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MUHAMMAD MOKHZAINI
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PENSYARAH UNIVERSITI DS14

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Faculty: Fakulti Kejuruteraan
Dan Alam Bina

SUPERVISION

PhD - Completed: 2, Ongoing: 0

Master - Completed: 0, Ongoing: 1

AREAS OF EXPERTISE

Electrical Power Generation And Supply

Power System

Renewable Energy

Image Processing And Pattern Recognition

Artificial Intelligence And Intelligent Systems For Life Sciences

ACADEMIC QUALIFICATION

PhD in Kejuruteraan Elektrik Dan Elektronik (2013)

Master in Kejuruteraan Elektrik Dan Elektronik (2009)

Bachelor in Kejuruteraan (kuasa Industri) (2006)

RESEARCH

1. ADVANCING BATTERY MONITORING SYSTEM WITH STATE-OF-HEALTH METRIC AT JAYALAX RESOURCES

2025

GERAN KPT

ON GOING

CO-RESEARCHER

2. QURANIC SIGN LANGUAGE DETECTION SYSTEM USING LSTM NEURAL NETWORK

2024

GERAN PENYELIDIKAN USIM

ON GOING

CO-RESEARCHER

3. FORMULATING THE ISLAMIC ENERGY GARDEN (IEG) FRAMEWORK FOR SUSTAINABLE LIVING IN MALAYSIAN CAMPUSES BASED ON MAQASID SHARIAH.

2024

GERAN PENYELIDIKAN USIM

ON GOING

CO-RESEARCHER

4. TAARIQ: DESIGN AND DEVELOPMENT OF AN AI-BASED HUMANOID ROBOT

2023

GERAN PENYELIDIKAN KHAS

ON GOING

CO-RESEARCHER

5. DEVELOPMENT OF DATA BASED ENERGY EFFICIENCY MANAGEMENT SYSTEM AT KAMPUS BAROKAH USIM FOR COST EFFECTIVE PRACTISE USING PREDICTIVE AND MACHINE LEARNING CAPABILITY

2022

GERAN PENYELIDIKAN USIM

ON GOING

MAIN RESEARCHER

RESEARCH

6. BATTERY MONITORING SYSTEM FOR GENERATOR SETS

2022

GERAN PENYELIDIKAN AGENSI KERAJAAN

COMPLETED

CO-RESEARCHER

7. DEVELOPMENT OF MOBILE APPLICATION FOR "EDUCATIONAL GAMES FOR KIDS WITH LEARNING DISABILITIES: KID WONDERS - KINDERS"

2022

GERAN PENYELIDIKAN AGENSI KERAJAAN

COMPLETED

CO-RESEARCHER

8. CORROSION-AMPACITY MODELLING FOR AMPACITY PERFORMANCE INDEX FORMULATION ON OVERHEAD CONDUCTORS

2022

GERAN KPT

ON GOING

CO-RESEARCHER

9. SOLAR GREEN FACADE AND IOT - BASED SYSTEM FOR INDOOR AIR QUALITY TOWARDS A SUSTAINABLE LIFE OF 'SAKINAH'

2021

GERAN PENYELIDIKAN FLAGSHIP

ON GOING

CO-RESEARCHER

PUBLICATION

1. CLEMD, A CIRCUIT-LEVEL ELECTRICAL MEASUREMENTS DATASET FOR ELECTRICAL ENERGY MANAGEMENT SCIENTIFIC DATA

2024 JOURNAL ISI CO-AUTHOR

2. ANALYSIS OF ELECTRIC FIELD ON OVERHEAD DISTRIBUTION LINE DUE TO LIGHTNING STRIKE

2024 POSTGRADUATE AND INDUSTRY RESEARCH COLLOQUIUM (PIRC)

2024 PROCEEDING NON-INDEX CO-AUTHOR

3. PALM OIL AS A TRANSFORMER INSULATING FLUID: A REVIEW

2024 POSTGRADUATE AND INDUSTRY RESEARCH COLLOQUIUM (PIRC)

2024 PROCEEDING NON-INDEX CO-AUTHOR

4. DEVELOPMENT OF BATTERY MONITORING SYSTEM FOR POWER GENERATORS: INSIGHTS AND EXPERIENCE

2024 POSTGRADUATE AND INDUSTRY RESEARCH COLLOQUIUM (PIRC)

2024 PROCEEDING NON-INDEX CO-AUTHOR

5. POWER QUALITY - NEW INSIGHTS

2024 BOOK EDITOR

6. HIGH-TEMPERATURE LOW SAG CONDUCTOR: THE NEW TREND TO TRANSMIT ELECTRICITY

ADVANCEMENT IN ENGINEERING AND TECHNOLOGY

2024 CHAPTER IN BOOK CO-AUTHOR

7. TRIMODALITY IMAGE REGISTRATION OF ULTRASOUND, CARDIAC COMPUTED TOMOGRAPHY, AND MAGNETIC RESONANCE IMAGING FOR TRANSCATHETER AORTIC VALVE IMPLANTATION AND REPLACEMENT IMAGE GUIDANCE HEALTH AND TECHNOLOGY

2023 JOURNAL SCOPUS CO-AUTHOR

8. FLEXIBLE SECTOR DETECTOR-BASED MISMATCH SUPPLY VOLTAGE IN DIRECT TORQUE CONTROL DOUBLY FED INDUCTION MACHINE: AN EXPERIMENTAL VALIDATION

AEJ - ALEXANDRIA ENGINEERING JOURNAL

2023 JOURNAL SCOPUS CORRESPONDING AUTHOR

9. OPTIMAL SIZING OF STANDALONE FOR HYBRID RENEWABLE ENERGY SYSTEM BY USING PSO OPTIMIZATION TECHNIQUE

INTERNATIONAL JOURNAL OF POWER ELECTRONICS AND DRIVE SYSTEMS

2023 JOURNAL SCOPUS CO-AUTHOR

10. POWER QUALITY - NEW INSIGHT

2023 BOOK EDITOR

11. INTRODUCTORY CHAPTER

POWER QUALITY - NEW INSIGHT

2023 CHAPTER IN BOOK MAIN AUTHOR

12. ARTIFICIAL INTELLIGENCE ENABLED PERSONALISED ASSISTIVE TOOLS TO ENHANCE EDUCATION OF CHILDREN WITH NEURODEVELOPMENTAL DISORDERS?A REVIEW

INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH

2022 JOURNAL ERA CORRESPONDING AUTHOR

13. COMPARISON TECHNIQUES FOR OPTIMIZATION SWITCHING FREQUENCY IN ENERGY ENCRYPTION OF WIRELESS POWER TRANSFER SYSTEM

JOURNAL OF ADVANCED RESEARCH IN APPLIED SCIENCES AND ENGINEERING TECHNOLOGY

2022 JOURNAL MYCITE CORRESPONDING AUTHOR

PUBLICATION

14. OPTIMAL SIZING OF A HYBRID SYSTEM THROUGH PARTICLE SWARM OPTIMIZATION FOR RURAL AREAS IN IRAQ
INDONESIAN JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE

2022 JOURNAL SCOPUS MAIN AUTHOR / CONTACT PERSON IN USIM

15. ASSESSMENT OF RENEWABLE ENERGY SOURCES TO GENERATE ELECTRICITY FOR REMOTE AREAS, SOUTH IRAQ
INTERNATIONAL JOURNAL OF POWER ELECTRONICS AND DRIVE SYSTEMS

2022 JOURNAL SCOPUS MAIN AUTHOR / CONTACT PERSON IN USIM

16. MICROCALCIFICATION DISCRIMINATION IN MAMMOGRAPHY USING DEEP CONVOLUTIONAL NEURAL NETWORK: TOWARDS RAPID AND EARLY BREAST CANCER DIAGNOSIS
FRONTIERS IN PUBLIC HEALTH

2022 JOURNAL ERA CORRESPONDING AUTHOR

17. MACHINE LEARNING APPROACH REGARDING THE CLASSIFICATION AND PREDICTION OF DOG SOUNDS: A CASE STUDY OF SOUTH INDIAN BREEDS
APPLIED SCIENCES-BASEL

2022 JOURNAL ISI MAIN AUTHOR / CONTACT PERSON IN USIM

18. WATER QUALITY INDEX USING MODIFIED RANDOM FOREST TECHNIQUE: ASSESSING NOVEL INPUT FEATURES
CMES-COMPUTER MODELING IN ENGINEERING & SCIENCES

2022 JOURNAL ISI MAIN AUTHOR / CONTACT PERSON IN USIM

19. COVID-19 ISOLATION CONTROL PROPOSAL VIA UAV AND UGV FOR CROWDED INDOOR ENVIRONMENTS: ASSISTIVE ROBOTS IN THE SHOPPING MALLS
FRONTIERS IN PUBLIC HEALTH

2022 JOURNAL ERA CORRESPONDING AUTHOR

20. RLMD-PA: A REINFORCEMENT LEARNING-BASED MYOCARDITIS DIAGNOSIS COMBINED WITH A POPULATION-BASED ALGORITHM FOR PRETRAINING WEIGHTS
CONTRAST MEDIA & MOLECULAR IMAGING

2022 JOURNAL WOS CORRESPONDING AUTHOR

21. TOWARDS INTEGRATED AIR POLLUTION MONITORING AND HEALTH IMPACT ASSESSMENT USING FEDERATED LEARNING: A SYSTEMATIC REVIEW
FRONTIERS IN PUBLIC HEALTH

2022 JOURNAL ERA CORRESPONDING AUTHOR

22. SYSTEMATIC REVIEW ON COVID-19 READMISSION AND RISK FACTORS: FUTURE OF MACHINE LEARNING IN COVID-19 READMISSION STUDIES
FRONTIERS IN PUBLIC HEALTH

2022 JOURNAL ERA CORRESPONDING AUTHOR

23. PREDICTING OCCUPATIONAL INJURY CAUSAL FACTORS USING TEXT-BASED ANALYTICS: A SYSTEMATIC REVIEW
FRONTIERS IN PUBLIC HEALTH

2022 JOURNAL ERA MAIN AUTHOR / CONTACT PERSON IN USIM

24. AN AUTOMATED SOLID WASTE DETECTION USING THE OPTIMIZED YOLO MODEL FOR RIVERINE MANAGEMENT
FRONTIERS IN PUBLIC HEALTH

2022 JOURNAL ERA CORRESPONDING AUTHOR

25. DEEP EUTECTIC SOLVENTS FOR THE REMOVAL OF LEAD CONTAMINANTS IN MANGROVE SOIL
JOURNAL OF ENVIRONMENTAL CHEMICAL ENGINEERING

2022 JOURNAL ERA CO-AUTHOR

26. NON INTRUSIVE LOAD MONITORING BASED ON BAGGING DECISION TREES AND THE SELECTIVE FEATURES FOR COMMERCIAL BUILDING LOADS

2022 IEEE INTERNATIONAL CONFERENCE ON POWER AND ENERGY PECON2022

2022 PROCEEDING NON-INDEX CO-AUTHOR

PUBLICATION

27. COMPARISON OF NON-INTRUSIVE LOAD MONITORING SUPERVISED METHODS USING HARMONICS AS FEATURE
2022 INTERNATIONAL CONFERENCE ON ELECTRICAL, COMPUTER AND ENERGY TECHNOLOGIES (ICECET)

2022 PROCEEDING NON-INDEX CO-AUTHOR

28. ACHIEVING CARBON BALANCED ECOSYSTEM: CASE STUDY OF CARBON SEQUESTRATION ANALYSIS IN UNIVERSITI MALAYA

6TH KUALA LUMPUR INTERNATIONAL CONFERENCE ON BIOMEDICAL ENGINEERING 2021 PROCEEDINGS OF BIOMED2021

2022 CHAPTER IN BOOK CO-AUTHOR

29. SURFACE WATER QUALITY ASSESSMENT: A CASE STUDY OF MERBOK RIVER, KUALA MUDA, KEDAH

6TH KUALA LUMPUR INTERNATIONAL CONFERENCE ON BIOMEDICAL ENGINEERING 2021 PROCEEDINGS OF BIOMED2021

2022 CHAPTER IN BOOK CO-AUTHOR

30. SUSTAINABLE ENERGY AND POWER ENGINEERING

PROCEEDINGS OF THE 6TH INTERNATIONAL CONFERENCE ON ELECTRICAL, CONTROL AND COMPUTER ENGINEERING

2022 CHAPTER IN BOOK CO-AUTHOR

31. FEASIBILITY OF PV?WIND?DIESEL HYBRID RENEWABLE ENERGY POWER SYSTEM FOR OFF-GRID RURAL ELECTRIFICATION IN IRAQ: A CASE STUDY

JOURNAL OF ENGINEERING SCIENCE AND TECHNOLOGY

2021 JOURNAL SCOPUS MAIN AUTHOR / CONTACT PERSON IN USIM

32. WATER, SOIL AND AIR POLLUTANTS? INTERACTION ON MANGROVE ECOSYSTEM AND CORRESPONDING ARTIFICIAL INTELLIGENCE TECHNIQUES USED IN DECISION SUPPORT SYSTEMS - A REVIEW

IEEE ACCESS

2021 JOURNAL ISI MAIN AUTHOR / CONTACT PERSON IN USIM

33. PRIORITISATION ASSESSMENT AND ROBUST PREDICTIVE SYSTEM FOR MEDICAL EQUIPMENT: A COMPREHENSIVE STRATEGIC MAINTENANCE MANAGEMENT

FRONTIERS IN PUBLIC HEALTH

2021 JOURNAL ERA MAIN AUTHOR / CONTACT PERSON IN USIM

34. MULTISTAGE OPTIMIZATION USING A MODIFIED GAUSSIAN MIXTURE MODEL IN SPERM MOTILITY TRACKING

COMPUTATIONAL AND MATHEMATICAL METHODS IN MEDICINE

2021 JOURNAL ERA MAIN AUTHOR / CONTACT PERSON IN USIM

35. A SYSTEMATIC REVIEW OF MEDICAL EQUIPMENT RELIABILITY ASSESSMENT IN IMPROVING THE QUALITY OF HEALTHCARE SERVICES

FRONTIERS IN PUBLIC HEALTH

2021 JOURNAL ERA MAIN AUTHOR / CONTACT PERSON IN USIM

36. OBJECT DETECTION AND MOVEMENT TRACKING USING TUBELETS AND FASTER RCNN ALGORITHM WITH ANCHOR GENERATION

WIRELESS COMMUNICATIONS AND MOBILE COMPUTING

2021 JOURNAL WOS MAIN AUTHOR / CONTACT PERSON IN USIM

37. BRAIN TUMOUR TEMPORAL MONITORING OF INTERVAL CHANGE USING DIGITAL IMAGE SUBTRACTION TECHNIQUE
FRONTIERS IN PUBLIC HEALTH

2021 JOURNAL ERA CO-AUTHOR

38. SURFACE WATER QUALITY ASSESSMENT: A CASE STUDY OF MERBOK RIVER, KUALA MUDA, KEDAH

THE 6TH INTERNATIONAL CONFERENCE ON BIOMEDICAL ENGINEERING

2021 PROCEEDING NON-INDEX CO-AUTHOR

39. ACHIEVING CARBON-BALANCED ECOSYSTEM: CASE STUDY OF CARBON SEQUESTRATION ANALYSIS IN UNIVERSITI MALAYA

THE 6TH INTERNATIONAL CONFERENCE ON BIOMEDICAL ENGINEERING

2021 PROCEEDING NON-INDEX CO-AUTHOR

PUBLICATION

40. COMPARISON OF ALGEBRAIC RECONSTRUCTION TECHNIQUE METHODS AND GENERATIVE ADVERSARIAL NETWORK IN IMAGE RECONSTRUCTION OF MAGNETIC INDUCTION TOMOGRAPHY (MIT)

INTERNATIONAL CONFERENCE ON BIOMEDICAL ENGINEERING (ICOB 2021) 14, 15 SEPTEMBER 2021, UNIMAP, MALAYSIA (VIRTUAL)

2021

PROCEEDING

NON-INDEX

CO-AUTHOR

CONSULTATION

1. TECHNICAL EVALUATOR SECARA FREELANCE

TNB LABS SDN BHD

2023

NATIONAL

2. TECHNICAL EVALUATOR SECARA FREELANCE UNTUK TNB LABS SDN BHD

TNB LABS SDN BHD

2022

NATIONAL

3. PROGRAM PENINGKATAN PERUSAHAAN SOSIAL ASAS B40 MELALUI TEKNOLOGI APLIKASI TELEFON IBOSS

IBOSS INNOVATIVES SDN BHD

2022

NATIONAL

4. Battery Storage Management System (BSMS) and Technical Knowledge Training

Technopreneur UniMAP Sdn Bhd



National

AWARDS/RECOGNITION

1. ICE BOX

ICOMPEX 2024- international innovation and invention through exhibition 2024

2024

ANTARABANGSA

GOLD

2. INDOOR COMFORT ENVIRONMENT ICE BOX

ICOMPEX 2024- international innovation and invention through exhibition 2024

2024

ANTARABANGSA

CERTIFICATE OF APPRECIATION

3. ACADEMIC ADVISOR

POLITEKNIK UNGKU OMAR

2023

NATIONAL

4. ACADEMIC ADVISOR

UNIVERSITI MALAYSIA PAHANG AL-SULTAN ABDULLAH UMPSA

2023

NATIONAL

5. ACADEMIC ADVISOR

UNIVERSITI MALAYSIA PAHANG AL-SULTAN ABDULLAH (UMPSA)

2023

NATIONAL

6. ICE BOX (INDOOR, COMFORT, ENVIRONMENT)

34th INTERNATIONAL INVENTION & TECHNOLOGY EXHIBITION MALAYSIA (ITEX2023)

2023

ANTARABANGSA

GOLD

7. ANUGERAH PENULIS AKTIF (Q1/Q2)

2022

UNIVERSITY

8. VISITING PROFESOR

INSTITUT TEKNOLOGI SEPULUH NOPEMBER (ITS) SURABAYA, INDONESIA

2022

INTERNATIONAL

9. VISITING PROFESOR

INSTITUT TEKNOLOGI SEPULUH NOPEMBER (ITS) SURABAYA, INDONESIA

2022

INTERNATIONAL

10. SMART PARCEL DROP BOX

PERTANDINGAN REKACIPTA INOVASI INTERNASIONAL & NASIONAL 2022 (PRIIN 2022)

2022

ANTARABANGSA

SILVER

11. IOT- BASED BATTERY MONITORING SYSTEM

PERTANDINGAN REKACIPTA INOVASI INTERNASIONAL & NASIONAL 2022 (PRIIN 2022)

2022

ANTARABANGSA

SILVER

12. ICE BOX (INDOOR, COMFORT, ENVIRONMENT)

Persidangan dan Ekspo Ciptaan Institusi Pengajian Tinggi Antarabangsa (PECIPTA22)

2022

ANTARABANGSA

GOLD

13. RUBBER TREE TRUNK HUMIDITY INSPECTOR

PERTANDINGAN REKACIPTA INOVASI INTERNASIONAL & NASIONAL 2022 (PRIIN 2022)

2022

ANTARABANGSA

SILVER