



## TS. DR. IRNEZA BINTI ISMAIL

PENSYARAH UNIVERSITI DS13

### CONTACT

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**Faculty:** Fakulti

Kejuruteraan Dan Alam

Bina

### SUPERVISION

PhD - Completed: 0, Ongoing: 1

Master - Completed: 2,

Ongoing: 3

### AREAS OF EXPERTISE

Optical Systems

Optical And Photonic Systems

Fibre Optic

### ACADEMIC QUALIFICATION

PhD in Optical Communication (communication Engineering & Informati (2016)

Master in Electrical Electronic And Telecommunication (2010)

Bachelor in Electrical Electronic Engineering (2002)

### RESEARCH

#### 1. OPTICAL LIGHT PROPAGATION METHOD IN MICROPLASTIC WATER CONTAMINATION FOR RAPID WATER SENSING APPLICATION

2023 GERAN KPT ON GOING MAIN RESEARCHER

#### 2. OPTIMIZATION OF NEAR INFRARED SPECTROSCOPY (NIRS) CONFIGURATION PARAMETERS FOR HAND, FOOT AND MOUTH DISEASE (HFMD) DETECTION

2020 GERAN PENYELIDIKAN USIM RACER COMPLETED MAIN RESEARCHER

# PUBLICATION

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## 1. BENEFIT OF MIXED MODULATION FORMAT IN OPTICAL NETWORK : AN OVERVIEW

TECHNOLOGIES IN SCIENCE AND ENGINEERING: A MULTIDISCIPLINARY APPROACH

2023 CHAPTER IN BOOK MAIN AUTHOR

## 2. NEAR-INFRARED SPECTROSCOPY AS A POTENTIAL COVID-19 EARLY DETECTION METHOD: A REVIEW AND FUTURE PERSPECTIVE

SENSORS

2022 JOURNAL ERA MAIN AUTHOR

## 3. 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

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

2020 PROCEEDING NON-INDEX MAIN AUTHOR

## 4. MONTE CARLO SIMULATION OF OPTICAL LIGHT TRANSPORT IN AN ABSORPTION-BASED TAPERED FIBER SENSOR

INTERNATIONAL CONFERENCE OF PHOTONICS (ICP) 2020

2020 PROCEEDING NON-INDEX MAIN AUTHOR

## 5. PERFORMANCE ANALYSIS OF SISO AND MIMO FSO COMMUNICATION UNDER MALAYSIA WEATHER CONDITION BY EMPLOYING OPTISYTEM

INTERNATIONAL SEMINAR ON ISLAM AND SCIENCE 2019

2019 PROCEEDING NON-INDEX MAIN AUTHOR

## 6. ISLAMIC PERSPECTIVE ON SUSTAINABILITY IN JAPAN

ADVANCES IN SUSTAINABLE LIVING

2019 CHAPTER IN BOOK MAIN AUTHOR

## 7. ISLAMIC PERSPECTIVE ON RECYCLING IN JAPAN

ADVANCES IN SUSTAINABLE LIVING

2019 CHAPTER IN BOOK MAIN AUTHOR

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

ADVANCED SCIENCE LETTERS

2018 JOURNAL SCOPUS MAIN AUTHOR

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

INTERNATIONAL CONFERENCE ON ADVANCED NETWORKING, COMPUTING AND ENGINEERING TECHNOLOGIES (ICCNA)

2017 PROCEEDING NON-INDEX MAIN AUTHOR

## 10. WIDE RANGE OPERATION OF AN ALL-OPTICAL NRZ-DPSK-TO-RZ-DPSK REGENERATIVE WAVEFORM-WAVELENGTH CONVERSION WITH FLEXIBLE WIDTH-TUNABILITY

OPTICAL REVIEW

2015 JOURNAL WOS MAIN AUTHOR

## 11. ONE TO SIX WAVELENGTH MULTICASTING OF RZ-OOK BASED ON PICOSECOND-WIDTH-TUNABLE PULSE SOURCE WITH DISTRIBUTED RAMAN AMPLIFICATION

IEICE TRANSACTION ON ELECTRONICS

2015 JOURNAL WOS MAIN AUTHOR

## 12. MULTICHANNEL TUNABLE PULSEWIDTH NRZ-TO-RZ CONVERSION OF INTENSITY- AND PHASE-MODULATED SIGNALS USING RAMAN ADIABATIC-SOLITON COMPRESSOR

OPTOELECTRONICS AND COMMUNICATIONS CONFERENCE (OECC)

2014 PROCEEDING NON-INDEX MAIN AUTHOR

## 13. 6-FOLD WAVELENGTH MULTICASTING USING TUNABLE-WIDTH PICOSECOND PULSE SOURCE FROM RAMAN ADIABATIC SOLITON-COMPRESSOR

OPTOELECTRONICS AND COMMUNICATIONS CONFERENCE (OECC)

2014 PROCEEDING NON-INDEX MAIN AUTHOR

# AWARDS/RECOGNITION

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## 1. ENZYMATIC COCOA POD WAX EXTRACTION MONITORING DEVICE FOR COCOA FARMS

4TH INNOVATION BANK CHALLENGE 2024 (IBC 2024)

2024

UNIVERSITY

SILVER

## 2. SIMPLE, PORTABLE, ARDUINO-BASED UV LIGHT SPECTROPHOTOMETER FOR LIQUID-BASED SOLUTION

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

2023

ANTARABANGSA

GOLD

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

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

2023

UNIVERSITY

BRONZE

## 4. STAF CONTOH OCTOBER 2022

2022

UNIVERSITY

## 5. IOT- BASED BATTERY MONITORING SYSTEM

PERTANDINGAN REKACIPTA INOVASI INTERNASIONAL & NASIONAL 2022 (PRIIN 2022)

2022

ANTARABANGSA

SILVER