



PROF. MADYA IR. TS. DR. JULIZA BINTI JAMALUDIN

PENSYARAH UNIVERSITI DS14

CONTACT

Phone: 067988498

E-mail: juliza@usim.edu.my

Address: Fakulti
Kejuruteraan Dan Alam Bina

SUPERVISION

PhD - Completed: 0, Ongoing: 2

Master - Completed: 3, Ongoing: 4

AREAS OF EXPERTISE

Sensor Technology In Control And Instrumentation

Digital Tomography (including Computer Tomography)

Optical And Optoelectronics Engineering

BIOGRAPHY

A lecturer from Fakulti Kejuruteraan Dan Alam Bina. Holds a Phd in Kejuruteraan Elektrik.

ACADEMIC QUALIFICATION

Phd in Kejuruteraan Elektrik (2016)

Master in Kejuruteraan Elektrik- Mekatronik Dan Kawlan Automatik (2013)

Bachelor in Kejuruteraan Elektrik- Kawalan Dan Instrumentasi (2008)

RESEARCH

1. ARTIFICIAL INTELLIGENCE APPLICATIONS FOR INDUSTRIAL PIPELINE INTEGRITY MONITORING

2025 ON GOING MAIN RESEARCHER

2. GOLD AUTHENTICATION SYSTEM

2025 ON GOING MAIN RESEARCHER

3. INVESTIGATING THE POTENTIAL OF PORTABLE WATER QUALITY INSPECTION SYSTEM INTEGRATED WITH TF MINI-S LIDAR AND IOT MONITORING SYSTEM

2024 ON GOING MAIN RESEARCHER

4. SALAH CHAIR

2023 ON GOING MAIN RESEARCHER

5. DEVELOPMENT OF UPPER LIMB EXOSKELETON SYSTEM

2023 ON GOING MAIN RESEARCHER

**6. DEVELOPMENT OF MOBILE APPLICATION FOR WOMEN'S
"PRELOVED" BUSINESS PLATFORM: FASHION ARCHADE (FACADE)**

2022 COMPLETED MAIN RESEARCHER

**7. CONCEPTUAL MODELLING OF DUAL-MODE TOMOGRAPHY
TECHNIQUE FOR DENTAL DIAGNOSTICS BASED ON ULTRASOUND
AND LIGHT PROPAGATION ANALYSIS.**

2022 ON GOING MAIN RESEARCHER

**8. A CONCEPTUAL MODELLING OF QUANTITATIVE GRADING
VALUATION OF RUBY STONE VIA USING CHARGE-COUPLED DEVICE
(CCD) TOMOGRAPHY APPROACH**

2020 COMPLETED MAIN RESEARCHER

**9. SECURITY-HARDENED DESIGN SPACE EXPLORATION FOR HARD
REAL-TIME EMBEDDED NOC IN CYBER-PHYSICAL SYSTEMS**

2018 COMPLETED MAIN RESEARCHER

PUBLICATION

1. ASAM DI DARAT, IKAN DI LAUT, DI DALAM BELANGA BERTEMU JUGA

2025 CHAPTER IN BOOK

2. SIMULATION STUDY OF ULTRASONIC TOMOGRAPHY APPROACH IN DETECTING FOREIGN OBJECT IN MILK PACKAGING

2023 JOURNAL

3. RESILIENT LIVING BY OPTIMIZING THE BUILDING FA?ADE IN DESIGNING POST-COVID HOUSING

2022 JOURNAL

4. ONLINE SIMULATION TO MONITOR MULTIPHASE FLOW USING LASER SOURCE AS TRANSMITTER

2021 JOURNAL

5. AN APPLICATION OF CHARGE-COUPLED DEVICE (CCD) TOMOGRAPHY SYSTEM FOR GEMOLOGICAL INDUSTRY - A REVIEW

2021 PROCEEDING

6. THE DEVELOPMENT OF SALAH CHAIR USING ELECTRONIC SENSOR TO ASSIST DISABLED MUSLIMS IN PERFORMING PRAYERS

2020 JOURNAL

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

2020 JOURNAL

8. CCD OPTICAL TOMOGRAPHY SYSTEM TO DETECT SOLID CONTAMINATION IN CRYSTAL-CLEAR WATER

2020 JOURNAL

9. CYBER-PHYSICAL SYSTEM (CPS) APPLICATION_A REVIEW

2020 JOURNAL

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

2020 PROCEEDING

11. CHARGE-COUPLED DEVICE OPTICAL TOMOGRAPHY SYSTEM FOR AIR BUBBLES DETECTION

2020 BOOK

12. DEVICES IN OPTICS, TOMOGRAPHY AND BIOSENSING

2019 CHAPTER IN BOOK

13. STATISTICAL ANALYSES IN VALIDATING THE PERFORMANCE OF OPTICAL TOMOGRAPHY SYSTEM IN MEASURING OBJECT DIAMETER

2019 CHAPTER IN BOOK

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

2018 JOURNAL

15. ANALYSIS ON THE EFFECT OF SENSOR VIEWS IN IMAGE RECONSTRUCTION PRODUCED BY OPTICAL TOMOGRAPHY SYSTEM USING CHARGE-COUPLED DEVICE

2018 JOURNAL

16. TOMOGRAPHY VALIDATION METHOD THROUGH STATISTICAL ANALYSIS OF VARIANCE TECHNIQUE

2018 PROCEEDING

17. CYBER-PHYSICAL SYSTEM (CPS): STATE OF THE ART

2018 PROCEEDING

18. CHARGE-COUPLED DEVICE BASED ON OPTICAL TOMOGRAPHY SYSTEM FOR MONITORING TWO-PHASE FLOW

2017 JOURNAL

19. CHARGE-COUPLED DEVICE BASED ON OPTICAL TOMOGRAPHY SYSTEM FOR MONITORING MULTIPHASE FLOW

2017 JOURNAL

20. CHARGE-COUPLED DEVICE BASED ON OPTICAL TOMOGRAPHY SYSTEM IN DETECTING SOLID AND TRANSPARENT OBJECTS IN NON-FLOWING CRYSTAL CLEAR WATER.

2017 JOURNAL

21. IMAGE RECONSTRUCTION MODELLING FOR OPTICAL TOMOGRAPHY SYSTEM USING CHARGE-COUPLED DEVICE (CCD) LINEAR SENSOR

2017 PROCEEDING

22. STATISTICAL ANALYSES IN VALIDATING THE PERFORMANCE OF OPTICAL TOMOGRAPHY SYSTEM IN MEASURING OBJECT DIAMETER

2017 PROCEEDING

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

2017 PROCEEDING

24. ONLINE OPTICAL TOMOGRAPHY SYSTEM FOR DETECTING AND MEASURING DIAMETER OF SOLID AND TRANSPARENT OBJECTS

2016 JOURNAL

25. OPTICAL TOMOGRAPHY SYSTEM: APPLICATION OF CHARGE COUPLED DEVICE FOR SOLID AND TRANSPARENT OBJECT DETECTION

2016 JOURNAL

26. ONLINE OPTICAL TOMOGRAPHY SYSTEM APPLICATION OF CHARGE-COUPLED DEVICE (CCD) FOR OBJECT DETECTION IN CRYSTAL CLEAR WATER.

2016 JOURNAL

27. ONLINE OPTICAL TOMOGRAPHY SYSTEM APPLICATION OF CHARGE-COUPLED DEVICE (CCD) FOR OBJECT DETECTION IN CRYSTAL CLEAR WATER

2016 JOURNAL

28. INTRODUCING AN APPLICATION OF A CHARGED COUPLED DEVICE (CCD) IN AN OPTICAL TOMOGRAPHY SYSTEM

2015 JOURNAL

29. ANALYSIS ON THE PERFORMANCE OF LED AND LASER DIODE WITH CHARGE COUPLED DEVICE LINEAR SENSOR MEASURING DIAMETER OF OBJECT.

2015 JOURNAL

30. A REVIEW OF THE OPTICAL TOMOGRAPHY SYSTEM

2014 JOURNAL

31. A REVIEW OF TOMOGRAPHY SYSTEM

2013 JOURNAL

2013 PROCEEDING

CONSULTATION/ADULATION

1. 100 A NEUTRAL LINK TNBL/QA/BHG.1/PC/N/21/0480

2023 NATIONAL TNB LABS SDN. BHD.

2. INSULATION PIERCING CONNECTORS FOR CONNECTION OF LOW VOLTAGE BARE CONDUCTOR TO AERIAL BUNDLE CABLE

2023 NATIONAL TNBR

3. 100A NEUTRAL LINK

2022 NATIONAL TNB LABS SDN BHD

AWARDS/RECOGNITION

1. ANUGERAH PENYELIDIK HARAPAN SAINS, TEKNOLOGI DAN PERUBATAN 2024

2025 UNIVERSITY

2. PENCAPAIAN LAPORAN NILAI PRESTASI TAHUNAN MELEBIHI 95% 2024

2025 UNIVERSITY

3. STAFF CONTOH 2024

2025 UNIVERSITY

4. ANUGERAH MYAKRAB TERBAIK 2024

2025 UNIVERSITY

5. ANUGERAH PENYELIDK TERBAIK FKAB 2025

2025 UNIVERSITY