



PROF. IR. DR. HAFIZAL BIN MOHAMAD

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Address: Fakulti Kejuruteraan Dan Alam Bina

SUPERVISION

PhD - Completed: 0, Ongoing: 2

Master - Completed: 0, Ongoing: 1

AREAS OF EXPERTISE

Digital Communications Networks

Radio Frequency And Wireless Systems

Expert Systems And Machine Learning

BIOGRAPHY

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

ACADEMIC QUALIFICATION

Phd in Wireless Communications (2004)

Bachelor in Electronic (1998)

RESEARCH

1. AUTOMATED MACHINE LEARNING SYSTEM FOR INSTALLATION, OPERATION AND MAINTENANCE OF SOLAR PROJECTS USING SATELLITE AND DRONE IMAGERY

2025 ON GOING MAIN RESEARCHER

2. AUTOMATED MACHINE LEARNING SYSTEM FOR INSTALLATION, OPERATION AND MAINTENANCE OF SOLAR PROJECTS USING SATELLITE AND DRONE IMAGERY

2025 ON GOING MAIN RESEARCHER

3. INTELLIGENT DRONE NAVIGATION UNDER TREE CANOPY AND ITS DEEP LEARNING AIDED DATA POST-PROCESSING

2022 ON GOING MAIN RESEARCHER

4. MOBILITY AND HANDOVER OPTIMIZATION FOR DEEP LEARNING ASSISTED ULTRA-DENSE 6G HETEROGENEOUS NETWORKS

2021 ON GOING MAIN RESEARCHER

5. DESIGN AND DEVELOPMENT OF PERSONAL PROTECTIVE EQUIPMENT (PPE) BOX FOR HEALTHCARE APPLICATION

2020 COMPLETED MAIN RESEARCHER

PUBLICATION

1. QUANTIFYING THE AVAILABILITY OF TV WHITE SPACE FOR COGNITIVE RADIO IN MALAYSIA

2024 PROCEEDING

2. ENHANCING BANDWIDTH AND GAIN OF CYLINDRICAL DIELECTRIC RESONATOR ANTENNA ARRAYS USING SUBSTRATE INTEGRATED WAVEGUIDE TECHNIQUE

2024 PROCEEDING

3. PERFORMANCE ENHANCEMENT OF CDRA FOR 5G APPLICATIONS

2024 PROCEEDING

4. HANDOVER PERFORMANCE OF MOBILITY ROBUSTNESS OPTIMIZATION FOR BEYOND 5G NETWORKS (5G)

2024 PROCEEDING

5. IOT-BASED MONITORING SYSTEM FOR INDOOR AIR QUALITY USING THINGSBOARD

2024 PROCEEDING

6. INTELLIGENT COORDINATED SELF-OPTIMIZING HANDOVER SCHEME FOR 4G/5G HETEROGENEOUS NETWORKS

2023 JOURNAL

7. IOT BASED INDOOR AIR AND WATER QUALITY MONITORING SYSTEM USING NODE-RED

2023 PROCEEDING

8. HANDOVER MANAGEMENT OVER DUAL CONNECTIVITY IN 5G TECHNOLOGY WITH FUTURE ULTRA-DENSE MOBILE HETEROGENEOUS NETWORKS: A REVIEW

2022 JOURNAL

9. TIME SERIES FORECASTING MODEL OF FUTURE SPECTRUM DEMANDS FOR MOBILE BROADBAND NETWORKS IN MALAYSIA, TURKEY, AND OMAN

2022 JOURNAL

10. OVERVIEW OF EVOLUTIONARY ALGORITHMS AND NEURAL NETWORKS FOR MODERN MOBILE COMMUNICATION

2022 JOURNAL

11. CONFLICT RESOLUTION STRATEGY IN HANDOVER MANAGEMENT FOR 4G AND 5G NETWORKS

2022 JOURNAL

12. MOBILITY-AWARE OFFLOADING DECISION FOR MULTI-ACCESS EDGE COMPUTING IN 5G NETWORKS

2022 JOURNAL

13. HANDOVER MANAGEMENT FOR DRONES IN FUTURE MOBILE NETWORKS?A SURVEY

2022 JOURNAL

14. PEATLANDS MONITORING IN MALAYSIA WITH IOT SYSTEMS: PRELIMINARY EXPERIMENTAL RESULTS

2021 CHAPTER IN BOOK

15. A COMPREHENSIVE SURVEY ON MOBILITY MANAGEMENT IN 5G HETEROGENEOUS NETWORKS: ARCHITECTURES, CHALLENGES AND SOLUTIONS

2020 JOURNAL

16. HYBRID NEAREST NEIGHBOUR AND FEED-FORWARD NEURAL NETWORKS ALGORITHM FOR INDOOR POSITIONING SYSTEM

2020

PROCEEDING

AWARDS/RECOGNITION

1. ACADEMIC ADVISOR

2025

NATIONAL

2. AI-POWERED LEGAL FRAMEWORK FOR OPTIMIZING SUSTAINABLE HOUSEHOLD SOLID WASTE RECYCLING IN MALAYSIA

2025

Antarabangsa

Silver

3. ACADEMIC ADVISOR

2024

NATIONAL

4. STAF CONTOH FKAB

2023

UNIVERSITY

5. ACADEMIC ADVISOR

2022

NATIONAL