

### List of Potential Supervisor and Field of Expertise in FBKT

Established on : 01/03/2022

Effective from : 01/03/2022

Program	Field of Expertise	Potential Supervisor	Research Theme/ Keyword	
<b>Materials Technology</b>	<b>Metallurgy</b>	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. Powder Metallurgy 3. Metal Matrix Composite 4. Mechanical Alloying
		Welding Metallurgy / Non-Destructive Testing	Ts. Dr. Sarizam Bin Mamat (sarizam@umk.edu.my)	1. Microstructural observation 2. TIG/MIG hybrid welding 3. Wire arc additive manufacturing 4. IMC formation in Al/steel dissimilar joining
	<b>Ceramic</b>	Electronic Materials / Advanced Ceramics	Assoc. Prof. Dr. Muhammad Azwadi Bin Sulaiman (azwadi@umk.edu.my)	1. Electronic Materials 2. Advanced Ceramics
		Electroceramic / Traditional Ceramic	Assoc. 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
	<b>Polymer/ Composite</b>	Polymer Composites / Wood Plastic Composites	Ts. Dr. Bashree Bin Abu Bakar (bashree.ab@umk.edu.my)	1. Polymer Composites 2. Wood Plastic Composites
		Bio-composite / Agro-engineering	Pn. Nik Alnur Auli Binti Nik Yusof (alnurauli@umk.edu.my)	1. Bio-composite 2. Agro-engineering
	<b>Advanced Materials</b>	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 2. Semiconductor
		Advanced Materials / Electrochemical	Dr. An'amt Bin Mohamed Noor (anamt@umk.edu.my)	1. Advanced Materials 2. Electrochemistry 3. Lignocellulosic materials 4. Sensor 5. Energy storage

<b>Materials Technology</b>	<b>Bio-materials</b>	Nano composite / Biomaterials	ChM. Ts. Nor Hakimin Bin Abdullah (norhakimin@umk.edu.my)	<ol style="list-style-type: none"> <li>1. Biodegradable packaging (Bioplastics)</li> <li>2. Nanocellulose extraction from plant</li> <li>3. Catalysis / Self-Assembled System</li> <li>4. Material surface functionalization</li> <li>5. Optimization by Response Surface Methodology (RSM)</li> </ol>
		Thermoresponsive / Cell Delivery System	Dr. Nur Nabilah Binti Shahidan (nabilah@umk.edu.my)	<ol style="list-style-type: none"> <li>1. Thermoresponsive</li> <li>2. Cell Delivery System</li> </ol>
	<b>Energy</b>	Water Analysis / Water & Wastewater Treatment	Assoc. Prof. Dr. Wan Mohd Faizal Bin Wan Ishak (wmfaizal.wi@umk.edu.my)	<ol style="list-style-type: none"> <li>1. Water Analysis</li> <li>2. Wastewater Treatment</li> </ol>
		Semiconductor / Advanced Materials	Dr. Hidayani Binti Jaafar (hidayani@umk.edu.my)	<ol style="list-style-type: none"> <li>1. Semiconductor</li> <li>2. Advanced Materials</li> </ol>
		Chemical Engineering / Process System Engineering	Dr. Nik Nurul Anis Binti Nik Yusoff (anis.ny@umk.edu.my)	<ol style="list-style-type: none"> <li>1. Chemical Engineering</li> <li>2. Process System Engineering (Simulation and Optimization)</li> <li>3. Renewable Energy</li> </ol>
		Composite Material / CAD CAM	Ts. Dr. Mazlan Bin Mohamed (mazlan.m@umk.edu.my)	<ol style="list-style-type: none"> <li>1. Heat transfer (Simulation CFD; ANSYS - Fluent)</li> <li>2. Advanced Materials (Graphene application)</li> </ol>
		Heat and Mass Transfer	Dr. Muhammad Iqbal Bin Ahmad (iqbal.a@umk.edu.my)	<ol style="list-style-type: none"> <li>1. Heat and Mass Transfer</li> <li>2. Computational Fluid Dynamics (CFD)</li> </ol>
	<b>Mineral</b>	Materials Recycling Technology / Materials and Mineral Processing Technology	Ts. Dr. Teo Pao Ter (teopaoter@umk.edu.my)	<ol style="list-style-type: none"> <li>1. Waste- to-Wealth</li> <li>2. Materials Recycling Technology</li> <li>3. Material and Minerals Processing Technology</li> </ol>
		Environmental Chemistry / Applied Chemistry	ChM. Ts. Dr. Abdul Hafidz Bin Yusoff (hafidz.y@umk.edu.my)	<ol style="list-style-type: none"> <li>1. Environmental Chemistry</li> <li>2. Applied Chemistry</li> <li>3. Gold Processing</li> </ol>

<b>Bioindustrial Technology</b>	<b>Microbial Engineering Technology</b>	Enzyme Technology	Assoc. Prof. Dr. Noor Azlina Bt Ibrahim (n_azlina@umk.edu.my)	1. Enzyme Technology 2. Molecular Biology 3. Structural Biology
		Molecular Microbiology/ Genetic Engineering	Ts. Dr. Ainihayati Bt Abdul Rahim (ainihayati@umk.edu.my)	1. Biosurfactant 2. Biofertilizer 3. Bioremediation
		Microbial Metal Transformation	Dr. Wee Seng Kew (sengkew@umk.edu.my)	1. Microb-Metal Electron Transfer 2. Microbial Influenced Corrosion 3. Bioleaching 4. GeoMicrobiology
	<b>Biopharmaceutical and Nutraceutical Technology</b>	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. Wastewater Treatment
		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
	<b>Bioprocess</b>	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
		Separation Process	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. Rosmawati 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. Bioprocess Engineering 2. Biotechnology 3. Bioseparation 4. Bioreactor design 5. Biological wastewater treatment
		Downstream Processing	Dr. Noor Fazliani Shorpawe (fazliani.s@umk.edu.my)	1. Microbial Fuel Cells 2. Membrane Technology 3. Fermentation
	<b>Green Biotechnology</b>	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

<b>Forest Resources Technology</b>	<b>Wood and Non Wood Product</b>	Wood Composite	PM. 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 Drying and Preservation	Dr. Andi Hermawan (andi@umk.edu.my)	1. Wood physic and mechanic 2. Wood-based composite 3. Wood drying
		Wood Machining	Ts. Dr. Sharizal Ahmad Sobri CEng MIET (sharizal.s@umk.edu.my)	1. CNC tool path & tool bit impact 2. Machining quality 3. Unconventional machining
		Pulp and Paper	Dr. Boon Jia Geng (jia.geng@umk.edu.my)	1. Alpha cellulose 2. Bleaching 3. Fiber bonding
	<b>Wood Non Wood extractives</b>	Wood and non-wood chemistry	Ts. Dr. Sitti Fatimah Mhd. Ramle (fatimah.m@umk.edu.my)	1.Plant extraction 2.Antioxidant 3.Antimicrobial
		Nano Emulsion	Dr. Nurul Akmar Che Zaudin (akmar@umk.edu.my)	1. Nanoemulsion 2. Nanoemulgel 3. Applied Chemistry
		inorganic	Dr. Nadiah Ameram (nadiyah@umk.edu.my)	1. Synthesis and characterization of crystal structure 2. Extraction of silica from rice husk 3. Biomass
	<b>Biomass Energy</b>	Wood Fuel Pallet	En. Mohd Sukhairi Mat Rasat (sukhairi@umk.edu.my)	1. Forest Product 2. Biomass energy conversion 3. Thermochemical/ Torrefaction