNATIONAL JOURNAL OF INTEGRATED ENGINEERING

2018 JOURNAL SCOPUS CO-AUTHOR

35. OPTICAL TOMOGRAPHY SYSTEM USING CHARGE-COUPLED DEVICE FOR TRANSPARENT OBJECT DETECTION

INTERNATIONAL JOURNAL OF INTEGRATED ENGINEERING

2018 JOURNAL SCOPUS CO-AUTHOR

36. DESIGN AND FABRICATION OF POLYDIMETHYLSILOXANE BASED LOW COST MICROFLUIDIC FOR ULTRA-FAST DIAGNOSTIC APPLICATIONS

INTERNATIONAL JOURNAL OF INTEGRATED ENGINEERING

2018 JOURNAL SCOPUS MAIN AUTHOR

PUBLICATION

37. SMART WATER TURBIDITY LEVEL MEASUREMENT SYSTEM WITH WIRELESS DATA TRANSMISSION BASED ON ARDUINO HARDWARE PLATFORM

SYMPOSIUM ON INSTRUMENTATION AND SENSING TECHNOLOGY (SOINSET 2018)

2018 PROCEEDING NON-INDEX MAIN AUTHOR

38. RADIO OVER FIBER UNDER MALAYSIA ATMOSPHERIC USING OPTISYSTEM SIMULATOR FOR NEXT GENERATION COMMUNICATION

SEMINAR ANTARABANGASA ISLAM DAN SAINS (SAIS) 2018

2018 PROCEEDING NON-INDEX CO-AUTHOR

39. APTAMER-BASED DETERMINATION OF ATP BY USING A FUNCTIONALIZED IMPEDIMETRIC NANOSENSOR AND MEDIATION BY A TRIANGULAR JUNCTION TRANSDUCER

MICROCHIMICA ACTA

2017 JOURNAL WOS CO-AUTHOR

40. APTAMER-BASED IMPEDIMETRIC DETERMINATION OF THE HUMAN BLOOD CLOTTING FACTOR IX IN SERUM USING AN INTERDIGITATED ELECTRODE MODIFIED WITH A ZNO NANOLAYER

MICROCHIMICA ACTA

2017 JOURNAL WOS CO-AUTHOR

41. VOLTAMMETRIC IMMUNOASSAY FOR THE HUMAN BLOOD CLOTTING FACTOR IX BY USING NANOGAPPED DIELECTRODE JUNCTIONS MODIFIED WITH GOLD NANOPARTICLE-CONJUGATED ANTIBODY

MICROCHIMICA ACTA

2017 JOURNAL WOS CO-AUTHOR

42. DESIGN AND FABRICATION OF POLYDIMETHYLSILOXANE BASED LOW COST MICROFLUIDIC FOR ULTRA-FAST DIAGNOSTIC APPLICATIONS

2ND INTERNATIONAL WORKSHOP ON COMPUTER TOMOGRAPHY & IMAGING TECHNOLOGY

2017 PROCEEDING NON-INDEX MAIN AUTHOR

43. PLASMONIC EFFECT ON PERFORMANCE OF RANDOM LASERS

INTERNATIONAL CONFERENCE ON COMPUTER AND NETWORK APPLICATIONS (ICCNA2017)

2017 PROCEEDING NON-INDEX CO-AUTHOR

44. DEVELOPMENT OF A SOLAR HOME IN MIDDLE EAST: A REVIEW

INTERNATIONAL CONFERENCE ON INNOVATIVE ENGINEERING TECHNOLOGIES (ICIET)

2017 PROCEEDING NON-INDEX CO-AUTHOR

45. AUTOMATED FEATURE DESCRIPTION OF RENAL SIZE USING IMAGE PROCESSING

2ND INTERNATIONAL WORKSHOP ON COMPUTER TOMOGRAPHY & IMAGING TECHNOLOGY

2017 PROCEEDING NON-INDEX CO-AUTHOR

46. AUTOMATIC FEATURE DESCRIPTION OF ENDOMETRIOMA IN ULTRASONIC IMAGES OF THE OVARY

2ND INTERNATIONAL WORKSHOP ON COMPUTER TOMOGRAPHY & IMAGING TECHNOLOGY

2017 PROCEEDING NON-INDEX CO-AUTHOR

PUBLICATION

47. AUTOMATED FEATURE DESCRIPTION OF FOLLICLE SIZE IN ASSISTED REPRODUCTIVE TREATMENT

2ND INTERNATIONAL WORKSHOP ON COMPUTER TOMOGRAPHY & IMAGING TECHNOLOGY

2017 PROCEEDING NON-INDEX CO-AUTHOR

48. OPTICAL TOMOGRAPHY SYSTEM USING CHARGE-COUPLED DEVICE FOR TRANSPARENT OBJECT DETECTION

2ND INTERNATIONAL WORKSHOP ON COMPUTER TOMOGRAPHY & IMAGING TECHNOLOGY

2017 PROCEEDING NON-INDEX CO-AUTHOR

49. DPSK OTDM DEMULTIPLEXING USING FLEXIBLE PULSE CLOCK FROM RAMAN AMPLI?ER-SOLITON COMPRESSOR

INTERNATIONAL CONFERENCE ON COMPUTER AND NETWORK APPLICATIONS (ICCNA2017)

2017 PROCEEDING NON-INDEX CO-AUTHOR

50. ISLAMIC PERSPECTIVE ON SUSTAINABILITY IN JAPAN

ADVANCES IN SUSTAINABLE LIVING: BUILT ENVIRONMENT AND THE TECHNOLOGY; ISLAMIC PERSPECTIVE ON SUSTAINABILITY IN JAPAN

2017 CHAPTER IN BOOK CO-AUTHOR & CO-EDITOR

51. ISLAMIC PERSPECTIVE ON RECYCLING IN JAPAN

ADVANCES IN SUSTAINABLE LIVING: BUILT ENVIRONMENT AND THE TECHNOLOGY; ISLAMIC PERSPECTIVE ON RECYCLING IN JAPAN

2017 CHAPTER IN BOOK CO-AUTHOR & CO-EDITOR

52. DEVICES IN OPTICS, TOMOGRAPHY AND BIOSENSING

ADVANCES IN SUSTAINABLE LIVING: BUILT ENVIRONMENT AND THE TECHNOLOGY; DEVICES IN OPTICS, TOMOGRAPHY AND BIOSENSING

2017 CHAPTER IN BOOK CO-AUTHOR & CO-EDITOR

53. CHARACTERIZATION OF GOLD-SPUTTERED ZINC OXIDE NANORODS?A POTENTIAL HYBRID MATERIAL

NANOSCALE RESEARCH LETTERS

2016 JOURNAL WOS CO-AUTHOR

54. POLYSILICON NANOGAP LAB-ON-CHIP FACILITATES MULTIPLEX ANALYSES WITH SINGLE ANALYTE

BIOSENSORS AND BIOELECTRONICS

2016 JOURNAL WOS MAIN AUTHOR

55. A NEW NANO-WORM STRUCTURE FROM GOLD-NANOPARTICLE MEDIATED RANDOM CURVING OF ZINC OXIDE NANORODS

BIOSENSORS AND BIOELECTRONICS

2016 JOURNAL WOS CO-AUTHOR

56. OPTICAL MEASUREMENTS ON TAILORED ZINC OXIDE THIN FILMS UNDER OPTIMAL

OPTIK-INTERNATIONAL JOURNAL FOR LIGHT AND ELECTRON OPTICS

2016 JOURNAL WOS CO-AUTHOR

57. FABRICATION OF INTERDIGITATED HIGH-PERFORMANCE ZINC OXIDE NANOWIRE MODIFIED ELECTRODES FOR GLUCOSE SENSING

ANALYTICA CHIMICA ACTA

2016 JOURNAL WOS CO-AUTHOR

PUBLICATION

58. NANOGAPPED IMPEDIMETRIC IMMUNOSENSOR FOR THE DETECTION OF 16 KDA HEAT SHOCK PROTEIN AGAINST MYCOBACTERIUM TUBERCULOSIS

MICROCHIMICA ACTA

2016 JOURNAL WOS CO-AUTHOR

59. ?SPOTTED NANOFLOWERS?: GOLD-SEEDED ZINC OXIDE NANOHYBRID FOR SELECTIVE BIO-CAPTURE

SCIENTIFIC REPORTS

2015 JOURNAL WOS CO-AUTHOR

60. LOW TEMPERATURE ANNEALED ZINC OXIDE NANOSTRUCTURED THIN FILM-BASED TRANSDUCERS: CHARACTERIZATION FOR SENSING APPLICATIONS

PLOS ONE

2015 JOURNAL WOS CO-AUTHOR

61. A POINT-OF-CARE IMMUNOSENSOR FOR HUMAN CHORIONIC GONADOTROPIN IN CLINICAL URINE SAMPLES USING A CUNEATED POLYSILICON NANOGAP LAB-ON-CHIP

PLOS ONE

2015 JOURNAL WOS MAIN AUTHOR

62. THICKNESS DEPENDENT NANOSTRUCTURAL, MORPHOLOGICAL, OPTICAL AND IMPEDOMETRIC ANALYSES OF ZINC OXIDE-GOLD HYBRIDS: NANOPARTICLE TO THIN FILM

PLOS ONE

2015 JOURNAL WOS CO-AUTHOR

63. POLYSILICON NANOGAP LAB-ON-CHIP FACILITATES MULTIPLEX ANALYSES WITH SINGLE ANALYTE

4TH INTERNATIONAL CONFERENCE ON BIO-SENSING TECHNOLOGY

2015 PROCEEDING NON-INDEX MAIN AUTHOR

64. DEVELOPMENT OF HIGHLY SENSITIVE POLYSILICON NANOGAP WITH APTES/GOX BASED LAB-ON-CHIP BIOSENSOR TO DETERMINE LOW LEVELS OF SALIVARY GLUCOSE

SENSORS AND ACTUATORS A: PHYSICAL

2014 JOURNAL WOS MAIN AUTHOR

65. CONVENTIONAL PHOTOLITHOGRAPHY AND PROCESS OPTIMIZATION OF PATTERN-SIZE EXPANSION TECHNIQUE FOR NANOGAP BIOSENSOR FABRICATION

INTERNATIONAL CONFERENCE ON NANOSCIENCE AND NANOTECHNOLOGY 2013 (NANO-SCITECH 2013)

2013 PROCEEDING NON-INDEX MAIN AUTHOR

66. PATTERN TRANSFER OF 1?M SIZED MICROGAP AND MICROBRIDGE ELECTRODE FOR APPLICATION IN BIOMEDICAL NANO-DIAGNOSTICS

JOINT INTERNATIONAL CONFERENCE ON NANOSCIENCE, ENGINEERING AND MANAGEMENT (BOND21)

2013 PROCEEDING NON-INDEX MAIN AUTHOR

67. THIN FILM THICKNESS AND UNIFORMITY MEASUREMENT FOR LAB-ON-CHIP BASED NANOELECTRODE BIOSENSOR DEVELOPMENT

INTERNATIONAL CONFERENCE ON NANOSCIENCE AND NANOTECHNOLOGY 2013 (NANO-SCITECH 2013)

2013 PROCEEDING NON-INDEX MAIN AUTHOR

PUBLICATION

68. MICROFLUIDIC PHOTOMASK DESIGN USING CAD SOFTWARE FOR APPLICATION IN LAB-ON-CHIP BIOMEDICAL NANODIAGNOSTICS

2ND INTERNATIONAL CONFERENCE ON SUSTAINABLE MATERIALS (ICOSM 2013)

2013 PROCEEDING NON-INDEX MAIN AUTHOR

69. PHOTORESIST MICROBRIDGE PATTERN OPTIMIZATION AT 1?M USING CONVENTIONAL PHOTOLITHOGRAPHY TECHNIQUE

RSM 2013 IEEE REGIONAL SYMPOSIUM ON MICRO AND NANOELECTRONICS

2013 PROCEEDING NON-INDEX MAIN AUTHOR

70. NANOELECTRODE CHROME PHOTOMASK DESIGN AND SPECIFICATION FOR BIOSENSOR FABRICATION

2ND INTERNATIONAL CONFERENCE ON SUSTAINABLE MATERIALS (ICOSM 2013)

2013 PROCEEDING NON-INDEX MAIN AUTHOR

71. QUANTITATIVE MEASUREMENT OF SUGAR CONCENTRATION USING IN HOUSE FABRICATED MICROGAP BIOSENSOR

IEEE REGIONAL SYMPOSIUM ON MICRO & NANOELECTRONICS

2013 PROCEEDING NON-INDEX MAIN AUTHOR

72. PH SENSING USING IN HOUSE FABRICATED POLYSILICON NANOELECTRODE BASED TRANSDUCER

2012 IEEE EMBS CONFERENCE ON BIOMEDICAL ENGINEERING AND SCIENCES (IECBES 2012)

2012 PROCEEDING NON-INDEX MAIN AUTHOR

73. CARBON NANOTUBES-BASED ELECTROCHEMICAL BIOSENSORS

2012 IEEE EMBS CONFERENCE ON BIOMEDICAL ENGINEERING AND SCIENCES (IECBES 2012)

2012 PROCEEDING NON-INDEX MAIN AUTHOR

AWARDS/RECOGNITION

1. PHOTOACOUSTIC TOMOGRAPHY CONCEPT FOR EARLY DETECTION OF PREMOLAR CARIES

INNOVATION BANK CHALLENGE 2025

2025 ANTARABANGSA SILVER

2. ENZYMATIC COCOA POD WAX EXTRACTION MONITORING DEVICE FOR COCOA FARMS

4TH INNOVATION BANK CHALLENGE 2024 (IBC 2024)

2024 UNIVERSITI SILVER

3. NANOHYBRID BASED MULTIPLEXED NANO-INTERDIGITATED ELECTRODE ARRAY (NIDEA) BIOSENSOR FOR CANCER RELATED DISEASE

INNOVATION BANK CHALLENGE 2023 (IBC2023)

2023 UNIVERSITI GOLD

4. THE POTENTIAL OF .... TOMOGRAPHY (PAT) TECHNIQUE FOR DENTAL IMAGING..

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

2023 UNIVERSITI BRONZE

AWARDS/RECOGNITION

5. STAF CONTOH BULANAN SEPT 2022

2022 UNIVERSITY

6. RUBBER TREE TRUNK HUMIDITY INSPECTOR

PERTANDINGAN REKACIPTA INOVASI INTERNASIONAL & NASIONAL 2022 (PRiIN 2022)

2022 ANTARABANGSA SILVER

7. WATER QUALITY MONITORING USING CPS APPROACH

INNOVATION BANK CHALLENGE (IBC 2021)

2021 UNIVERSITI BRONZE

8. AWARD OF EXCELLENCE IN FINAL YEAR PROJECT (BEST FINAL YEAR PROJECT IN THE FIELD OF MICRO AND NANOELECTRONICS DEVICES)

2020 NATIONAL

9. AUTOMATED MOTION DETECTION SECURITY SYSTEM NOTIFIER USING RASPBERRY PI WITH TELEGRAM

INVENTION, INNOVATION & DESIGN EXPOSITION 2019 (iidex2019)

2019 ANTARABANGSA BRONZE

10. SILVER MEDAL, SMART WATER TURBIDITY LEVEL MEASUREMENT SYSTEM WITH IOT ENABLED FOR ENVIRONMENTAL MONITORING

2018 NATIONAL

11. SILVER MEDAL, A SIMPLE FACE DETECTION METHOD IN CAMPUS ENVIRONMENT TOWARDS A SUSTAINABLE WELL-BEING SOCIETY

2018 NATIONAL

12. BRONZE MEDAL, I-SOLD: A PROTOTYPE OF SOLAR COOLING INTEGRATED FACADE FOR BALANCING THE HUMAN COMFORT, AND SUSTAINABILITY IN WORKING AND LEARNING SPACE

2018 NATIONAL

13. 2018 IEEE MALAYSIA SECTION BEST FINAL YEAR PROJECT COMPETITION

2018 NATIONAL

14. STAF CONTOH FEBRUARI 2018

2018 UNIVERSITY

15. I-SOLD: A PROTOTYPE OF SOLAR COOLING INTEGRATED FACADE FOR BALANCING HUMAN COMFORT, SUSTAINABILITY IN WORKING AND LEARNING SPACE

8th EXPOSITION ON ISLAMIC INNOVATION (i-INOVA) 2018

2018 UNIVERSITI BRONZE

16. SMART WATER TURBIDITY LEVEL MEASUREMENT WITH IOT ENABLED FOR ENVIRONMENT MONITORING APPLICATION

8th EXPOSITION ON ISLAMIC INNOVATION (i-INOVA) 2018

2018 UNIVERSITI SILVER

AWARDS/RECOGNITION

17. SPEECH-BASED GENDER RECOGNITION

ISLAMIC INNOVATION STUDENT COMPETITION 2018 (IREKA'18)

2018 UNIVERSITI SILVER

18. A SIMPLE FACE DETECTION METHOD IN CAMPUS ENVIRONMENT TOWARDS A SUSTAINABLE WELL-BEING SOCIETY

8th EXPOSITION ON ISLAMIC INNOVATION (i-INOVA) 2018

2018 UNIVERSITI SILVER

19. PEMBIAYAAN INSENTIF JURNAL 2016, RM500

2017 UNIVERSITY

20. GOLD MEDAL

2014 INTERNATIONAL

21. GOLD MEDAL

2014 UNIVERSITY

22. SILVER MEDAL

2013 UNIVERSITY

23. GOLD MEDAL, GLUCOSE DETECTION USING NANO-BIOCHIP FOR PRENATAL CARE

2013 INTERNATIONAL

24. INTELLECTUAL PATENT AWARD

2013 NATIONAL

25. GOLD MEDAL

2013 INTERNATIONAL

26. GOLD MEDAL

2013 INTERNATIONAL

27. GRAND PRIZE AWARD -MINISTRY OF HIGHER EDUCATION OF MALAYSIA

2012 INTERNATIONAL

28. SILVER MEDAL

2012 INTERNATIONAL

29. BRONZE MEDAL, HCG DETECTION FOR PREGNANCY SENSING USING IN HOUSE FABRICATED NANOSTRUCTURE BASED BIOSENSOR

2012 UNIVERSITY

30. THE BEST INVENTION AND INNOVATION SPECIAL AWARD AND GOLD MEDAL, BIO-MOLECULE DETECTION FOR PREGNANCY SENSING USING IN HOUSE FABRICATED NANOSTRUCTURE BASED BIOSENSOR

2012 NATIONAL

AWARDS/RECOGNITION

31. **GOLD MEDAL**

2012 INTERNATIONAL