

**HALIMAH MOHAMED KAMARI**  
**Ph.D. (Universiti Putra Malaysia)**

Professor Dr.  
Department of Physics  
Faculty of Science  
Tel-Office: 03 89466657  
Fax: 03 89454454  
halimahmk@upm.edu.my

**EXPERTISE**

MATERIALS SCIENCE/PHYSICS DIELECTRIC

Professor Dr. Halimah Mohamed Kamari major research areas include Ultrasonic nondestructive testing (NDT) for complete characterization of materials such as biological glass, tropical woods and nanomaterials; dielectric physics and applied optics. She has authored and co-authored more than 180 articles in various international and national journals. She has also been invited as a referee/reviewer for national and international journals. She has received more than 10 research grants including those from Malaysian Ministry of Higher Education, Malaysian Ministry of Science, Technology and Innovation and Putra Grant UPM. She has supervised and co-supervised more than 30 PhD and 30 MSc postgraduate students. She is currently the life member, fellow and deputy treasurer of the Malaysian Solid State Science and Technology Society. She is also member of Society of Glass Technology UK. She is the recipient of numerous awards from the faculty and university such as the Excellent Service Award and the Putra Teaching Award Finalist (Science and Technology).

**CURRENT RESEARCH INTEREST:****• Fabrication of Glass (Phosphate, Borate, Tellurite, Metallic, Chalcogenide and Silica based glass)**

Characterization of physical and elastic properties of glass. The main focus is on microstructural studies, the effect of modifier and doping of the materials to the glass properties. Correlation between experimental values and calculated values of elastic moduli using elastic model such as bond compression model and Makishima-Mackenzie model is also investigated. The electrical, optical and magnetic properties of glass system are also investigated.

**• Ultrasonic Properties of various species of tropical wood**

Ultrasonic technique is a versatile tool for investigating the changes in microstructure, deformation process and mechanical properties of materials. The ultrasonic waves are closely related with elastic and inelastic properties of materials.

**• Dielectric Physics**

Dielectric characterization of glass, wood, palm oil and SLS based.

**• Nanomaterials**

Fundamental theory and its applications of metallic nanostructures, in particular metal nanoparticles and nanocrystals. Synthesis of nanoparticles using gamma radiation and simple low-temperature thermal methods. Characterization using high resolution spectroscopy instruments such as UV-Vis., SEM, TEM, XRD, FTIR, PL, and ESR. Effect of nanoparticles on optical, elastic, electrical properties of materials.

**LINK TO POSTGRADUATE FIELD OF STUDY:**

GLASS, CERAMICS, NANOSCIENCE, MATERIALS SCIENCE, FIBER GLASS

**ADDITIONAL INFORMATION:**