

DR. WAN MAISARAH BINTI MUKHTAR

PENSYARAH UNIVERSITI DS13

CONTACT

PHONE
06-7988780

E-MAIL
wmaisarah@usim.edu.my

FACULTY
Fakulti Sains Dan Teknologi

SUPERVISION

	COMPLETED	ONGOING
PhD	0	0
Master	1	0

AREAS OF EXPERTISE

Nano Photonic | Optical/photonic Sensor | Photonics Materials

ACADEMIC QUALIFICATION

2014 **PhD** - Kejuruteraan Mikro Dan Nanoelektronik

2009 **Master** - Teknologi Tenaga

2004 **Bachelor** - Fizik Komputeran Dan Elektronik

RESEARCH

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

2023 | GERAN PENYELIDIKAN USIM | ON GOING | MAIN RESEARCHER

2. HIGH SENSITIVE FREE SPACE OPTICS - PLASMONIC SENSOR

2014 | GERAN KPT | COMPLETED | MAIN RESEARCHER

PUBLICATION

1. 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

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

INTERNATIONAL LASER TECHNOLOGY AND OPTICS SYMPOSIUM 2020 (ILATOS2020) IN CONJUNCTION WITH PHOTONICS MEETING 2020 (PM2020)

2021 PROCEEDING NON-INDEX MAIN AUTHOR

3. ENHANCED SPR RESPONSE USING AU/GO THIN FILMS VIA KRETSCHMANN COUPLING BY CONTROLLING THE INCIDENT LIGHT INTENSITIES

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

2020 JOURNAL ISI AND SCOPUS MAIN AUTHOR

4. REAL TIME DETECTION OF MILK?S SPOILAGE USING AU/GO BEND SMF SENSOR BASED ON LOCALIZED SURFACE PLASMON RESONANCE EFFECT

JOURNAL OF MECHANICAL ENGINEERING AND SCIENCES

2020 JOURNAL SCOPUS MAIN AUTHOR

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

SOLID STATE PHENOMENA

2020 JOURNAL ERA MAIN AUTHOR

6. STUDY ON THE SENSITIVITY OF BARE FIBER BRAGG GRATING FOR ULTRASONIC FREQUENCIES RESPONSE UNDER VARIOUS TEMPERATURE

THE 2ND INTERNATIONAL CONFERENCE ON RECENT ADVANCEMENTS IN SCIENCE AND TECHNOLOGY (ICORAST2019)

2020 PROCEEDING NON-INDEX MAIN AUTHOR

7. E-COLI IDENTIFICATION USING KRETSCHMANN-BASED AG/GO NANOCOMPOSITES PLASMONIC SENSOR

THE 2ND INTERNATIONAL CONFERENCE ON APPLIED PHOTONICS AND ELECTRONICS 2019 (INCAPE 2019)

2020 PROCEEDING NON-INDEX MAIN AUTHOR

8. IDENTIFICATION OF NEAR-FIELD AND FAR-FIELD USING CONFOCAL MICROSCOPY SETUP FOR OPTICAL SENSING APPLICATIONS

ASM SCIENCE JOURNAL

2019 JOURNAL SCOPUS MAIN AUTHOR

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

JOURNAL OF ADVANCED RESEARCH IN MATERIALS SCIENCE

2018 JOURNAL OTHER DATABASE MAIN AUTHOR

10. THEORETICAL STUDY ON HYBRID AMPLIFICATION OF 32-CHANNELS DWDM IN OPTICAL PARAMETRIC AMPLIFIERS

JOURNAL OF ADVANCED RESEARCH DESIGN

2018 JOURNAL OTHER DATABASE MAIN AUTHOR

PUBLICATION

11. STUDY ON PLASMON ABSORPTION OF HYBRID AU-GO-GNP FILMS FOR SPR SENSING APPLICATION

RECENT ADVANCEMENT ON APPLIED PHYSICS, INDUSTRIAL CHEMISTRY AND CHEMICAL TECHNOLOGY (ICORAST)

2018 PROCEEDING NON-INDEX MAIN AUTHOR

12. MAXIMIZING THE RESPONSE OF SPR SIGNAL: A VITAL ROLE OF LIGHT EXCITATION WAVELENGTH

3RD INTERNATIONAL CONFERENCE ON APPLIED SCIENCE AND TECHNOLOGY (ICAST?18)

2018 PROCEEDING NON-INDEX MAIN AUTHOR

13. SPR SENSOR FOR DETECTION OF HEAVY METAL IONS: MANIPULATING THE EM WAVES POLARIZATION MODES

MALAYSIAN JOURNAL OF FUNDAMENTAL AND APPLIED SCIENCES

2017 JOURNAL WOS MAIN AUTHOR

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

JOURNAL OF ADVANCED RESEARCH IN APPLIED SCIENCES AND ENGINEERING TECHNOLOGY

2017 JOURNAL OTHER DATABASE MAIN AUTHOR

15. OPTIMIZATION OF SPR SIGNALS: MONITORING THE PHYSICAL STRUCTURES AND REFRACTIVE INDICES OF PRISMS

INTERNATIONAL CONFERENCE ON APPLIED PHOTONICS AND ELECTRONICS (INCAPE2017)

2017 PROCEEDING NON-INDEX MAIN AUTHOR

16. FABRICATION OF GOLD STRIP THIN FILM ON GLASS SUBSTRATE FOR PLASMONIC DEMODULATION APPLICATION

IEEE-RSM 2015

2015 PROCEEDING NON-INDEX MAIN AUTHOR

17. ELECTRO-OPTICS INTERACTION IMAGING IN ACTIVE PLASMONIC DEVICES

OPTICAL MATERIALS EXPRESS

2014 JOURNAL WOS MAIN AUTHOR

18. GOLD NANOPARTICLES GROWN USING MODIFIED SEED-MEDIATED GROWTH TECHNIQUE.

ADVANCED SCIENCE LETTERS

2013 JOURNAL SCOPUS MAIN AUTHOR

19. INFLUENCES OF LIGHT COUPLING TECHNIQUES TO THE EXCITATION OF SURFACE PLASMON POLARITONS

ADVANCED SCIENCE LETTERS

2013 JOURNAL SCOPUS MAIN AUTHOR

20. ANGLE SHIFTING IN SURFACE PLASMON RESONANCE: EXPERIMENTAL AND THEORETICAL VERIFICATION

JOURNAL OF PHYSICS: CONFERENCE SERIES

2013 JOURNAL SCOPUS MAIN AUTHOR

21. PROPAGATION OF SURFACE PLASMON WAVES AT METAL THIN FILM/AIR INTERFACE USING MODIFIED OPTICAL WAVEGUIDING ASSEMBLY.

OPTOELECTRONICS & ADVANCED MATERIALS-RAPID COMMUNICATIONS

2013 JOURNAL WOS MAIN AUTHOR

PUBLICATION

22. EFFECT OF TAPER ANGLE OF THE OPTICAL FIBER MICROPROBE IN POWER COLLECTION

ADVANCED MATERIALS RESEARCH

2012 JOURNAL SCOPUS MAIN AUTHOR

23. ﷺMICROFABRICATED FIBER PROBE BY COMBINATION OF ELECTRIC ARC DISCHARGE AND CHEMICAL ETCHING TECHNIQUESﷺ, , HLM 462

ADVANCED MATERIALS RESEARCH

2012 JOURNAL SCOPUS MAIN AUTHOR

24. ANALYSIS OF BICONICAL TAPER GEOMETRIES TO THE TRANSMISSION LOSSES IN OPTICAL MICROFIBERS

OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS

2012 JOURNAL WOS MAIN AUTHOR

25. STUDY OF FRAUNHOFER DIFFRACTION PATTERN FROM A CIRCULAR APERTURE USING AN OPTICAL FIBER MICROPROBEﷺ, , HLM 378-379

ADVANCED MATERIALS RESEARCH

2012 JOURNAL SCOPUS MAIN AUTHOR

26. ANGLE SHIFTING IN SURFACE PLASMON RESONANCE: EXPERIMENTAL AND THEORETICAL VERIFICATION. JOURNAL OF PHYSICS: CONFERENCE SERIES, 431, HLM 012028

THE 3RD ISESCO INTERNATIONAL WORKSHOP AND CONFERENCE ON NANOTECHNOLOGY 2012 (IWCN 2012)

2012 PROCEEDING NON-INDEX MAIN AUTHOR

27. EFFECT ON TAPER ANGLE OF OPTICAL FIBER MICROPROBE IN LIGHT DETECTION

8 TH INTERNATIONAL SYMPOSIUM ON MODERN OPTICS AND ITS APPLICATIONS (ISMOA 2011)

2011 PROCEEDING NON-INDEX MAIN AUTHOR

28. FABRICATION OF OPTICAL FIBER MICROPROBE USING ELECTRIC ARC HEATING AND ONE-SIDED PULLING TECHNIQUE. HLM 104.

RESEARCH AND DEVELOPMENT (SCORED), 2010 IEEE STUDENT CONFERENCE ON,

2010 PROCEEDING NON-INDEX MAIN AUTHOR

CONSULTATION

1. JOURNAL REVIEWER

-

2018 INTERNATIONAL

2. BOOK REVIEWER

PUSAT PENGURUSAN PENYELIDIKAN DAN INOVASI, USIM

2018 UNIVERSITY

3. JOURNAL REVIEWER

-

2017 INTERNATIONAL

CONSULTATION

4. CONFERENCE PROCEEDING REVIEWER

-

2017 INTERNATIONAL

5. JOURNAL REVIEWER

JOURNAL OF TELECOMMUNICATIONS, ELECTRONICS AND COMPUTER ENGINEERING

2016 INTERNATIONAL

AWARDS/RECOGNITION

1. FALL DETECTION SENSOR FOR ELDERLY

INTERNATIONAL CREATIVE INNOVATION IDEA COMPETITION (ICIIC), 2026

2026 ANTARABANGSA BRONZE

2. MULTISENSOR SYSTEM FOR BOXED DRINK QUALITY USING PH AND TURBIDITY SENSORS

INTERNATIONAL CREATIVE INNOVATION IDEA COMPETITION (ICIIC), 2026

2026 ANTARABANGSA SILVER

3. SMART STREET LIGHT SYSTEM USING ARDUINO UNO, LDR SENSOR AND IR MOTION SENSOR

INTERNATIONAL CREATIVE INNOVATION IDEA COMPETITION (ICIIC), 2026

2026 ANTARABANGSA GOLD

4. IOT BASED SMART PARKING SYSTEM SENSOR TECHNOLOGY

INTERNATIONAL CREATIVE INNOVATION IDEA COMPETITION (ICIIC), 2026

2026 ANTARABANGSA GOLD

5. SIJIL PENGHARGAAN MARKAH PRESTASI YANG CEMERLANG MELEBIHI 95 % DALAM LAPORAN NILAIAN PRESTASI TAHUNAN (LNPT) BAGI TAHUN 2024

2025 UNIVERSITY