

Profile Image

DR. NOOR HANIS IZZUDDIN BIN MAT LAZIM

PENSYARAH UNIVERSITI DS13

CONTACT

Phone:

E-mail:

nh.izzuddin@usim.edu.my

Faculty: Fakulti Kejuruteraan
Dan Alam Bina

SUPERVISION

PhD - Completed: 0, Ongoing: 0

Master - Completed: 1, Ongoing: 1

AREAS OF EXPERTISE

Control Theory

Field Robots

Other Electircal And Electronic Engineering

Autonomous System

ACADEMIC QUALIFICATION

PhD in Electrical Engineering (2019)

Master in Electrical - Mechatronics And Automatic Control (2015)

Bachelor in Electrical & Electronic Engineering (2011)

RESEARCH

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

2025 GERAN KPT ON GOING CO-RESEARCHER

2. TAARIQ: DESIGN AND DEVELOPMENT OF AN AL-BASED HUMANOID ROBOT

2023 GERAN PENYELIDIKAN KHAS ON GOING MAIN RESEARCHER

3. SALAH CHAIR

2023 GERAN PENYELIDIKAN LAB2MARKET ON GOING CO-RESEARCHER

4. DEVELOPMENT OF UPPER LIMB EXOSKELETON SYSTEM

2023 GERAN PEMBANGUNAN INOVASI (GPI) ON GOING CO-RESEARCHER

5. TAARIQ: AUTONOMOUS PERSON-FOLLOWING TELEPRESENCE ROBOT USING STEREO CAMERA AND DEEP LEARNING YOLO

2022 GERAN PENYELIDIKAN USIM ON GOING MAIN RESEARCHER

RESEARCH

6. RESOURCE MANAGEMENT OPTIMIZATION IN 6G NETWORK FOR SMART GRID COMMUNICATIONS USING DEEP LEARNING

2022 GERAN PENYELIDIKAN USIM ON GOING CO-RESEARCHER

7. DEVELOPMENT OF MOBILE APPLICATION FOR WOMEN'S "PRELOVED" BUSINESS PLATFORM: FASHION ARCADE (FACADE)

2022 GERAN PENYELIDIKAN AGENSI KERAJAAN COMPLETED CO-RESEARCHER

8. AUTONOMOUS HUMAN DETECTION AND LOCALIZATION USING MACHINE LEARNING

2021 GERAN KPT (KKP) COMPLETED CO-RESEARCHER

9. AUTOMATIC DISINFECTION CHAMBER

2020 GERAN PENYELIDIKAN COVID-19 COMPLETED MAIN RESEARCHER

10. STUDY OF RAINFALL EFFECT TO OPTIMIZE POWER LINES PERFORMANCE

2020 GERAN PENYELIDIKAN USIM RACER COMPLETED CO-RESEARCHER

11. MODELLING AND CONTROL OF AN AERIAL TRANSPORTATION SYSTEM CARRYING SUSPENDED PAYLOAD

2020 GERAN PENYELIDIKAN USIM RACER COMPLETED CO-RESEARCHER

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

2020 GERAN PENYELIDIKAN COVID-19 COMPLETED CO-RESEARCHER

13. NEW OPTIMAL ENERGY-EFFICIENT CONTROL OF FLEXIBLE SYSTEMS WITH SIMULTANEOUS PAYLOAD HOISTING AND WIND DISTURBANCE

2020 GERAN KPT ON GOING CO-RESEARCHER

PUBLICATION

1. AUTONOMOUS PERSON-FOLLOWING TELEPRESENCE ROBOT USING MONOCULAR CAMERA AND DEEP LEARNING YOLO

APPLICATIONS OF MODELLING AND SIMULATION

2024 JOURNAL SCOPUS CORRESPONDING AUTHOR

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

2024 POSTGRADUATE AND INDUSTRY RESEARCH COLLOQUIUM (PIRC)

2024 PROCEEDING NON-INDEX CO-AUTHOR

3. AUTONOMOUS MOBILE TROLLEY ROBOT (AMTRO): INT-CART

2024 POSTGRADUATE AND INDUSTRY RESEARCH COLLOQUIUM (PIRC)

2024 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

4. SWING CONTROL OF 2D OVERHEAD CRANE USING PROPORTIONAL INTEGRAL DERIVATIVE NEURAL NETWORK

9TH IEEE INTERNATIONAL CONFERENCE ON AUTOMATIC CONTROL AND INTELLIGENT SYSTEMS (I2CACIS2024)

2024 PROCEEDING SCOPUS CO-AUTHOR

5. DEVELOPMENT OF A SEMI-HUMANOID TELEPRESENCE ROBOT USING ROBOT OPERATING SYSTEM

ADVANCEMENT IN ENGINEERING AND TECHNOLOGY

2024 CHAPTER IN BOOK CORRESPONDING AUTHOR

6. PSO-BASED PID-PD CONTROLLER OF A GANTRY CRANE WITH PARAMETER UNCERTAINTIES

JOURNAL OF SUSTAINABILITY SCIENCE AND MANAGEMENT

2023 JOURNAL SCOPUS CO-AUTHOR

7. ATTITUDE AND ALTITUDE CONTROL OF QUADROTOR MAV USING FOPID CONTROLLER

METHODS AND APPLICATIONS FOR MODELING AND SIMULATION OF COMPLEX SYSTEMS

2023 PROCEEDING SCOPUS CO-AUTHOR

8. ROBUST INPUT SHAPING FOR SWING CONTROL OF AN OVERHEAD CRANE

22ND ASIA SIMULATION CONFERENCE

2023 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

9. OSCILLATION DETECTION OF A QUADROTOR SYSTEM CARRYING SUSPENDED PAYLOAD USING IMAGE PROCESSING TECHNIQUE

JOURNAL OF SUSTAINABILITY SCIENCE AND MANAGEMENT

2022 JOURNAL SCOPUS CO-AUTHOR

10. DESIGN AND DEVELOPMENT OF A SEED-SOWING ROBOT PROTOTYPE

SEMINAR ANTARABANGSA ISLAM DAN SAINS 2022

2022 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

11. SIMULATION OF NUMERICAL METHODS FOR ENGINEERING

SEMINAR ANTARABANGSA ISLAM DAN SAINS 2022 (SAIS2022)

2022 PROCEEDING NON-INDEX CO-AUTHOR

12. ADAPTIVE SUPER TWISTING SLIDING MODE CONTROL OF QUADROTOR MAV

CONTROL, INSTRUMENTATION AND MECHATRONICS: THEORY AND PRACTICE

2022 CHAPTER IN BOOK CO-AUTHOR

13. POSITION AND ATTITUDE CONTROL OF QUADROTOR MAV USING SLIDING MODE CONTROL WITH TANH FUNCTION

ENABLING INDUSTRY 4.0 THROUGH ADVANCES IN MECHATRONICS

2022 CHAPTER IN BOOK CO-AUTHOR

PUBLICATION

14. EFFECTIVE FORMATION TRACKING OF QUADROTORS WITH INTELLIGENT DISTURBANCE OBSERVER-BASED CONTROL

IRANIAN JOURNAL OF SCIENCE AND TECHNOLOGY - TRANSACTIONS OF ELECTRICAL ENGINEERING

2021 JOURNAL SCOPUS MAIN AUTHOR / CONTACT PERSON IN USIM

15. LEADER-FOLLOWER FORMATION CONTROL OF QUADROTORS WITH COLLISION AVOIDANCE USING ARTIFICIAL POTENTIAL FIELD

SEMINAR ANTARABANGSA ISLAM DAN SAINS (SAIS) 2021

2021 PROCEEDING NON-INDEX MAIN AUTHOR

16. AUTONOMOUS UAV-BASED CATTLE DETECTION AND COUNTING USING YOLOV3 AND DEEP SORT

SEMINAR ANTARABANGSA ISLAM DAN SAINS 2021 (SAIS 2021)

2021 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

17. COMBINED NEURAL NETWORK-BASED INPUT SHAPING AND FEEDBACK CONTROL OF AN OVERHEAD CRANE CONTROL AND MECHATRONICS ENGINEERING IN MULTIPLE APPLICATIONS

2021 CHAPTER IN BOOK CO-AUTHOR

18. ADAPTIVE PID CONTROLLER USING SLIDING MODE CONTROL APPROACHES FOR QUADROTOR UAV ATTITUDE AND POSITION STABILIZATION

ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING

2020 JOURNAL ISI MAIN AUTHOR

19. EFFICIENT SWING CONTROL OF AN OVERHEAD CRANE WITH SIMULTANEOUS PAYLOAD HOISTING AND EXTERNAL DISTURBANCES

MECHANICAL SYSTEMS AND SIGNAL PROCESSING

2020 JOURNAL ISI CO-AUTHOR

20. CONSENSUS TRACKING CONTROL OF MULTIPLE QUADROTORS WITH A COOPERATIVE LEADER APPLICATIONS OF MODELLING AND SIMULATION

2020 JOURNAL OTHER DATABASE MAIN AUTHOR

21. MODELLING AND FUZZY LOGIC CONTROL OF AN UNDERACTUATED TOWER CRANE SYSTEM

APPLICATIONS OF MODELLING AND SIMULATION

2020 JOURNAL OTHER DATABASE CO-AUTHOR

22. TRAJECTORY TRACKING OF A QUADROTOR WITH DISTURBANCE REJECTION USING EXTENDED STATE OBSERVER

2020 IEEE ASIA-PACIFIC CONFERENCE ON COMPUTER SCIENCE AND DATA ENGINEERING (CSDE)

2020 PROCEEDING NON-INDEX MAIN AUTHOR

23. DESIGN OF A LOW-COST AUTOMATIC DISINFECTION CHAMBER

SEMINAR ANTARABANGSA ISLAM DAN SAINS (SAIS 2020)

2020 PROCEEDING NON-INDEX MAIN AUTHOR

24. DISTURBANCE OBSERVER-BASED FORMATION TRACKING CONTROL OF MULTIPLE QUADROTORS IN THE PRESENCE OF DISTURBANCES

TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL

2019 JOURNAL ISI MAIN AUTHOR

25. INTELLIGENT OBSERVER-BASED FEEDBACK LINEARIZATION FOR AUTONOMOUS QUADROTOR CONTROL

INTERNATIONAL JOURNAL OF ENGINEERING & TECHNOLOGY (UAE)

2018 JOURNAL SCOPUS MAIN AUTHOR

26. FEEDBACK LINEARIZATION WITH INTELLIGENT DISTURBANCE OBSERVER FOR AUTONOMOUS QUADROTOR WITH TIME-VARYING DISTURBANCE

INTERNATIONAL JOURNAL OF MECHANICAL AND MECHATRONICS ENGINEERING

2018 JOURNAL SCOPUS MAIN AUTHOR

PUBLICATION

27. CONTROL STRATEGIES FOR CRANE SYSTEMS: A COMPREHENSIVE REVIEW

MECHANICAL SYSTEMS AND SIGNAL PROCESSING

2017

JOURNAL

ISI

CO-AUTHOR

28. OPTIMAL FORMATION CONTROL OF MULTIPLE QUADROTORS BASED ON PARTICLE SWARM OPTIMIZATION

COMMUNICATIONS IN COMPUTER AND INFORMATION SCIENCE

2017

CHAPTER IN BOOK

MAIN AUTHOR

29. MODELING AND FORCE CONTROL OF THIN SOFT MCKIBBEN ACTUATOR

INTERNATIONAL JOURNAL OF AUTOMATION TECHNOLOGY

2016

JOURNAL

SCOPUS

CO-AUTHOR

30. SYSTEM IDENTIFICATION AND PREDICTIVE FUNCTIONAL CONTROL FOR ELECTRO-HYDRAULIC ACTUATOR SYSTEM

2015 IEEE INTERNATIONAL SYMPOSIUM ON ROBOTICS AND INTELLIGENT SENSORS (IRIS)

2015

PROCEEDING

NON-INDEX

MAIN AUTHOR

AWARDS/RECOGNITION

1. GOLD IN INNOVATION BANK CHALLENGE 2024 (IBC 2024)

2024

NATIONAL

2. STAF CONTOH (JULAI 2024)

2024

OTHERS

3. MUSOLLI COMPANION

4TH INNOVATION BANK CHALLENGE 2024 (IBC 2024)

2024

UNIVERSITI

BRONZE

4. INT-CART: INTELLIGENT SHOPPING CART ROBOT

4TH INNOVATION BANK CHALLENGE 2024 (IBC 2024)

2024

UNIVERSITI

GOLD

5. TAARIQ: AUTONOMOUS PERSON-FOLLOWING TELEPRESENCE ROBOT USING STEREO CAMERA AND DEEP LEARNING YOLO

RESEARCH SEMINAR UNIVERSITI SAINS ISLAM MALAYSIA

2024

UNIVERSITI

CERTIFICATE OF APPRECIATION

6. ANUGERAH PERKHIDMATAN CEMERLANG (APC)

2023

UNIVERSITY

7. PERSON-FOLLOWING TELEPRESENCE ROBOT USING YOLO DEEP LEARNING

International Expo of Innovation Product and System Design (INVIDE) 2023

2023

ANTARABANGSA

SILVER

8. PERSON-FOLLOWING TELEPRESENCE ROBOT USING YOLO DEEP LEARNING

INNOVATION BANK CHALLENGE 2023 (IBC2023)

2023

UNIVERSITI

SILVER

9. RUBBER TREE TRUNK HUMIDITY INSPECTOR

PERTANDINGAN REKACIPTA INOVASI INTERNASIONAL & NASIONAL 2022 (PRIIN 2022)

2022

ANTARABANGSA

SILVER

10. AUTONOMOUS PERSON-FOLLOWING TELEPRESENCE ROBOT USING DEEP LEARNING YOLO

NATIONAL INNOVATION AND INVENTION COMPETITION 2022 (NIICE 2022)

2022

KEBANGSAAN

SILVER

11. ANUGERAH E-PEMBELAJARAN - PLATFORM GOALS

2020

UNIVERSITY