



DR. HIDAYATUL AINI BINTI ZAKARIA



Senior Lecturer
(DS51)



PhD (Queensland),
BEng (UM)



+ (609) 668 3815



hidayatul@umt.edu.my

After graduating with a Bachelor Degree in Bio-medical Engineering (Honours) from Universiti Malaya, I worked at Hospital Sultanah Nur Zahirah, Kuala Terengganu as a Bio-medical engineer. I went on to graduate with a PhD in Bio-Engineering from Australian Institute for Bio-engineering and Nanotechnology, at The University of Queensland in Australia in 2011.

Now my current research fits into three areas:

Terahertz spectroscopy of fibrillar proteins and corrosions in ship hulls. These projects aims to understand the physical chemistry of the protein hydration layer and to determine the effectiveness of terahertz spectroscopy in detecting corrosions under several layer of paints respectively.

The application of piezoelectric sensor in generating energy from ocean waves as well as a detector probe in gauging the intensity of phlegm in human lungs infected with pneumonia-related diseases. Engineering the construction of an optimised vaccine for pneumonic pasteuriosis with virus-like particles as the vaccine carrier to optimise the efficiency of the proposed vaccine.

Expertise Area

Main Field	: Bio-medical Engineering
Sub Field	: Material characterizations and renewable energy
Specialization	: Terahertz, protein and piezoelectricity

Professional Membership

- Asia-Pacific Chemical, Biological and Environmental Engineering Society, Member, May 2012 - Present

Networking & Collaboration

- Photonics Research Centre, Universiti Malaya, Kuala Lumpur
- The Bio-Frontiers Institute, University of Colorado, United States of America
- Centre for Bio-Molecular Engineering, Australian Institute for Bio-engineering and Nanotechnology, The University of Queensland, Australia.

Publication Reference

- Google Scholar Citations - Dr. Hidayatul Aini Zakaria <http://orcid.org/0000-0002-0026-2372>