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ROZANA BINTI ABDUL
RASHID**

PENSYARAH UNIVERSITI DS14

CONTACT

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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. 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

2. 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

3. 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

4. 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

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

SCIENCE OF THE TOTAL ENVIRONMENT

2023 JOURNAL ISI CO-AUTHOR

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

IEEE ACCESS

2023 JOURNAL ISI CO-AUTHOR

7. 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

8. 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

9. 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

10. 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

11. DEVELOPMENT OF SMART SHOES USING PIEZOELECTRIC MATERIAL

MALAYSIAN JOURNAL OF SCIENCE, HEALTH & TECHNOLOGY

2021 JOURNAL OTHER DATABASE MAIN AUTHOR / CONTACT PERSON IN USIM

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

NANO HYBRIDS AND COMPOSITES

2021 JOURNAL WOS MAIN AUTHOR / CONTACT PERSON IN USIM

13. OPTICAL PROPERTIES OF ZNO, TIO2 AND ZNO: TIO2 COMPOSITE FILMS

NANO HYBRIDS AND COMPOSITES

2021 JOURNAL WOS MAIN AUTHOR / CONTACT PERSON IN USIM

PUBLICATION

14. 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

15. DEVELOPMENT OF AUTOMATED MINI GREENHOUSE EMBEDDED WITH ARDUINO

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH IN ENGINEERING INNOVATION

2020 JOURNAL OTHER DATABASE CO-AUTHOR

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

MALAYSIAN JOURNAL OF SCIENCE HEALTH & TECHNOLOGY

2020 JOURNAL OTHERS DATABASE MAIN AUTHOR

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

SOLID STATE PHENOMENA

2020 JOURNAL ERA CO-AUTHOR

18. ZNO COATED OPTICAL FIBER FOR ALCOHOL SENSING APPLICATIONS

SOLID STATE PHENOMENA

2020 JOURNAL SCOPUS MAIN AUTHOR

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

SOLID STATE PHENOMENA

2020 JOURNAL SCOPUS CO-AUTHOR

20. 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

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

INTERNATIONAL JOURNAL OF NANOELECTRONICS AND MATERIALS

2019 JOURNAL SCOPUS CORRESPONDING AUTHOR

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

OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS

2019 JOURNAL ISI MAIN AUTHOR

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

JOURNAL OF PHYSICS.: CONFERENCE SERIES

2019 JOURNAL SCOPUS MAIN AUTHOR

24. 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

25. 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

26. 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

PUBLICATION

27. 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

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

SOLID STATE PHENOMENA

2017 JOURNAL WOS MAIN AUTHOR

29. 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

30. CHEMICAL TAPERING OF POLYMER OPTICAL FIBER

THE INTERNATIONAL CONFERENCE ON APPLIED PHOTONICS AND ELECTRONICS 2017

2017 PROCEEDING NON-INDEX MAIN AUTHOR

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

7TH ASIAN PHYSICS SYMPOSIUM

2017 PROCEEDING NON-INDEX MAIN AUTHOR

32. 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

33. 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

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

ICSE2016 INTERNATIONAL CONFERENCE SEMICONDUCTOR ELECTRONICS

2016 PROCEEDING NON-INDEX CO-AUTHOR

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

ADVANCED SCIENCE LETTERS

2013 JOURNAL SCOPUS MAIN AUTHOR

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

ADVANCED SCIENCE LETTERS

2013 JOURNAL SCOPUS MAIN AUTHOR

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

ADVANCED SCIENCE LETTERS

2013 JOURNAL SCOPUS MAIN AUTHOR

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

OPTOELECTRONICS AND ADVANCED MATERIALS, RAPID COMMUNICATIONS

2013 JOURNAL WOS MAIN AUTHOR

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

JOURNAL NONLINEAR OPTICAL PHYSICS AND MATERIALS

2013 JOURNAL WOS MAIN AUTHOR

PUBLICATION

40. INFLUENCE OF DOPING CONCENTRATIONS OF SOL GEL DERIVED ZN1-XMN XO THIN FILMS

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

2012

PROCEEDING

NON-INDEX

MAIN AUTHOR

41. STRUCTURAL AND OPTICAL PROPERTIES OF NANOSTRUCTURED ZN1-XMN XO THIN FILMS

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

2012

PROCEEDING

NON-INDEX

MAIN AUTHOR

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

THE 3RD IESCO INTERNATIONAL WORKSHOP AND CONFERENCE ON NANOTECHNOLOGY

2012

PROCEEDING

NON-INDEX

MAIN AUTHOR

43. 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

44. 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

45. 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

46. 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

47. TUNING THE BANDGAP OF ZN1?XMN XO 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. GO/ZNO NANOCOMPOSITE COATED PLASTIC OPTICAL FIBER FOR COPPER ION DETECTION IN DRINKING WATER

4TH INNOVATION BANK CHALLENGE 2024 (IBC 2024)

2024 UNIVERSITY SILVER

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

4TH INNOVATION BANK CHALLENGE 2024 (IBC 2024)

2024 UNIVERSITY GOLD

3. GRAPHENE OXIDE COATED OPTICAL FIBER FOR HONEY ADULTERATION DETECTION

SCEINCE AND TECHNOLOGY RESEARCH EXPO (SCITEX)

2024 UNIVERSITY GOLD

4. FLEXIBLE MICRO STRIP PATCH ANTENNA SENSOR FOR POSTURE MONITORING

SCEINCE AND TECHNOLOGY RESEARCH EXPO (SCITEX)

2024 UNIVERSITY BRONZE

5. ANUGERAH PERKHIDMATAN CEMERLANG 2022

2023 UNIVERSITY

6. STAF CONTOH BULAN FEB 2023

2023 OTHERS

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

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

2023 ANTARABANGSA BRONZE

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

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

2023 UNIVERSITY GOLD

9. 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

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

2023 IEEE RSM Conference

2023 ANTARABANGSA BEST PAPER AWARD

11. MASKYLINK: DISCOVERING ASTRONOMY PHENOMENA

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

2023 UNIVERSITY GOLD

12. PLASMONIC FBG-BASED HONEY QUALITY TESTER

MALAYSIA TECHNOLOGY EXPO 2022

2022 ANTARABANGSA GOLD

13. PLASMONIC FBG-BASED HONEY QUALITY TESTER

Persidangan dan Ekspo Ciptaan Institusi Pengajian Tinggi Antarabangsa (PECIPTA22)

2022 ANTARABANGSA GOLD

14. 3D HALOGRAM FOR EARLY CHILDHOOD EDUCATION

MINGGU PENYELIDIKAN & INOVASI 2021 (MPI'21)

2021 KEBANGSAAN GOLD

AWARDS/RECOGNITION

15. 3D HALOGRAM FOR EARLY CHILDHOOD EDUCATION

INTERNATIONAL INNOVATION ARSVOT MALAYSIA (IAM 2021)

2021

ANTARABANGSA

SILVER

16. ANUGERAH PENYELIDIKAN TERBAIK

2020

UNIVERSITY

17. STAFF OF THE MONTH

2020

UNIVERSITY

18. ACADEMIC ADVISOR

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

2020

UNIVERSITY

19. ACADEMIC ADVISOR

PANEL PENILAI LAPORAN KEMAJUAN PENYELIDIKAN FST

2020

UNIVERSITY

20. ACADEMIC ADVISOR

INNOVATION AND TECHNOLOGY COMPETITION 2019

2019

UNIVERSITY

21. ACADEMIC ADVISOR

KEMENTERIAN PENDIDIKAN MALAYSIA

2019

NATIONAL

22. O-WHEEL

EDUNOVATION CARNIVAL: TRANSFORMATION TOWARDS ENTREPRENEURIAL MINDSET PERINGKAT KEBANGSAAN

2019

KEBANGSAAN

GOLD

23. AUTOMATED MINI GREENHOUSE CONTROLLER WITH ARDUINO

MELAKA INTERNATIONAL INTELLECTUAL EXPOSITION 2019

2019

ANTARABANGSA

CERTIFICATE OF APPRECIATION

24. AUTOMATED MINI GREEN HOUSE CONTROLLER WITH ARDUINO

MELAKA INTERNATIONAL INTELLECTUAL EXPOSITION (MIIEx 2019)

2019

ANTARABANGSA

BRONZE

25. ANUGERAH PERKHIDMATAN CEMERLANG 2017

2018

UNIVERSITY

26. ACADEMIC ADVISOR

REGIONAL CONFERENCE ON SOLID STATE SCIENCE AND TECHNOLOGY 2018

2018

NATIONAL

27. ACADEMIC ADVISOR

QUALIFYING TEST 2017 PELAJAR PASCASISWAZAH FST

2017

UNIVERSITY

28. VISITING SCHOLAR

FAKULTI KEJURUTERAAN DAN ALAM BINA, UNIVERSITI KEBANGSAAN MALAYSIA

2016

UNIVERSITY

AWARDS/RECOGNITION

29. ACADEMIC ADVISOR

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

2016

UNIVERSITY