

Profile Image

IR. DR. NUR HAZIRAH BINTI ZAINI

PENSYARAH UNIVERSITI DS13

CONTACT

Phone: 06-7986519

E-mail:

nurhazirah@usim.edu.my

Faculty: Fakulti Kejuruteraan
Dan Alam Bina

SUPERVISION

PhD - Completed: 1, Ongoing: 0

Master - Completed: 0, Ongoing: 1

AREAS OF EXPERTISE

Electrical Power Generation And Supply

Renewable Energy

Solar Energy Technology

High Voltage

ACADEMIC QUALIFICATION

PhD in Electrical Power (2019)

Master in Pengurusan Kejuruteraan (2014)

Bachelor in Elektrik Dan Elektronik (2008)

RESEARCH

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

2025 GERAN KPT ON GOING CO-RESEARCHER

2. THE IMPACT OF LIGHTNING STRIKES ON ELECTRIC VEHICLES INTEGRATED WITH SOLAR PV SYSTEMS FOR SUSTAINABLE ENERGY SOLUTION

2024 GERAN KPT ON GOING MAIN RESEARCHER

3. 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 CO-RESEARCHER

4. BATTERY MONITORING SYSTEM FOR GENERATOR SETS

2022 GERAN PENYELIDIKAN AGENSI KERAJAAN COMPLETED CO-RESEARCHER

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

2022 GERAN PENYELIDIKAN AGENSI KERAJAAN COMPLETED CO-RESEARCHER

RESEARCH

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

2022

GERAN KPT

ON GOING

CO-RESEARCHER

7. INVESTIGATION OF INDUCED VOLTAGE ON UNDERGROUND TRANSMISSION CABLES WITHIN LINE CORRIDORS FOR URBAN PLANNING.

2021

GERAN KPT

COMPLETED

CO-RESEARCHER

PUBLICATION

1. THERMO-ECONOMIC STUDY OF COLD THERMAL ENERGY STORAGE WITH VARIOUS STORAGE SCENARIOS IN A SUPERMARKET LOCATED IN TROPICAL CLIMATES

ENERGY EFFICIENCY

2024 JOURNAL SCOPUS CO-AUTHOR

2. INVESTIGATION OF LIGHTNING ELECTROMAGNETIC FIELDS ON THE DISTRIBUTION POWER LINES CLOSE TO THE LINE CORRIDOR TOWERS.

2024 IEEE 4TH INTERNATIONAL CONFERENCE IN POWER ENGINEERING APPLICATIONS (ICPEA)

2024 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

3. TRANSIENT VOLTAGE ANALYSIS ON GRID-CONNECTED SOLAR PV SYSTEM DUE TO LIGHTNING

2024 5TH MYHVNET COLLOQUIUM

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. 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

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

2024 POSTGRADUATE AND INDUSTRY RESEARCH COLLOQUIUM (PIRC)

2024 PROCEEDING NON-INDEX CO-AUTHOR

7. COORDINATED SPD SYSTEMS FOR MITIGATING THE EFFECT OF LIGHTNING-INDUCED VOLTAGE ON HYBRID SOLAR PV-BATTERY ENERGY STORAGE SYSTEM

12TH ASIA-PACIFIC INTERNATIONAL CONFERENCE ON LIGHTNING (APL 2023)

2023 PROCEEDING SCOPUS CO-AUTHOR

8. AUTOMATED NEGATIVE LIGHTNING RETURN STROKES CHARACTERIZATION USING BRUTE-FORCE SEARCH ALGORITHM

PERTANIKA JOURNAL OF SOCIAL SCIENCES & HUMANITIES

2022 JOURNAL ISI, SCOPUS AND ERA MAIN AUTHOR / CONTACT PERSON IN USIM

9. 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 CO-AUTHOR

10. ANALYSIS OF CHARGE ACCUMULATION WITHIN INSULATING MATERIALS VIA NUMERICAL SIMULATION

2022 IEEE INTERNATIONAL CONFERENCE ON POWER SYSTEMS TECHNOLOGY (POWERCON)

2022 PROCEEDING SCOPUS CORRESPONDING AUTHOR

11. IMPACT OF EARTHING SYSTEM DESIGNS AND SOIL CHARACTERISTICS ON TOWER FOOTING IMPEDANCE AND GROUND POTENTIAL RISE: A MODELLING APPROACH FOR SUSTAINABLE POWER OPERATION

SUSTAINABILITY

2021 JOURNAL ERA MAIN AUTHOR / CONTACT PERSON IN USIM

12. ANALYSIS OF LIGHTNING-INDUCED VOLTAGES EFFECT WITH SPD PLACEMENT FOR SUSTAINABLE OPERATION IN HYBRID SOLAR PV-BATTERY ENERGY STORAGE SYSTEM

SUSTAINABILITY

2021 JOURNAL ERA MAIN AUTHOR / CONTACT PERSON IN USIM

13. EFFECT OF EARTHING ENHANCING COMPOUND (EEC) ON IMPROVING TOWER FOOTING RESISTANCE OF A 500 KV TOWER IN A ROCKY AREA

APPLIED SCIENCES-BASEL

2021 JOURNAL ISI MAIN AUTHOR / CONTACT PERSON IN USIM

PUBLICATION

14. INFLUENCE OF LIGHTNING CURRENT PARAMETERS AND EARTHING SYSTEM DESIGNS ON TOWER FOOTING IMPEDANCE OF 500 KV LINES

ENERGIES

2021 JOURNAL ERA MAIN AUTHOR / CONTACT PERSON IN USIM

15. IMPACTS OF LIGHTNING-INDUCED OVERVOLTAGE ON A HYBRID SOLAR PV?BATTERY ENERGY STORAGE SYSTEM

APPLIED SCIENCES-BASEL

2021 JOURNAL ISI MAIN AUTHOR / CONTACT PERSON IN USIM

16. ANALYSIS OF PERMITTIVITY AND TEMPERATURE EFFECT ON CHARGE ACCUMULATION WITHIN CROSS-LINKED POLYETHYLENE (XLPE) VIA NUMERICAL SIMULATION

13TH INTERNATIONAL CONFERENCE ON THE PROPERTIES AND APPLICATIONS OF DIELECTRIC MATERIALS (ICPADM 2021)

2021 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

17. LIGHTNING PERFORMANCE ANALYSIS OF A ROOFTOP GRID-CONNECTED SOLAR PHOTOVOLTAIC WITHOUT EXTERNAL LIGHTNING PROTECTION SYSTEM

PLOS ONE

2019 JOURNAL ERA MAIN AUTHOR / CONTACT PERSON IN USIM

18. LIGHTNING SURGE ON THE DC AND AC SIDE OF SOLAR PV SYSTEM

11TH ASIA-PACIFIC INTERNATIONAL CONFERENCE ON LIGHTNING (APL)

2019 PROCEEDING NON-INDEX MAIN AUTHOR

19. LIGHTNING PROTECTION ON PHOTOVOLTAIC SYSTEMS: A REVIEW ON CURRENT AND RECOMMENDED PRACTICES

RENEWABLE AND SUSTAINABLE ENERGY REVIEW

2018 JOURNAL ERA MAIN AUTHOR / CONTACT PERSON IN USIM

20. ON THE EFFECT OF SURGE PROTECTION DEVICES (SPDS) PLACEMENT FOR GRID-CONNECTED SOLAR PV FARM

34TH INTERNATIONAL CONFERENCE ON LIGHTNING PROTECTION (ICLP)

2018 PROCEEDING NON-INDEX MAIN AUTHOR

21. LIGHTNING SURGE ANALYSIS ON A LARGE SCALE GRID-CONNECTED SOLAR PHOTOVOLTAIC SYSTEM

ENERGIES

2017 JOURNAL ERA MAIN AUTHOR / CONTACT PERSON IN USIM

22. ON THE EFFECT OF LIGHTNING ON A SOLAR PHOTOVOLTAIC SYSTEM

33RD INTERNATIONAL CONFERENCE ON LIGHTNING PROTECTION (ICLP)

2016 PROCEEDING NON-INDEX CO-AUTHOR

23. ON THE PERFORMANCE OF A POLYCRYSTALLINE PV PANEL UNDER DIFFERENT IMPULSE VOLTAGES AND TEMPERATURE

33RD INTERNATIONAL CONFERENCE ON LIGHTNING PROTECTION (ICLP)

2016 PROCEEDING NON-INDEX CO-AUTHOR

24. TEMPERATURE EFFECT ON THE ELECTRICAL PERFORMANCE OF POLY-CRYSTALLINE SOLAR PV PANEL

INTERNATIONAL CONFERENCE ON POWER, ENERGY & COMMUNICATION SYSTEMS (IPECS)

2015 PROCEEDING NON-INDEX MAIN AUTHOR

25. THE EFFECT OF TEMPERATURE ON A MONO-CRYSTALLINE SOLAR PV PANEL

2015 IEEE CONFERENCE ON ENERGY CONVERSION (CENCON)

2015 PROCEEDING NON-INDEX MAIN AUTHOR

26. EFFECT OF TEMPERATURE ON A POLY-CRYSTALLINE SOLAR PANEL IN LARGE SCALE SOLAR PLANTS IN MALAYSIA

2015 IEEE CONFERENCE ON ENERGY CONVERSION (CENCON)

2015 PROCEEDING NON-INDEX CO-AUTHOR

CONSULTATION

1. TNB/QA/BHG.1/PC/N/22/0422 LOW VOLTAGE POLE CAPACITOR (RASTECH)

TNB LAB SDN BHD

2023

NATIONAL

2. IPC FOR CONNECTION OF LV CABLE FOR TEKNOBUMI SDN BHD

TNB LABS SDN BHD

2022

NATIONAL

3. CENTERED PALM SHEAR BOLT TYPE MECHANICAL TERMINATION LUG FOR MV CABLE TERMINATION

TNB LABS SDN BHD

2022

NATIONAL

4. SHEAR BOLTS TYPE MECHANICAL CONNECTOR FOR ALUMINIUM CONDUCTOR OF XLPE INSULATED CABLE JOINTS IN DISTRIBUTION DIVISION, TNB.

TNB LABS SDN BHD

2022

NATIONAL

5. OFFSET PALM SHEAR BOLT TYPE MECHANICAL TERMINATION LUG FOR CABLE TERMINATION

TNB LABS SDN BHD

2022

NATIONAL

6. PERUNDINGAN BAGI LANTIKAN SEBAGAI TECHNICAL EVALUATOR MEWAKILI TNB LABS SDN BHD UNTUK SYARIKAT CONWAY TERMINALS MANUFACTURER SDN BHD

TNB LABS SDN BHD

2021

NATIONAL

7. BATTERY STORAGE MANAGEMENT SYSTEM (BSMS) AND TECHNICAL KNOWLEDGE TRAINING

TECHNOPRENUER UNIMAP SDN BHD

2021

NATIONAL

8. TNBL/QA/Bhg.1/PC/N/23/0715_Shear Bolt Type Mechanical - SMF Engineering Sdn Bhd

TNB Lab Sdn Bhd

National

9. TNB/QA/Bhg.1/PC/N/22/0211,281,282 - Zian Synergy Resources

TNB Labs Sdn Bhd

National

AWARDS/RECOGNITION

1. INVESTIGATION OF LIGHTNING ELECTROMAGNETIC FIELDS ON THE DISTRIBUTION POWER LINES CLOSE TO THE LINE CORRIDOR TOWERS

2024 IEEE 4th International Conference in Power Engineering Applications

2024

ANTARABANGSA

BEST PAPER AWARD

2. MOST PROMISING AWARD (IPTA/IPTS/ILK/KV) IN PERTANDINGAN INOVASI HALAL NASIONAL 2023 (PIHAN'23)

2023

UNIVERSITY

3. CONCEPTUAL MODELLING FOR RECYCLING CO2 EMISSION WITH FLEXIBLE THIN FILM SOLAR SCIENCE AND TECHNOLOGY RESERACH EXPO (SCITEX@20TH FST)

2023

UNIVERSITI

BRONZE

4. ULTRASONIC TOMOGRAPHY TECHNIQUE FOR DETECTING FOREIGN OBJECTS BELOW 1 MILIMETRE IN MILK PACKAGING

Pertandingan Inovasi Halal Nasional 2023 (PIHAN'23)

2023

KEBANGSAAN

GOLD

5. STAF CONTOH MEI 2022

2022

OTHERS

6. IOT- BASED BATTERY MONITORING SYSTEM

PERTANDINGAN REKACIPTA INOVASI INTERNASIONAL & NASIONAL 2022 (PRIIN 2022)

2022

ANTARABANGSA

SILVER