


CURRICULUM VITAE

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|  | <p>Professor Dr. Hanafi Ismail [Fellow of Academy Science Malaysia] Professor and Dean, School of Materials & Mineral Resources Eng., USM Eng. Campus, 14300 Nibong Tebal, Penang, Malaysia. Tel: 604-5996113 HP: 012-5704601 Fax: 604-5941011 Email: ihanafi@usm.my</p> |
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ACADEMIC QUALIFICATION

1. Ph.D. Polymer Engineering, Loughborough University of Technology, UK, 1994
2. B. Sc. (Hons) Chemical Process Technology, Universiti Kebangsaan Malaysia (UKM), 1985.

AREAS OF INTEREST

1. Polymer Science and Engineering (Rubber, Plastic),
2. Rubber-Rubber Blends, Rubber-Plastic Blends, Plastic-Plastic Blend.
3. Thermoplastic Elastomer (TPE's),
4. Polymer Recycling and Polymer Composites

TEACHING EXPERIENCE

| No. | Course Code | Course Name | Year |
|-----|-------------|-----------------------------------------|------------|
| 1. | EBP 308/3 | Rubber: Processing and Product | Since 2002 |
| 2. | EBP 324/3 | Polymer Degradation and The Environment | Since 2002 |

PROFESSIONAL QUALIFICATION / MEMBERSHIP

1. Member of The Plastic and Rubber Institute of Malaysia (PRIM)
2. Member of The Malaysian Counselling Association (PERKAMA)
3. Life Member of The Electron Microscopy Society Malaysia (EMSM)
4. President Institute of Materials Malaysia (IMM) for Northern Region.
5. Fellow Institute of Materials Malaysia (FIMM)
6. Fellow of Academy Science Malaysia (FASc)
7. Member of the American Nano Society

PUBLICATIONS

(5 Selected Publications: 2012-2015)

1. H. Ismail, S.Z. Salleh, Z. Ahmad, "Properties of halloysite nanotubes-filled natural rubber prepared using different mixing methods", *Materials & Design*, vol.50(2013), 790-797 (IF=3.171).
2. Hanafi Ismail, Maryam Irani and Zulkifli Ahmad, "Starch-Based Hydrogels: Present

- Status and Applications”, International Journal of Polymeric Materials and Polymeric Biomaterials, vol.62(2013),411-420 (IF=2.784).
- Abdul Qader, S. T., Kannan, T. P., Ab Rahman, I., Ismail, H., & Mahmood, Z. (2015). Effect of different calcium phosphate scaffold ratios on odontogenic differentiation of human dental pulp cells. *Materials Science and Engineering: C*, 49, 225-233. (IF=2.736).
 - Nabil, H., Ismail, H., Azura, A.R., “Optimisation of accelerators and vulcanising systems on thermal stability of natural rubber/recycled ethylene-propylene-diene-monomer blends”, *Materials and Design*, vol. 53, (2014), 651-661 (IF=3.171).
 - Irani, M., Fan, M., Ismail, H., Tuwati, A., Dutcher, B., & Russell, A. G. (2015). Modified nanosepiolite as an inexpensive support of tetraethylenepentamine for CO₂ sorption. *Nano Energy*, 11, 235-246. (IF=10.211).

Chapter in Research Book

- Chantara T. Ratnam and Hanafi Ismail ‘Processing of Vinyl Polymers’ in Chapter 19 in *Handbook of Vinyl Polymers- Radical Polymerization, Process and Technology*, Ed. By Munmaya K. Mishra and Yusuf Yagci, CRC Press, 2009
- S. Norhahida, Ismail, H. and Ahmad Z. (2011). Preparation and characterization of glycerol plasticized sago starch-kenaf core fibers biocomposites. In: *SAGO (Metroxylan rottb) and its applications*. IIUM Press, Kuala Lumpur, pp. 104-114. ISBN: 9789674181635.
- Mohd Kahar Ab. Wahab, Nadras Othman and Hanafi Ismail ‘Thermoplastic Elastomers from High-Density Polyethylene/Natural Rubber/Thermoplastic Tapioca Starch: Effect of Different Dynamic Vulcanization’ Chapter 10 in *Natural Rubber Materials, Vol. 1: Blends and IPNs*, Ed. By Sabu Thomas, Chin Han Chan, Laly A. Pothen, Rajisha K.R. and Hanna J. Maria, RSC Publishing, 2014
- Yamuna Munusamy, Hanafi Ismail and Chantara Theyy Ratnam ‘Clay Reinforcement in Natural Rubber Based Blends: Micro and Nano Length Scales’ Chapter 17 in *Natural Rubber Materials, Vol. 1: Blends and IPNs*, Ed. By Sabu Thomas, Chin Han Chan, Laly A. Pothen, Rajisha K.R. and Hanna J. Maria, RSC Publishing, 2014.

RESEARCH GRANTS

(As Project Leader)

| No. | Project Title | Amount (RM) | Year | Source |
|-----|-------------------------------------------------------------------------------------------------------------|--------------|-----------|---------------------------------|
| 1. | Advanced Materials for Industrial Applications. | 867,100.00 | 2007-2010 | USM, Research University Grant. |
| 2. | Development and Production of OilZob- A Novel and Reactive Oil Adsorbent from Various Rubber Wastes –Amount | 1,989,000 | 2008-2012 | MTDC |
| 3. | Design and Performance for Green Composite: Inspiring Sustainable Alternative for Cost Effective Materials | 1,093,000.00 | 2011-2016 | Research University Cluster |

| | | | | Grant |
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| 4. | Biodegradable Polymer Film Based on Poly(Vinyl Alcohol) (PVA) And Tropical Fruit Waste Flour | 216,810.00 | 2010- 2013 | Research University Grant, USM |
| 5. | Recycled High Density Polyethylene (HDPE)/Thermoplastic Soya/Rice Husk Powder. | 46,305.00 | 2008-2012 | AUN/SEED-Net |
| 6. | The Potential of Wollastonite as A New Filler For Natural Rubber Compounds | 15,750.00 | 2012-2014 | AUN/SEED-Net |
| 7. | Study on Novel Oxo-biodegradable Soya Protein based Polyethylene | 45,580.00 | 2010- 2013 | FRGS |
| 8. | Potential of Oil Palm Ash as a New Filler in Natural Rubber Compounds | 183,504.00 | 2011-Sept 2013 | Science Fund |
| 9. | Development and Characterization of Antimicrobial Natural Rubber Latex Based Foam Rubber Products using Nano Materials | 171,000.00 | 2011-2014 | USM, Research University Grant. |
| 10 | Development of New Material Based on Natural Rubber/ Recycled Ethylene Propylene Diene Rubber (NR/R-EPDM). | 80,000.00 | 2012- 2015 | ERGS |
| 11 | Fundamental Study on Bentonite as a New Filler in Ethylene Propylene Diene Monomer (EPDM) : Study on the Vulcanization Kinetics and Reinforcement Mechanism | 57,050.00 | 2013- 2016 | FRGS |

POSTGRADUATE STUDENT SUPERVISION

PhD (Main Supervisor)

| No. | Name | Title | Status |
|-----|------------------------------|----------------------------------------------------------------------------------------------------------------------------|---------|
| 1. | Nor Fasiah Zaaba | Effect of Peanut Shells Powder Filled Recycled Polypropylene (PP) Composite | Ongoing |
| 2. | Hazwani Syaza Ahmad@ Sofa | Characterization and Properties of Natural Rubber/Recycled Acrylonitriles – Butadiene Rubber (NR/NBRr) Blends | Ongoing |
| 3. | Rohani Abdul Majid | Thermoplastic Cassava Starch Halloysite Nanocomposites | Ongoing |
| 4. | Indra Surya | Potensi Alkanolamida Sebagai Bahan Tambah Baru di dalam Sebatian Getah Asli dan Sebatian Getah Sintetik | |
| 6 | Siti Zuliana Salleh | Natural Rubber/Recycled Chloroprene Rubber (NR/rCR) Blends: Preparation and Properties | Ongoing |
| 7 | Siti Maryam binti Manshor | Irradition Modification of Polyvinyl Chloride (Pvc) / Ethylene-Vinyl Acetate (Eva) / Carbon Nanotubes (Cnt) Nanocomposites | Ongoing |
| 8 | Norjulia binti Ahmad Mahir | Rubber Seed Shell Powder as Filler in Natural Rubber Compounds | Ongoing |

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| 9 | Dalina binti Samsudin | Chemical and Physical Properties of Liquefied Coconut Coir Husk Novolac Resin | Ongoing |
| 10 | Faiezah binti Hashim | Preparation and Characterization Composite Materials Based on Ethylene Vinyl Acetate Copolymer, Natural Rubber and Mengkuang Leaves Fibre | Ongoing |
| 11 | Ahmad Fikri bin Abdul Karim | Preparation and Properties of Kenaf Fibre Filled Natural Rubber (NR) Foams | Ongoing |
| 12 | Noorulnajwa Diyana binti Yaacob | Development and Study of Polymeric Biocomposites From Agro-Waste | Ongoing |
| 13 | Pang Ai Ling | Preparation And Properties of Kenaf-Filled Linear Low Density Polyethylene/Poly (Vinyl Alcohol) Composites | Ongoing |

In addition to above ongoing Ph.D students, more than **28 Ph.D students were graduated

MSc – Research (Main Supervisor)

| No. | Name | Title | Status |
|-----|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------|---------|
| 1. | Shuhairiah binti Daud | A Study on Cure Characteristics and Mechanical Properties of NR/Butyl Blend | Ongoing |
| 2. | Nurus Sakinah Binti Che Mat | Vulcanization Kinetics, Mechanical and Aging Properties of Bentonite Filled Ethylene Propylene Diene Monomer (EPDM) Composites | Ongoing |

** More than **50 M.Sc** students were graduated