



Dates : 15 & 16 May 2012 (Tuesday & Wednesday)

Time : 9.00 a.m. – 5.00 p.m.

Venue : Kompleks EUREKA, Universiti Sains Malaysia, Penang.

WHO SHOULD ATTEND?

Technical and non-technical personnel (technicians, engineers, managers, and decision makers) who are working in semiconductor, electrical and electronic industries as well as industries involve in design, research and development of electronic materials.

Previous Participants:

- Motorola Technology Sdn. Bhd., Penang.
- Avago Technologies (Malaysia) Sdn. Bhd., Penang.
- Philips Lumileds Lighting Company Sdn. Bhd., Penang.
- Universiti Teknologi Mara (UiTM).
- Universiti Pertahanan Nasional Malaysia (UPNM).

in collaboration with:

INTRODUCTION

Engineering appliances and gadgets are dominating the life of human being. Therefore, it is a need to understand the characteristics of engineering materials being used to produce these products. The materials that are being selected must fulfil some of the basic requirements. To design, engineer, improve, and develop any of these products, it is essential to understand the properties of materials. In this “easy-to-follow” and “easy-to-understand” training course, engineering materials properties will be elaborate in detail.

COURSE OBJECTIVES

Upon completion of this training course, participants should be able:

1. To explain concepts related to electrical, thermal, optical, magnetic, dielectric, superconductivity properties.
2. To correlate theory and principle of solid state materials with their engineering applications.
3. To suggest engineering materials for certain engineering applications.

REGISTRATION FEE

(Covers course material, refreshment including lunch and Certificate of Attendance)

RM1,895.00

10% Group discounts – group minimum of 3 participants from the same organisation.

ENQUIRIES

Technical Details:

Associate Professor Dr. Ir. Cheong Kuan Yew
School of Materials & Mineral Resources
Engineering, Universiti Sains Malaysia.
04-653 3888 EXT 5259
cheong@eng.usm.my

Registration and others:

Khairol Anuar Hazir Mohammed
USAINS Holding Sdn Bhd
(D) 04-653 4372 / (M) 012-286 9048
(F) 04-657 2210
khairol@usainsgroup.com /
khairol_usains@yahoo.com

METHODOLOGY

1. Face-to-face lecture – 75%,
2. Pair-share discussion – 10%,
3. Group activities – 5%,
4. Open discussion – 10%

COURSE CO-ORDINATOR

ASSOCIATE PROFESSOR DR. IR. CHEONG KUAN YEW



Kuan Yew Cheong was born in Ipoh, Perak (1972) and received the B. Eng (1st Hons.) in Materials Engineering from Universiti Sains Malaysia (USM), Malaysia in 1997. After graduation, he worked for two years as a project engineer and quality assurance engineer in a project management company and a semiconductor-device manufacturing factory in Malaysia. End of 1999, he decided to pursue his postgraduate study (M.Sc.) after being awarded a Fellowship under the Academic Staff Training Scheme from USM. After completion his M.Sc. in Materials Engineering (Thin Film Technology) in 2001, he continued his Ph.D. in the School of Microelectronic Engineering, Griffith University, Australia and the degree was awarded in 2004. This study was fully sponsored by Australian Research Council, USM, and Griffith University Postgraduate Research Scholarship. In 2005, he was awarded a Certificate of Teaching and Learning from USM. Now he is serving as an Associate Professor at the School of Materials & Mineral Resources Engineering. He is teaching under- and post-graduate courses related to fabrication and characterization of engineering & electronic materials and devices for more than 7 years. Dr. Cheong's main research area is on semiconductor device fabrication, electronic packaging, and characterization. The outcomes of his research have been published in more than 85 high-impact-factor journals and 3 book chapters. Due to his expertise in wide-bandgap semiconductor-based device fabrication technology, and as a Professional Engineer registered under Board of Engineers (Malaysia), for the past six years, he has been invited three times as a Visiting Scientist to Korea Electrotechnology Research Institute (KERI), Korea. He has also being invited as an Invited Speaker and Keynote Speaker in International Conference on Electronic Materials 2010 (ICEM 2010) - International Union of Materials Research Societies (IUMRS), Korea, CIE & IEM International Seminar on Electrical, Electronic and Energy Saving 2010, Taiwan, and Infineon Technologies (Kulim) Sdn Bhd (IFKM) Technical Symposium 2010, Malaysia, and Surface Engineering 2011 at Bangkok, Thailand. Dr Cheong has served as a reviewer for numerous referred journals and examiner for theses. He has reviewed more than 220 manuscripts and now serves as an Editorial Advisory Board Member of *Materials Science in Semiconductor Processing* published by Elsevier Science B.V. Currently, he is being appointed as an External Course Assessor of Microelectronic and VLSI Design for Wawasan Open University, Malaysia.

Outside university, he is very active in professional and community activities. He is a member of Materials Research Society (USA). He was the honorary treasurer for Electron Microscopy Society, Malaysia for year 2005/2006. Since 2005, he has been elected as one of the Ex-comms of the Institute of Electrical, Electronic Engineers (IEEE) – Component, Package, and Manufacturing Technology (CPMT) Society and Electron Device Society (EDS), Malaysia Chapter. In addition, he is also the Chairman of the electronic engineering technical division (eETD) under The Institution of Engineers Malaysia (IEM) since 2009. He has been appointed as a Council Member of IEM and a Standing Committee on Qualification/Admission and Examination/Training. For the past years, he has involved in organizing a number of local and international conferences and being invited to chair a few technical sessions in those conferences. Dr Cheong, who is a certified PSMB Trainer, has been delivering technical training courses both locally and abroad for the past 5 years and more than 400 engineers and researchers have benefited from those training.

UNDERSTANDING OF MATERIALS PROPERTIES PROGRAM SCHEDULE

DAY 1 :

- Introduction to Engineering Materials and Electronic Materials
- Fundamental of Solid State
- Electrical Property and its Applications
- Thermal Property and its Applications
- Dielectric Property and its Applications
- Magnetic Property and its Applications

DAY 2 :

- Optical Property and its Applications
- Superconductivity and its Applications
- Ferroelectricity and its Applications
- Piezoelectricity and its Applications
- Pyroelectricity and its Applications

Disclaimer

The Organizer reserves the right to reschedule or cancel any part of its published programme or venue due to unforeseen circumstances and will not accept liability for costs incurred by participants or their organizations for the cancellation of travel arrangements and/or accommodation reservations as a result of the course being cancelled or postponed. Advance notice will be given if there is such changes or cancellation.

Recommended Accommodation:

USM Guest House (inside USM compound)
Universiti Sains Malaysia,
11800 Minden, Penang.
Tel: 04-653 2030 / 04-653 2050
Fax: 04-659 7124
E-mail: guesthouse@usainsgroup.com

Eastin Hotel Penang
1, Solok Bayan Indah, Queensbay,
11900 Bayan Lepas, Penang.
Tel: 04-612 1111
Fax: 04-612 1199
Email: info.pg@eastin.com

B-Suite
B Tower, Bayan Point,
19, Medan Kampung Relau,
11900 Bayan Lepas, Penang.
Tel: 04-646 7777
Fax: 04-644 5000
Email: info@b-suite.com.my

Hotel Vistana
213, Jalan Bukit Gambir, Bukit Jambul,
11950 Penang.
Tel: 04-646 8000
Fax: 04-646 1400
Email: vispgweb@ytlhotels.com.my

The Krystal Suites
Jalan Tun Dr. Awang,
11900 Bayan Lepas, Penang.
Tel: 04-613 3333
Fax: 04-613 3338/2
Email: enquiry@thekrystalsuites.com

Hotel Equatorial Penang
1, Jalan Bukit Jambul,
11900 Bayan Lepas, Penang.
Tel: 04-6327000 / 04-6327900
Fax: 04-644 8000
Email: info@pen.equatorial.com

REGISTRATION FORM

UNDERSTANDING OF MATERIALS PROPERTIES

Send registration form to :
**Att: Khairol Anuar, USAINS Holding Sdn. Bhd., Ground Floor, Kompleks EUREKA,
 Universiti Sains Malaysia, 11800 USM, PENANG.**
Fax : 04-657 2210
Email : khairol@usainsgroup.com / khairol_usains@yahoo.com

Please register the following name/names: (Please use separate sheet, if required)

NO.	PARTICIPANTS NAME	POSITION & EMAIL
*1.		
2.		
3.		
4.		
5.		
Industry Sector:		
Company:		
Address:		
Postcode:		
*Primary Person:		*Mobile Phone:
*Telephone No.:	*Fax No.	*E-mail:

Mode of Payment

I enclose <input type="checkbox"/> Crossed Cheque <input type="checkbox"/> Bank Draft <input type="checkbox"/> Money Order <input type="checkbox"/> LO/PO	Number	Bank	No. of Participants:		
				Group Discount:	
				Total Sum:	RM
	Payment must be made payable to 'USAINS HOLDING SDN. BHD.'				

1. Bank Transfer [Please fax your Bank-in Slip (Print your name & details on the slip)].

Payee Name: **USAINS Holding Sdn. Bhd.**
 Details: **UNDERSTANDING OF MATERIALS PROPERTIES**
 Name of Bank: **CIMB Bank Berhad (USM Branch), Universiti Sains Malaysia, 11800 USM Penang.**
 Account Number: **0709-0006708-05-7**

2. A Local Order (LO) or Purchase Order (PO) must be presented before the event.

The Organizer reserves the right to refrain a registered participant from taking part in the event if no proof of payment can be presented. This only applies to registered participants who have NOT paid the registration fee PRIOR to the event date.

3. Cancellation / Substitution

A full refund less administration fee of RM500.00 will be given for cancellation received not later than **10 working days** before the course. No refund will be made after this period. However, substitute participants are welcomed at no extra charge provided written notice of at least **5 working days** before the event is given to the Organizer.