

PROF. MADYA DR. ERNIE SUZANA BINTI ALI

PENSYARAH UNIVERSITI DS14

CONTACT

PHONE

6425

E-MAIL

ernie@usim.edu.my

FACULTY

Fakulti Sains Dan Teknologi

SUPERVISION

	COMPLETED	ONGOING
PhD	1	0
Master	0	0

AREAS OF EXPERTISE

- Bio Composites And Hybrid Composites
- Material Physics
- Other Nano Materials, Characterisation And Manufacturing N.e.c

ACADEMIC QUALIFICATION

- 2008 **PhD** - Sains Bahan
- 2003 **Master** - Sains Bahan
- 2001 **Bachelor** - Sains Bahan

RESEARCH

1. **ELUCIDATING THE STRUCTURE?FUNCTION RELATIONSHIPS IN BACTERIAL NANOCELLULOSE?PEG COMPOSITES FOR FOOD PACKAGING**
   2026 | GERAN PENYELIDIKAN FUNDAMENTAL | ON GOING | MAIN RESEARCHER
2. **SUSTAINABLE SMART HYBRID NANOCOMPOSITES POLYURETHANE USING 4D PRINTING**
   2022 | GERAN ANTARABANGSA | ON GOING | MAIN RESEARCHER
3. **MECHANISM OF SHAPE MEMORY PROPERTIES BY CELLULOSE NANOCRYSTAL (CNC) IN PALM OIL BASED POLYOL**
   2017 | GERAN ANTARABANGSA | COMPLETED | MAIN RESEARCHER
4. **SMART COATING FROM PALM OIL BASED ACRYLIC-POLYURETHANE**
   2016 | GERAN PENYELIDIKAN TRANSLASIONAL | COMPLETED | MAIN RESEARCHER
5. **SELF SENSING ACTUATOR MADE FROM THE CELLULOSE NANOCRYSTAL (CNC) AND BIO-BASED SHAPE MEMORY POLYURETHANE (SMPU)**
   2012 | GERAN KPT | COMPLETED | MAIN RESEARCHER

RESEARCH

6. BIOCOMPATIBILITY OF BIO-BASED SHAPE MEMORY POLYURETHANE NANOCOMPOSITE FOR BIOMEDICAL APPLICATION

2012 | GERAN PENYELIDIKAN PENTADBIR | COMPLETED | MAIN RESEARCHER

7. STUDY ON THE ACTUATING MECHANISM OF SELF SENSING ACTUATOR MADE FROM THE PALM OIL BASED SHAPE MEMORY POLYURETHANE (SMPU)

2011 | GERAN KPT | COMPLETED | MAIN RESEARCHER

8. PRELIMINARY STUDY OF CAPROLACTONE/PALM KERNEL OIL BASED POLYOL FOR POLYURETHANE BIOADHESIVE

2011 | GERAN PENYELIDIKAN FUNDAMENTAL | COMPLETED | MAIN RESEARCHER

9. FUNDAMENTAL STUDIES ON THE FABRICATION OF NANOPARTICLE MODIFIED GREEN POLYURETHANE ADHESIVES

2009 | GERAN KPT | COMPLETED | MAIN RESEARCHER

10. MECHANICAL AND THERMAL CHARACTERIZATION OF IN-HOUSE INSULATOR USING PALM OIL POLYOL AND KENAF, HIBIS

2009 | GERAN PENYELIDIKAN FUNDAMENTAL | COMPLETED | MAIN RESEARCHER

PUBLICATION

1. SUSTAINABLE SMART NANOCOMPOSITE POLYURETHANE

THE FUTURE WITH POLYURETHANES: POLYURETHANE INTERNATIONAL TECHNOLOGY FOUNDATION RESEARCH GRANT REPORT 7:2024.8 LISTING PAGE

2024 | JOURNAL | OTHER DATABASE | MAIN AUTHOR

2. CONTACT ANGLE PROPERTIES OF BIOACRYLIC PALM OIL BASED POLYOL FOR POLYURETHANE COATING

MATERIALS SCIENCE FORUM

2019 | JOURNAL | ERA | MAIN AUTHOR

3. CONTACT ANGLE PROPERTIES OF BIOACRYLIC PALM OIL BASED POLYOL FOR POLYURETHANE COATING

2018 3RD INTERNATIONAL CONFERENCE ON MATERIALS TECHNOLOGY AND APPLICATIONS (ICMTA 2018)

2018 | PROCEEDING | NON-INDEX | MAIN AUTHOR

4. HYBRID BIOFOAM USING CELLULOSE NANOCRYSTAL (CNC) AND NANOCLAY

MATERIALS TODAY: PROCEEDINGS

2017 | JOURNAL | SCOPUS | MAIN AUTHOR

5. ELECTRICAL CONDUCTIVITY OF BIOBASED SHAPE MEMORY POLYURETHANE FILLED WITH CNT

MATERIALS SCIENCE FORUM

2017 | JOURNAL | SCOPUS | MAIN AUTHOR

6. THE MECHANICAL PROPERTIES OF MEDIUM DENSITY RIGID POLYURETHANE BIOFOAM

MATEC WEB OF CONFERENCES

2016 | JOURNAL | SCOPUS | MAIN AUTHOR

PUBLICATION

7. ELECTRICAL CONDUCTIVITY OF BIOBASED SHAPE MEMORY POLYURETHANE FILLED WITH CNT

2016 4TH ASIA CONFERENCE ON MECHANICAL AND MATERIALS ENGINEERING (ACMME 2016)

2016 PROCEEDING NON-INDEX MAIN AUTHOR

8. HYBRID BIONANOCOMPOSITE MADE FROM PALM OIL

NATIONAL SYMPOSIUM OF POLYMERIC MATERIALS 2016 (NSPM 2106)

2016 PROCEEDING NON-INDEX MAIN AUTHOR

9. UTILIZATION OF PALM OIL TO SMART MATERIALS

POLYURETHANE

2016 CHAPTER IN BOOK MAIN AUTHOR

10. THE MECHANICAL PROPERTIES OF MEDIUM DENSITY RIGID POLYURETHANE BIOFOAM

2ND INTERNATIONAL CONFERENCE ON MECHANICAL PROPERTIES OF MATERIALS(ICMPM 2015)

2015 PROCEEDING NON-INDEX MAIN AUTHOR

11. SHAPE MEMORY BIOPOLYURETHANE

PIONEERING ISLAMIC SCIENCE, SPEARHEADING KNOWLEDGE

2014 CHAPTER IN BOOK MAIN AUTHOR

12. OER@USIM

OPEN EDUCATIONAL RESOURCES IN MALAYSIAN HIGHER LEARNING INSTITUTIONS

2013 CHAPTER IN BOOK MAIN AUTHOR

13. BIONANOCOMPOSITE HYBRID POLYURETHANE FOAM REINFORCED WITH EMPTY FRUIT BUNCH AND NANOCLAY

COMPOSITES: PART B

2012 JOURNAL WOS MAIN AUTHOR

14. CLAY REINFORCED HYPERBRANCHED POLYURETHANE NANOCOMPOSITES BASED ON PALM OIL POLYOL AS SHAPE MEMORY MATERIALS

ADVANCED MATERIALS RESEARCH

2012 JOURNAL WOS MAIN AUTHOR

15. CROSSLINKING OF PALM OIL POLYOL BASED SHAPE MEMORY POLYURETHANE

8TH ASIAN-AUSTRALASIAN CONFERENCE ON COMPOSITE MATERIALS (ACCM-8)

2012 PROCEEDING NON-INDEX MAIN AUTHOR

16. WEB 2.0@USIM

WEB 2.0 DI IPTA MALAYSIA

2012 CHAPTER IN BOOK MAIN AUTHOR

17. PROMISING MATERIALS MADE OF BIO-HYBRID POLYURETHANE

WORLD JOURNAL OF ENGINEERING

2011 JOURNAL WOS MAIN AUTHOR

PUBLICATION

18. PROMISING MATERIALS MADE OF BIO-HYBRID POLYURETHANE

ICCE ⓭ 19 - THE NINETEENTH ANNUAL INTERNATIONAL CONFERENCE ON COMPOSITES OR NANO ENGINEERING

2011 PROCEEDING NON-INDEX MAIN AUTHOR

19. CLAY REINFORCED PALM OIL POLYOL/ POLYURETHANE SHAPE MEMORY NANOCOMPOSITES

THE REGIONAL CONFERENCE OF SOLID STATE SCIENCE AND TECHNOLOGY (RCSSST)

2011 PROCEEDING NON-INDEX MAIN AUTHOR

20. BIONANOCOMPOSITE HYBRID FOAM:IT⓭S MECHANISME

THE INTERNATIONAL CONFERENCE FOR NANOMATERIALS SYNTHESIS AND CHARACTERIZATION 2011

2011 PROCEEDING NON-INDEX MAIN AUTHOR

21. NOVEL HYBRID NANOCOMPOSITE POLYURETHANE BIOFOAM: THERMAL AND FIRE BEHAVIOUR

22ND PACIFIC SCIENCE CONGRESS

2011 PROCEEDING NON-INDEX MAIN AUTHOR

22. HYBRID BIONANOCOMPOSITE POLYURETHANE FOAM

MALAYSIAN NATURAL FIBRES FOR DIVERSE BIO-BASED APPLICATIONS

2011 CHAPTER IN BOOK MAIN AUTHOR

23. BIONANOCOMPOSITE HYBRID POLYURETHANE FOAM REINFORCED WITH EMPTY FRUIT BUNCH AND NANOCLAY

7TH ASIAN-AUSTRALASIAN CONFERENCE ON COMPOSITE MATERIALS (ACCM-7)

2010 PROCEEDING NON-INDEX MAIN AUTHOR

24. HYBRID BIOFOAM AS AN INSULATOR

PROGRAMS AND ABSTRACT

2010 CHAPTER IN BOOK MAIN AUTHOR

CONSULTATION

1. JURI

MOSTI

2017 NATIONAL

2. JOURNAL REVIEWER - INDUSTRIAL CROPS AND PRODUCTS

2014 INTERNATIONAL

3. JOURNAL REVIEWER - MATERIALS LETTERS

ELSEVIER

2013 INTERNATIONAL

4. JOURNAL REVIEWER - INDUSTRIAL CROPS AND PRODUCTS

ELSEVIER

2013 INTERNATIONAL

CONSULTATION

5. E-LEARNING GUIDELINES FOR MALAYSIAN HEIS

KPM

2013 NATIONAL

AWARDS/RECOGNITION

1. ARTICLE ASSESSOR FOR AWARD

USIM

2025 UNIVERSITY

2. TRAINER / FACILITATOR

UITM

2025 INTERNATIONAL

3. TRAINER / FACILITATOR

PDRM

2025 NATIONAL

4. TRAINER / FACILITATOR

PDRM

2025 NATIONAL

5. ANUGERAH PEKERJA CEMERLANG 2022

2023 UNIVERSITY