# Physics

# ZAINAL ABIDIN TALIB Ph.D. (University of Southern Illinois)

Professor Dr. Department of Physics Faculty of Science Tel-Office: 03 89466601 Fax: 03 89454454 zainalat@upm.edu.my

## EXPERTISE MATERIALS PHYSICS



Prof. Dr. Zainal Abidin Talib leads the Electrical Properties of Matter Laboratory at the Faculty of Science, UPM Serdang. His research interests encompass a broad area involving phonon-electron transport, dielectrics physics and applied optics. He has received more than 10 research grants including those from Malaysian Ministry of Higher Edu-cation, Malaysian Ministry of Science, Technology and Innovation and Toray Foundation.

Prof. Zainal has authored and co-authored more than 150 articles in various international and national journals. He has also been invited as a referee/reviewer for several national and international journals. He is the recipient of numerous awards from the faculty and university such as the Excellent Service Award and the Vice Chancellor Award (Teaching). Prof. Dr. Zainal Abidin Talib is currently the Dean of Faculty of Science. He is also a fellow and the current treasurer (2011-2013) of the Malaysian Solid State Science and Technology Society.

### **CURRENT RESEARCH INTEREST :**

Exploring new methods for optimizing the Se-based semiconductor structures by replacing the parameters to be optimized by independent variables without constraints. We model the processing procedure, structural, optical, electrical and thermal as a function of standardize parameters for material quality and device performance.

Investigating the electrical characteristics of polypyrrole/montmorillonite clay (PPy/MMT) nanocomposite. The study investigates the temperature dependences of the conductivity of PPy and PPy/MMT clay doped with FeC13 and the relations between the variations in conduction mechanism with the doping level.

### LINK TO POSTGRADUATE FIELD OF STUDY:

**ADDITIONAL INFORMATION:**