

PROF. IR. DR. HAFIZAL BIN MOHAMAD

PENSYARAH UNIVERSITI GRED KHAS C

CONTACT

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Dan Alam Bina

SUPERVISION

PhD - Completed: 0, Ongoing: 2 Master - Completed: 0, Ongoing: 1

AREAS OF EXPERTISE

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 GERAN KPT ON GOING MAIN RESEARCHER

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

2022 GERAN PENYELIDIKAN INDUSTRI ON GOING MAIN RESEARCHER

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

2021 GERAN KPT ON GOING MAIN RESEARCHER

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

2020 GERAN PENYELIDIKAN COVID-19 COMPLETED MAIN

RESEARCHER

PUBLICATION

2021 CHAPTER IN BOOK MAIN AUTHOR

1. QUANTIFYING THE AVAILABILITY OF TV WHITE SPACE FOR COGNITIVE RADIO IN MALAYSIA 7TH IEEE INTERNATIONAL CONFERENCE ON ADVANCED TECHNOLOGIES, SIGNAL AND IMAGE PROCESSING (ATSIP 2024) 2024 PROCEEDING SCOPUS MAIN AUTHOR 2. ENHANCING BANDWIDTH AND GAIN OF CYLINDRICAL DIELECTRIC RESONATOR ANTENNA ARRAYS USING SUBSTRATE INTEGRATED WAVEGUIDE TECHNIQUE 2024 IEEE ASIA-PACIFIC CONFERENCE ON APPLIED ELECTROMAGNETICS (APACE 2024) 2024 PROCEEDING SCOPUS MAIN AUTHOR 3. PERFORMANCE ENHANCEMENT OF CDRA FOR 5G APPLICATIONS INTERNATIONAL CONFERENCE ON ADVANCED TELECOMMUNICATION AND NETWORKING TECHNOLOGIES (ATNT 2024) 2024 PROCEEDING NON-INDEX MAIN AUTHOR 4. HANDOVER PERFORMANCE OF MOBILITY ROBUSTNESS OPTIMIZATION FOR BEYOND 5G NETWORKS (5G) 14TH IEEE SYMPOSIUM ON COMPUTER APPLICATIONS AND INDUSTRIAL ELECTRONICS (ISCAIE 2024) 2024 PROCEEDING NON-INDEX MAIN AUTHOR 5. IOT-BASED MONITORING SYSTEM FOR INDOOR AIR QUALITY USING THINGSBOARD CONFERENCE ON APPLIED ELECTRONICS AND ENGINEERING (ICAEE 2024) 2024 PROCEEDING NON-INDEX MAIN AUTHOR 6. IOT BASED INDOOR AIR AND WATER QUALITY MONITORING SYSTEM USING NODE-RED 9TH INTERNATIONAL CONFERENCE ON COMPUTER AND COMMUNICATION ENGINEERING (ICCCE 2023) 2023 PROCEEDING SCOPUS MAIN AUTHOR 7. HANDOVER MANAGEMENT OVER DUAL CONNECTIVITY IN 5G TECHNOLOGY WITH FUTURE ULTRA-DENSE MOBILE HETEROGENEOUS NETWORKS: A REVIEW INTERNATIONAL JOURNAL ENGINEERING SCIENCE AND TECHNOLOGY 2022 JOURNAL JCR MAIN AUTHOR 8. TIME SERIES FORECASTING MODEL OF FUTURE SPECTRUM DEMANDS FOR MOBILE BROADBAND NETWORKS IN MALAYSIA, TURKEY, AND OMAN AEJ - ALEXANDRIA ENGINEERING JOURNAL 2022 JOURNAL SCOPUS MAIN AUTHOR 9. OVERVIEW OF EVOLUTIONARY ALGORITHMS AND NEURAL NETWORKS FOR MODERN MOBILE COMMUNICATION TRANSACTIONS ON EMERGING TELECOMMUNICATIONS TECHNOLOGIES 2022 JOURNAL ISI MAIN AUTHOR 10. CONFLICT RESOLUTION STRATEGY IN HANDOVER MANAGEMENT FOR 4G AND 5G NETWORKS CMC-COMPUTERS MATERIALS & CONTINUA 2022 JOURNAL ISI MAIN AUTHOR 11. MOBILITY-AWARE OFFLOADING DECISION FOR MULTI-ACCESS EDGE COMPUTING IN 5G NETWORKS SENSORS 2022 JOURNAL ISI MAIN AUTHOR 12. HANDOVER MANAGEMENT FOR DRONES IN FUTURE MOBILE NETWORKS?A SURVEY **SENSORS** 2022 JOURNAL ERA MAIN AUTHOR 13. PEATLANDS MONITORING IN MALAYSIA WITH IOT SYSTEMS: PRELIMINARY EXPERIMENTAL RESULTS COMPUTATIONAL INTELLIGENCE IN INFORMATION SYSTEMS

PUBLICATION

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

IEEE ACCESS

2020 JOURNAL ISI MAIN AUTHOR

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

2020 IEEE 8TH CONFERENCE ON SYSTEMS, PROCESS AND CONTROL (ICSPC)

2020 PROCEEDING NON-INDEX MAIN AUTHOR

AWARDS/RECOGNITION

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

INTERNATIONAL GRAND INVENTION, INNOVATION, AND DESIGN EXPO (IGIIDeation) 2025, IIUM

2025 ANTARABANGSA SILVER

2. STAF CONTOH FKAB

2023 UNIVERSITY

3. ACADEMIC ADVISOR

UNIVERSITI KUALA LUMPUR KAMPUS CAWANGAN MALAYSIAN INSTITUTE OF INFORMATION TECHNOLOGY (UNIKL - MIIT)

2022 NATIONAL

4. ACADEMIC ADVISOR

FAKULTI KEJURUTERAAN ELEKTRONIK DAN KEJURUTERAAN KOMPUTER (FKEKK), UNIVERSITI TEKNIKAL MALAYSIA MELAKA (UTEM)

2022 NATIONAL

5. E-PROSUMER: SMART PRECISION FERTIGATION SYSTEM

Persidangan dan Ekspo Ciptaan Institusi Pengajian Tinggi Antarabangsa (PECIPTA22)

2022 ANTARABANGSA SILVER