

List of Potential Supervisor and Field of Expertise in FBKT

Established on : 01/03/2022

Effective from : 01/04/2023

Program	Field of Expertise		Potential Supervisor	Research Theme/ Keyword	
Materials Technology	Metallurgy	Corrosion/ Coating	Assoc. Prof. Dr. Mohamad Najmi Bin Masri (najmi.m@umk.edu.my)	1. Corrosion 2. Coating 3. Green Energy Materials	
		Powder Metallurgy / Composite Materials	Assoc. Prof. Dr. Mahani Binti Yusoff (mahani@umk.edu.my)	1. Metal recycling 2. Nanocomposite 3. Mechanical Alloying	
		Welding Metallurgy / Non-Destructive Testing	Assoc. Prof. Ts. Dr. Sarizam Bin Mamat (sarizam@umk.edu.my)	1. Microstructural observation (metal phase transformation) 2. TIG/MIG hybrid welding 3. Wire arc additive manufacturing (WAAM) 4. IMC formation in Al/steel dissimilar joining 5. Microbial Induced Corrosion (microstructural evaluation)	
	Ceramic	Electronic Materials / Advanced Ceramics	Assoc. Prof. Dr. Muhammad Azwadi Bin Sulaiman (azwadi@umk.edu.my)	1. Electronic Materials 2. Advanced Ceramics 3. Traditional Ceramics 4. IoT, Sensors and Computing	
		Electroceramic / Traditional Ceramic	Prof. Ir. Dr. Julie Juliewatty Binti Mohamed (juliewatty.m@umk.edu.my)	1. Electroceramic (Dielectric and Piezoelectric) 2. Traditional Ceramics	
		Materials Engineering / Advanced Materials	Dr. Norfadhilah Binti Ibrahim (nfadhilah@umk.edu.my)	1. Ion-exchanged of glass 2. Physical, mechanical and structural properties 3. Advanced materials	
	Polymer/ Composite	Polymer Composites / Wood Plastic Composites	Ts. Dr. Bashree Bin Abu Bakar (bashree.ab@umk.edu.my)	1. Polymer matrix composites (PMC) 2. Wood plastic composites (WPC) 3. Utilization of wood and non-wood agrowaste in thermoplastic/thermoset biocomposites. 4. Processing and characterization of PMC and WPC. 5. Fabrication and characterization of biodegradable composites.	
		Bio-composite / Agro-engineering	Dr. Nik Alnur Auli Binti Nik Yusof (alnurauli@umk.edu.my)	1. Bio-composite 2. Agro-engineering	
	Advanced Materials	Soft Matter Physics / Biomaterials	Dr. Asanah Binti Radhi (asanah@umk.edu.my)	1. Soft Matter Physics 2. Biomaterials	
		Superconductor / Semiconductor	Dr. Arlina Binti Ali (arlina@umk.edu.my)	1. Superconductor Materials 2. Semiconductor Materials 3. Advanced Materials	
		Advanced Materials / Electrochemical	Assoc. Prof. Dr. An'amt Bin Mohamed Noor (anamt@umk.edu.my)	1. Advanced Materials 2. Electrochemistry 3. Lignocellulosic materials 4. Sensor 5. Energy storage	
		Bio-materials	Nano composite / Biomaterials	Assoc. Prof. ChM. Ts. Nor Hakim Bin Abdullah (norhakimin@umk.edu.my)	1. Biodegradable packaging (Bioplastics) 2. Food coating and packaging 3. Applied Nanocellulose 4. Catalysis / Self-Assembled System 5. Material surface functionalisation 6. Optimization by Response Surface Methodology (RSM) 7. Artificial Neural Network (AI) using Matlab

Materials Technology		Thermoresponsive / Cell Delivery System	Dr. Nur Nabilah Binti Shahidan (nabilah@umk.edu.my)	1. Smart polymer 2. Biosensor 3. Delivery System 4. Tissue Engineering 5. Polymer synthesis 6. Biopolymer based Wastewater treatment	
	Energy	Water Analysis / Water & Wastewater Treatment	Assoc. Prof. Dr. Wan Mohd Faizal Bin Wan Ishak (wmfaizal.wi@umk.edu.my)	1. Water Analysis 2. Water and Wastewater Treatment 3. Environmental Management 4. Solid Waste Technology 5. Biomass Energy	
		Semiconductor / Advanced Materials	Dr. Hidayani Binti Jaafar (hidayani@umk.edu.my)	1. Semiconductor 2. Renewable Energy (Solar cell) 3. Artificial Intelligence 4. Advanced Materials	
		Chemical Engineering / Process System Engineering	Dr. Nik Nurul Anis Binti Nik Yusoff (anis.ny@umk.edu.my)	1. Chemical Engineering 2. Process System Engineering (Simulation and Optimization) 3. Renewable Energy (Biodiesel and Biohydrogen)	
		Heat and Mass Transfer	Ts. Dr. Muhammad Iqbal Bin Ahmad (iqbal.a@umk.edu.my)	1. Heat and Mass Transfer 2. Computational Fluid Dynamics (CFD) 3. Surface Mount Technology	
		Energy Technology / Chemical Engineering Technology	Dr. Ahmad Zul Izz Bin Fauzi (zulizzi.f@umk.edu.my)	1. Renewable Energy 2. Green Hydrogen 3. Machine Learning 4. Simulation and Process Modelling	
		Mineral	Materials Recycling Technology / Materials and Mineral Processing Technology	Ts. Dr. Teo Pao Ter (teopaoter@umk.edu.my)	1. Waste- to-Wealth 2. Materials Recycling Technology 3. Material and Minerals Processing Technology
	Environmental Chemistry / Applied Chemistry		Assoc. Prof. ChM. Ts. Dr. Abdul Hafidz Bin Yusoff (hafidz.y@umk.edu.my)	1. Environmental Chemistry 2. Applied Chemistry 3. Gold Processing	
	Biopharmaceutical and Nutraceutical Technology	Microbial Technology	Enzyme Technology	Assoc. Prof. Dr. Noor Azlina Bt Ibrahim (n_azlina@umk.edu.my)	1. Enzyme Technology 2. Molecular Biology 3. Structural Biology
			Applied Microbiology/ Molecular Biology	Ts. Dr. Ainihayati Bt Abdul Rahim (ainihayati@umk.edu.my)	1. Plant Growth-Promoting Bacteria 2. Biofertilizer 3. Bioremediation 4. Biosurfactant
Microbial Metal Transformation /Microbial Molecular Genetics			Assoc. Prof. Dr. Wee Seng Kew (sengkew@umk.edu.my)	1. Microb-Metal Electron Transfer 2. Microbial Influenced Corrosion 3. Bioleaching 4. GeoMicrobiology :Iron reducing Bacteria 5. Microbial Polysaccharides	
Biopharmaceutical and Nutraceutical Technology		Extraction & Separation Technology	Dr. Zubaidah Aimi Bt Abdul Hamid (zubaidahaimi.ah@umk.edu.my)	1. Extraction and Separation Technology 2. Plant Science & Anatomy	
		Bioactive Compounds	Dr. Wan Hasnidah Bt Wan Osman (hasnidah.osman@umk.edu.my)	1. Plant Bioactive Compounds 2. Enzyme Technology (Bioenergy) 3. Biological Wastewater Treatment 4. Optimization Process	
		Pharmacology/ Toxicology	Dr. Wan Suriyani Faliq Adeeba Bt Wan Ibrahim (suriyani.wi@umk.edu.my)	1. Pharmacology & Toxicologi Of Medicinal Plants 2. Molecular Biology & Biochemistry 3. Plant Biotechnology	
		Microbial Fermentation/ Bioreactor Design	Prof. Ir. Ts. Dr. Ahmad Ziad Bin Sulaiman (ziad@umk.edu.my)	1. Chemical Engineering 2. Microbial Fermentation 3. Bioreactor Design	

Bioprocess	Separation Process	Assoc. Prof. Ts. Dr.Mardawani Bt Mohamad (mardawani.m@umk.edu.my)	1. Separation Process 2. Extraction Technology 3. Modelling and Simulation 4. Environmental Chemistry 5. Agricultural Technology	
	Chemical Sensor/ Analytical Chemistry	Dr. Rosmawani Bt Mohammad (rosmawani@umk.edu.my)	1. Chemical Sensor and biosensor 2. Analytical Chemistry 3. Adsorption 4. Applied Chemistry	
	Bioprocess Engineering	Dr. Siti Roshayu Bt Hassan (roshayu.h@umk.edu.my)	1. Fermentation technology 2. Biotechnology 3. Bioseparation 4. Bioreactor design 5. Biological wastewater treatment	
	Downstream Processing	Assoc. Prof. Dr. Noor Fazliani Shorpawe (fazliani.s@umk.edu.my)	1. Microbial Fuel Cells 2. Membrane Technology 3. Fermentation 4.Process modeling 5.Separation Process 5.Bioreactor	
	Green Biotechnology	Bioenergy/ Green Material	Assoc. Prof. ChM. Ts. Dr. Wong Yee Ching (yeeching@umk.edu.my)	1. Bioplastic 2. Bioethanol 3. Biodiesel 4. Biomass Gasification 5. Cellulose Organohydrogels
Process Control	Quality Control	Dr Azfi Zaidi bin Mohammad Sofi (azfi.ms@umk.edu.my)	1. Statistical Process Control in Bioproses/ Bioproduct 2. Optimization of Experimental Design in Bioproses/ Bioproduct 3. Applied Mathematics	
Wood and Non Wood Product	Wood Composite	Assoc. Prof. Ts. Dr. Mohd Hazim Mohamad Amini (hazim.ma@umk.edu.my)	1. Bio-adhesives 2. Eco-composite 3. Biomass utilization	
		Dr. Nur Sakinah Mohamed Tamat (nursakinah.mt@umk.edu.my)	1. Biocomposite 2. Utilization of bioresources 3. Physical-mechanical properties	
	Wood Physic, Mechanic, Drying and Preservation	Dr. Andi Hermawan (andi@umk.edu.my)	1. Wood physic and mechanic 2. Wood-based composite 3. Wood drying and preservation	
	Wood and Non-wood Composite	Dr. Mohd Ezwan Bin Selamat (ezwan.s@umk.edu.my)	1. Bio-composite 2. Flame retardant composite 3. Bio-adhesive	
	Pulp and Paper	Dr. Boon Jia Geng (jia.geng@umk.edu.my)	1. Alpha cellulose 2. Bleaching 3. Fiber bonding	
	Wood Science and Biocomposite Technology	Dr. Lum Wei Chen (weichen.l@umk.edu.my)	1. Engineered Timber Products (Particleboard, CLT, Glulam, LVL etc.) 2. Green Building Materials 3. Decay Resistance; Dimensional Stability; Fire Performance 4. Formaldehyde Emission	
	Wood extractives	Biocomposite technology and design	Dr. Nor Izaida Ibrahim izaida.i@umk.edu.my	1. Nanocellulose application - Cellulose nanofibrills (CNF) 2. Wood product design 3. Wood Finishing / wood surface enhancement 4. Wood anatomy and characteristics
		Wood and non-wood chemistry	Assoc. Prof. Ts. Dr. Sitti Fatimah Mhd. Ramle (fatimah.m@umk.edu.my)	1.Plant extraction 2.Antioxidant / Antifungal / Antimicrobial 3.Wood and Non-wood Chemistry
Forest Resources Technology				

	Wood Noon W	Nano Emulsion	Dr. Nurul Akmar Che Zaudin (akmar@umk.edu.my)	<ol style="list-style-type: none"> 1. Nanoemulsion 2. Nanoemulgel 3. Applied Chemistry
		Organic and inorganic compound	ChM. Ts. Dr. Nadiah Ameram (nadiyah@umk.edu.my)	<ol style="list-style-type: none"> 1. Thiourea compound using single crystal XRD 2..Applied Chemistry 3. Heterogenous silica as a catalyst

