

# WAN KHARTINI BINTI WAN ABDUL KHODIR



- KULLIYAH OF SCIENCE
- IIUM Kuantan Campus
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## ACADEMIC QUALIFICATION

- Ph.D in Materials Engineering & Structure
- Bachelor of Science
- Master of Science (Applied Physics)

## TEACHING RESPONSIBILITIES

ANALYTICAL SPECTROSCOPY	2014/2015 2018/2019
ANALYTICAL CHEMISTRY	2015/2016
CONCEPTS IN PHYSICS	2013/2014
DRUG DELIVERY & APPLICATION	2017/2018 2018/2019 2019/2020 2020/2021
DRUG DELIVERY SYSTEMS	2012/2013
DRUG DOSAGE FORM	2015/2016 2016/2017 2017/2018 2018/2019 2019/2020 2020/2021
EMULSIFIERS AND SURFACTANTS	2019/2020 2020/2021
FINAL YEAR PROJECT I	2020/2021
FINAL YEAR PROJECT II	2020/2021
HEALTH RISK ASSESSMENT	2016/2017 2017/2018 2019/2020 2020/2021
INDUSTRIAL HYGIENE	2016/2017 2017/2018
INDUSTRIAL PHARMACY AND REGULATIONS	2012/2013 2013/2014
OCCUPATIONAL HEALTH	2018/2019
OCCUPATIONAL SAFETY	2015/2016 2016/2017
OCCUPATIONAL, SAFETY AND HEALTH LEGISLATION AND MANAGEMENT	2017/2018
ORGANIC CHEMISTRY	2012/2013
PHARMACEUTICAL QUALITY ASSURANCE	2012/2013
PHYSICAL CHEMISTRY I	2015/2016

POLYMER CHEMISTRY	2014/2015 2015/2016 2016/2017 2017/2018 2018/2019 2019/2020 2020/2021
PROJECT SEMINAR	2012/2013
RESEARCH METHODOLOGY	2018/2019 2019/2020 2020/2021

## RESEARCH PROJECTS

### In Progress

- 2020 - Present** Short Term Project: The Formulation for Wound Healing Hydrogel Polymer-Based Spray
- 2019 - Present** High Performance Hydrophobic Drug Carrier from Polycaprolactone-b-poly(ethylene glycol) Star-shaped Polymers Hydrogel Blend As Potential for Wound Healing Application
- 2019 - Present** Development of smart wound dressing functionalized PCL/graphene oxide (PCL/GO) nanofibers for potential wound healing.
- 2019 - Present** PRODUCTION OF HYDROGEL SHEET CONTAINING CENTELLA ASIATICA (PEGAGA) FOR WOUND DRESSING APPLICATION
- 2019 - Present** Knowledge Transfer on Sustainable Waste Management to School Teachers: Towards Establishment of Eco-School
- 2019 - Present** Knowledge Transfer to School Teachers and Technical Staff to Enhance Laboratory Skills and Management to Promote Sustainable Lab Practices
- 2018 - Present** Bacteria-surface interaction of chemically modified Polycaprolactone/Chitosan nanofibers as the antimicrobial application.
- 2018 - Present** Bacteria-surface interaction of chemically modified Polycaprolactone/Chitosan nanofibers as the antimicrobial application.

### Completed

- 2013 - 2016** Physico-Chemical and Biocompatibility Studies of Gentamicin Loaded Polycaprolactone - Collagen Based Protein Nanofiber
- 2013 - 2017** Development of Nanofibrous Wound Dressing Membrane via Electrospinning
- 2013 - 2017** Cell-Scaffold Interaction using Water-Soluble Calixarene Functionalized Polycaprolactone/Gelatin Nanofiber for the Improvement of Cell Adhesion

## PUBLICATIONS

### Article

- 2019** [Synthesis and characterization of star-shaped \(PCL-B-PEG\) as potential electrospun microfibres.](#) Sains Malaysiana , 48 (10) pp.2265-2275

- 2018** [science@iium](#). science@iium (December 2018) pp.1-40
- 2018** [Encapsulation and characterization of gentamicin sulfate in the collagen added electrospun nanofibers for skin regeneration](#). Journal of Functional Biomaterials , 9 (2) pp.1-9
- 2018** [Science@iium](#). science@iium pp.1-40
- 2017** [Electrospun polycaprolactone nanofibres decorated by drug loaded chitosan nano-reservoirs for antibacterial treatments](#). Nanotechnology , 28 (50) pp.1-9
- 2013** [Trapping tetracycline loaded nanoparticles into polycaprolactone fiber networks for periodontal regeneration therapy](#). Journal of Bioactive and Compatible Polymer , 28 (3) pp.258-273
- 2012** [Biodegradable microparticles and nanoparticles by electrospaying techniques](#). Journal of Applied Biomaterials & Functional Materials , 10 (3 (September-December)) pp.191-196

#### **Conference or Workshop Item**

- 2019** [Release study on electrospun PVA/chitosan-based nanofibers loaded with Centella Asiatica extracts](#). In: **33rd Scientific Meeting Malaysian Society Of Pharmacology & Physiology (MSPP) 2019**
- 2018** [Comparison of the essential oil components in fresh peels of lime \(citrus aurantifolia\) extracted with supercritical fluid extraction and other three traditional extraction methods](#). In: **International Conference of Analytical Sciences (SKAM31)**
- 2018** [Synthesis of four arms star polymer for hydrogel formulation](#). In: **31st International Conference of Analytical Sciences 2018 (SKAM31)**

#### **Book**

##### **Book Section**

- 2018** [Additive electrospaying for scaffold functionalization](#). In: **Electrofluidodynamic Technologies (EFDTs) for Biomaterials and Medical Devices: Principles and Advances** Elsevier Inc. . ISBN 978-008101746-3 / 978-008101745-6 , pp.179-203