

TIER 5 – RESEARCH INITIATIVE GROUP (RIG)

Name of RIG	:	Orchestrated Polymer Research (OPoR) Group
Registration Code	:	
Tier	:	5
Leader	:	Assoc. Prof. Dr. Dzaraini Kamarun
CoRe	:	Frontier Materials and Industrial Application (FMIA)
Registered Faculty	:	Applied Sciences
Registration date (Senate Approval)	:	
UiTM Niche Area	:	Polymeric Materials, Fabrication & Synthesis and Applications
RIG Niche Area	:	Research on polymer materials, synthesis, characterization, composite fabrication and applications (industrial and biomedical)

BACKGROUND OF MEMBERS

BIL	NAMA	KELAYAKAN AKADEMIK	FAKULTI	BIDANG KEPAKARAN
1	ASSOC. PROF. DR. DZARAINI KAMARUN	PhD	Sains Gunaan	Polymer Synthesis and characterization, Polymer based biosensor
2	ASSOC. PROF. DR. ROZANA MOHD DAHAN	PhD	Sains Gunaan	Polymer Physics & Composites
3	ASSOC. PROF. DR. SITI ZALEHA SAAD	PhD	Sains Gunaan	Net shape processing of piezoelectric material, Nanocomposite compounding and fabrication
4	ASSOC. PROF. DR. RAMLAH MOHD TAJUDDIN	PhD	Kejuruteraan Sivill	Polymer-based Membrane Fabrication & Phytoremediation of Water
5	DR. NORAZURA IBRAHIM	PhD	Sains Gunaan	Polymer processing & technology
6	DR. ENGKU ZAHARAH ENGKU ZAWAWI	PhD	Sains Gunaan	Polymer composites



FMMI ACHIEVEMENT(2016-2017)

PENCAPAIAN	2016	2017
Master Degree – Enrolled/On-Going	7	8
Master Degree - Graduated	0	0
PhD – Enrolled/On-Going	17	13
PhD – Graduated	0	6
No. of research grants	4	4
Total value of research grants (RM)	200,000	137,000
Total publication (Indexed Journals)	11	11
Total publication (Non-indexed Journals)	2	2
IPR (Patent, Industrial design, Copyright)	0	0

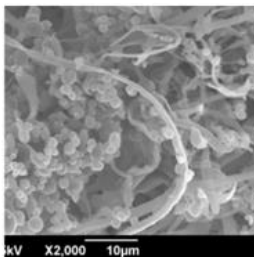
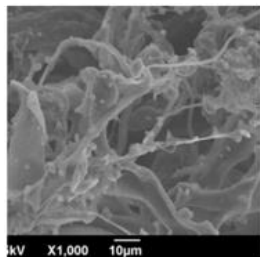
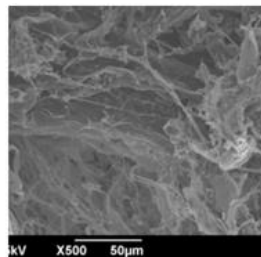
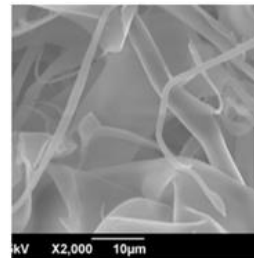
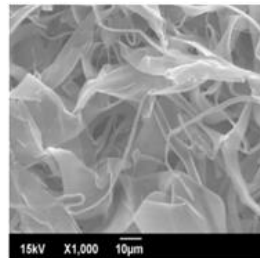
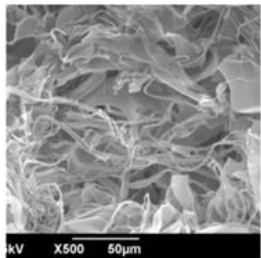
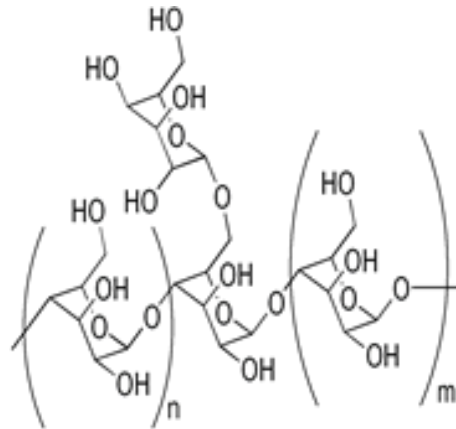
OTHER ACHIEVEMENT FMMI (2016-2017)

ACHIEVEMENT	2016	2017
NO. OF CONSULTANCY/ INDUSTRIAL LINKAGE/ COLLABORATION (National & International)	1	0
NO. OF MEMBERSHIP OF PROFESSIONAL BODIES AND ASSOCIATIONS (National & International)	5	8
NO. OF SPECIAL INVITATION/ APPOINTMENT/ EXPERTISE (National & International) incl. Keynote Speaker, Invited speaker, Thesis examiner, Judge, Reviewer, Panel, etc.)	22	16
NO. OF AWARDS/ RECOGNITION AND APPRECIATION (National & International)	3	7

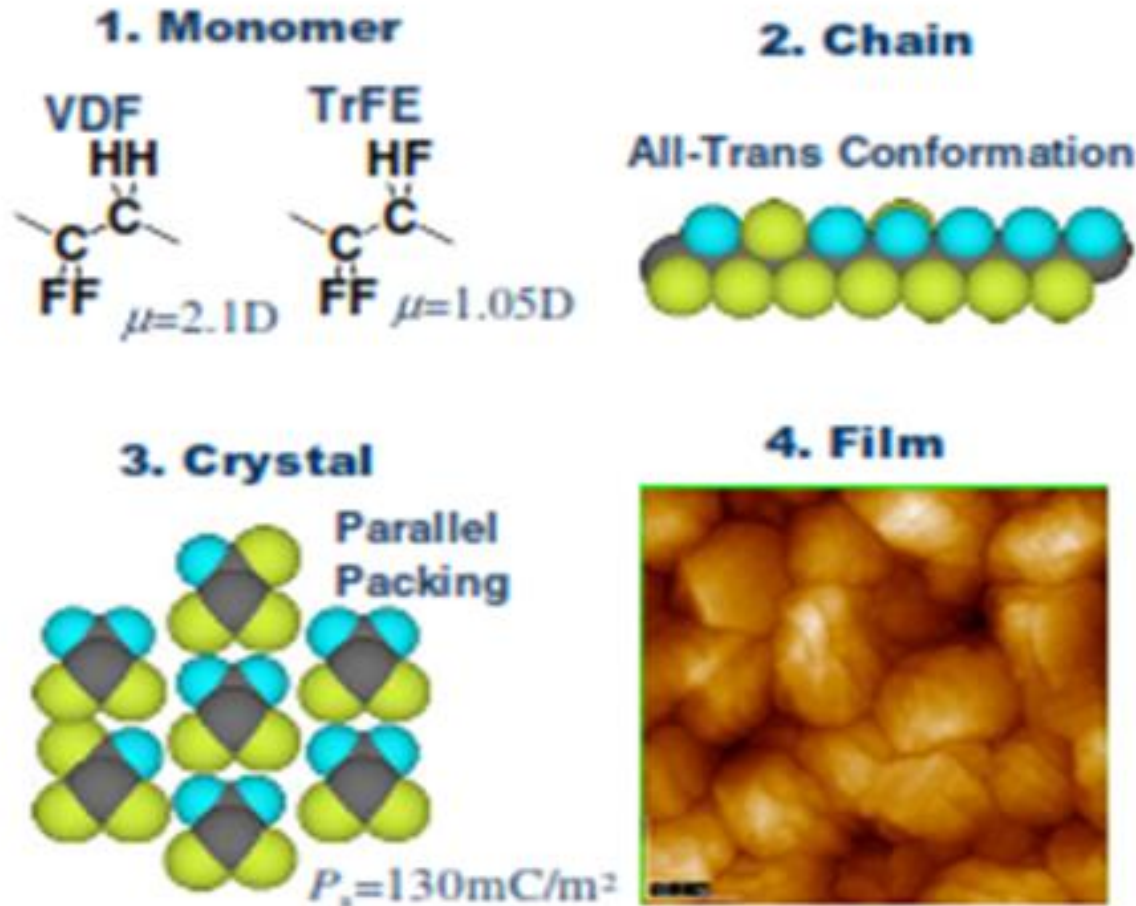
Orchestrated Polymer Research group is formed to foster research on polymer synthesis and fabrication, characterization for applications in industries and biomedical fields.

- Many activities emphasize on the following areas:
 1. Synthesis and modifications of natural and synthetic polymers
 2. Development of hybrid materials for applications as polymer composites in industrial and biomedical field
 3. Fabrication of wood plastic composites for precommercialization
 4. Silicon and rubber composite for bone replacement
 5. Silicon Nitride/Polypropylene Composite for knee cap application
 6. Extraction of biopolymers from kenaf and sugarcane bagasse for removal of heavy metal and oil absorption
 7. Desalination of seawater using nanofiltration membrane
 8. Development of ferroelectric properties of PVDF-TrFE incorporated with ZnO oxide and multi layered PVDF-TrFE /ZnO hybrid films
 9. Rubber processing & technology
 10. Latex blending – NR and synthetic latex

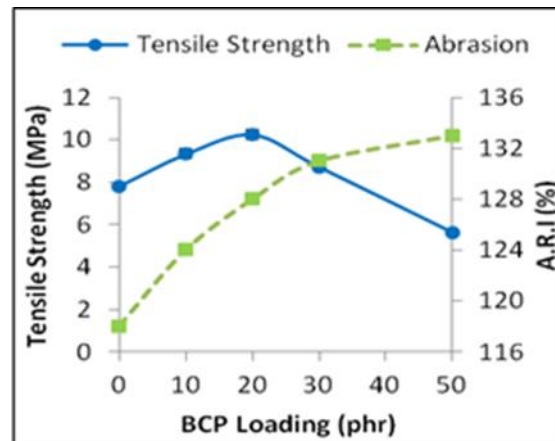
Galactomannan nanoparticles for drug delivery



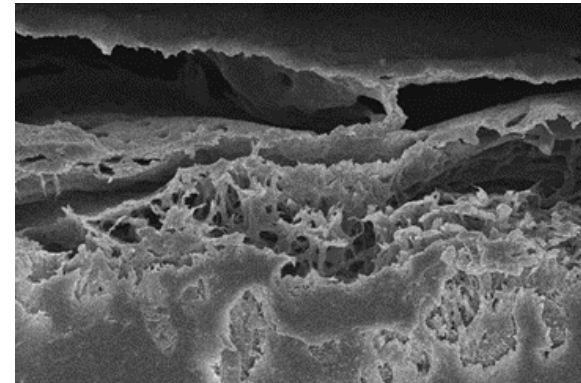
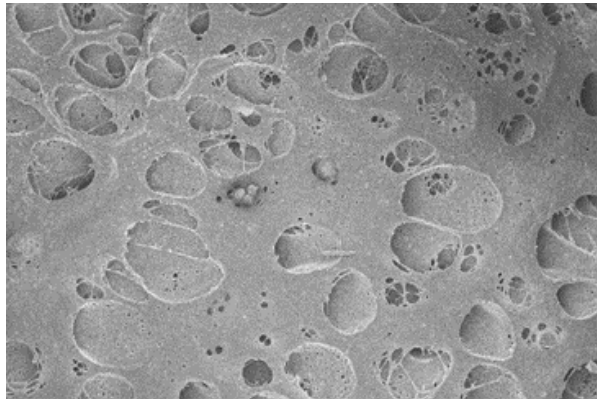
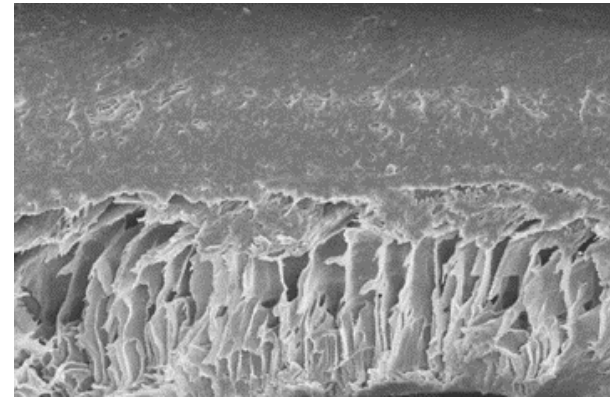
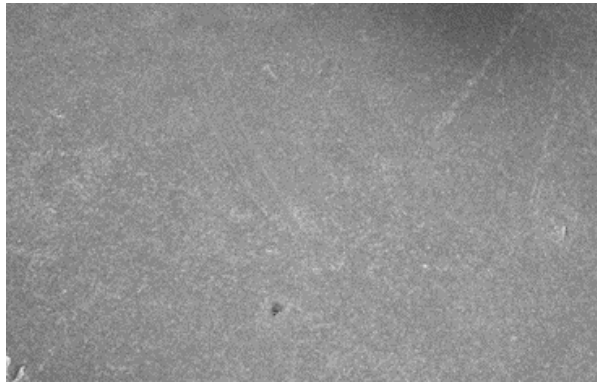
Fluoropolymer Nanocomposite Films for Ferroelectric Application



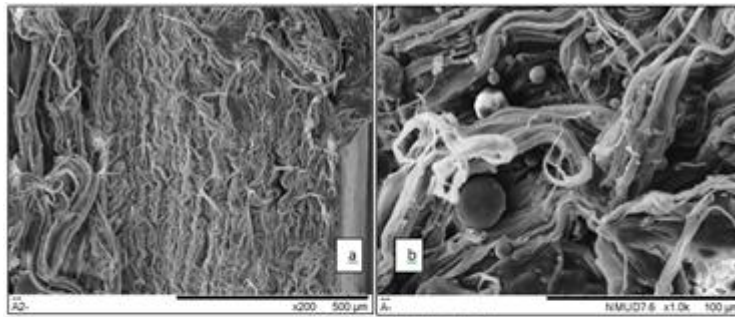
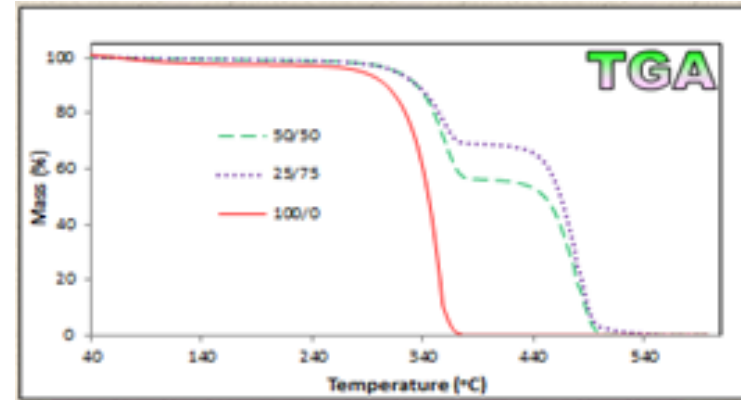
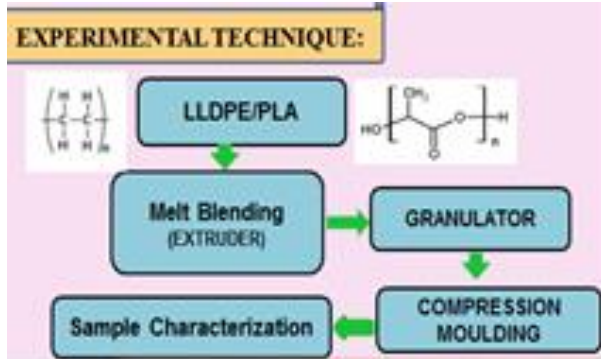
The potential of bamboo charcoal powders as reinforcing fillers for rubber composites



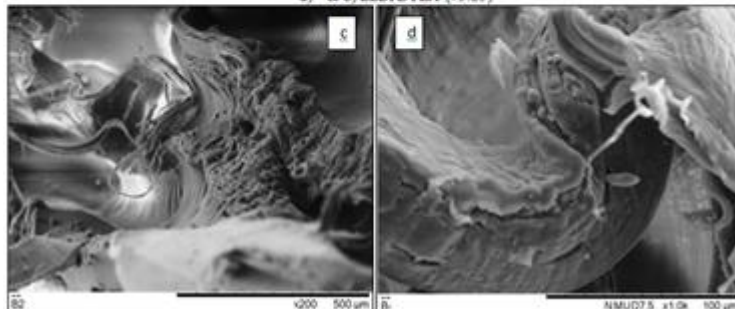
Membrane for Nutrients Reclamation from Kenaf Retted Wastewater



Properties of Linear Low Density Polyethylene/Poly (Lactic Acid) Blends



a) & b) LLDPE/PLA (75:25)



b) & d) LLDPE/PLA (50:50)

