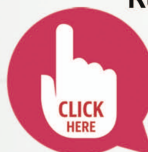


REGISTRATION IS NOW OPEN
for the Revealing the Mysteries
of Solid State Materials Workshop

Register using our google form,
then complete your payment.

<http://bit.ly/SSMW2019>



REGISTER

REGISTRATION FEES

RM350
/participant

**GET A FREE
FTIR ANALYSIS**
when you pay your
registration fee

CONTACT

SSM Secretariat
Department of Chemistry
Faculty of Science
Universiti Putra Malaysia
43400 UPM Serdang
Selangor, Malaysia.



+603 97693236



ssmw.upm@gmail.com

PAYMENT METHODS

OPTION 1: BANK DRAFT/CHEQUES

Made payable to
"BENDAHARI UNIVERSITI PUTRA MALAYSIA"

Please send the bank draft/cheque to:

SSM Secretariat
Department of Chemistry
Faculty of Science
Universiti Putra Malaysia
43400 UPM Serdang
Selangor, MALAYSIA.

OPTION 2 ELECTRONIC FUNDS TRANSFER (EFT) AND CREDIT CARD

Beneficiary Name ► BENDAHARI
UNIVERSITI PUTRA MALAYSIA

Bank name ► CIMB Bank Berhad

Address ► Ground Floor, Block B,
Bahagian Pusat Pelajar,
Universiti Putra Malaysia,
43400 UPM Serdang,
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Account No. ► **8002151963**

SWIFT Code ► **CIBBMYKL**

Payment Reference ► **Full name of participant and
ssmw2019**

OPTION 3 VOT (FOR UPM STAFF/STUDENTS ONLY)

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REVEALING THE MYSTERIES OF SOLID STATE MATERIALS

SPEAKER

Prof Ian Scowen
University of Lincoln



5 - 6th November 2019
Bilik Saintis Gemilang, Faculty of Science,
Universiti Putra Malaysia

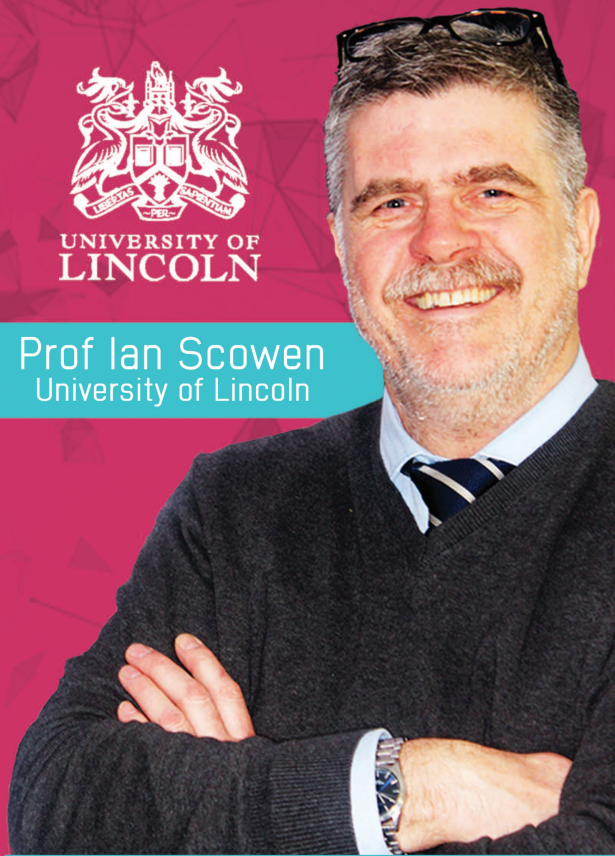
ORGANISED BY:
DEPARTMENT OF CHEMISTRY
FACULTY OF SCIENCE



IN COLLABORATION WITH:
 ROYAL SOCIETY
OF CHEMISTRY



Prof Ian Scowen
University of Lincoln



SPEAKER'S BACKGROUND

Professor Ian Scowen is a solid state chemist with over 30 years of experience in solid state research and its implementation in pharma, forensic, environmental and other industry contexts.

This workshop offers expert guidance and an opportunity to engage in collaborative study with the University of Lincoln UK.

DAY 1

INTRODUCTION AND DIFFRACTION METHODS

- ▶ **Introduction to Solid State Materials**
 - Fundamentals of Solid State Materials
 - Application areas: Chemical, Pharmaceutical, Geosciences, Agri-Sciences, Forensic
 - Strategies in Analysis of Solid State Materials
- ▶ **Diffraction Methods**
 - X-Ray Diffraction and its application
 - Phase Identification implementing open source database resources
 - Phase Quantification Including implementing open source analysis software
 - Case Study Results and Discussion

DAY 2

THERMAL AND SPECTROSCOPIC METHODS

- ▶ **Thermal Methods**
 - Calorimetry and Gravimetry
 - Diagnosing solid state transformations of materials
 - Data analysis including implementation of open source software
 - Case study results and discussion
- ▶ **Spectroscopic Methods**
 - Infra-red and Raman spectroscopy
 - Identification of molecular materials including implementing open source analysis software
 - Microspectroscopy analyzing heterogenous materials and surfaces
 - Case study results and discussion

A Two-Day Practical Workshop

- ▶ Strategies for analysis of solid state materials
- ▶ Implementing open source resources to support materials research
- ▶ Collaborative case studies with hands-on workshops

Apply for a collaborative case study:

- ▶ Diagnostic study design
- ▶ Application of one or more Diffraction, Spectroscopic or Thermal Experiments
- ▶ Step-by-step support for data interpretation and analysis

WHO SHOULD ATTEND?

Students

Analytical & Forensic Scientists

Laboratory Officers

Project Scientists

Government Expert Witnesses

Commercial Managers

Geologists

Lecturers

Police