

# WORKSHOP ON “HIGH RESOLUTION LOW KV TRANSMISSION ELECTRON MICROSCOPY” (Hitachi HT7700 “Exalens” TEM)

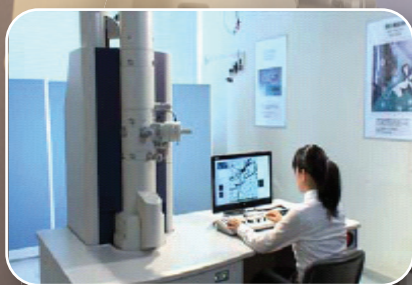
**2.0**

In almost all fields of modern science and technology the demands on high resolution imaging on delicate nanomaterials are becoming ever more challenging. The answer to these challenges is a low voltage high resolution 120kV Transmission Electron Microscope with the new HR objective lens that minimizes spherical aberration coefficient and Dual Objective lens for both High Contrast/High Resolution imaging

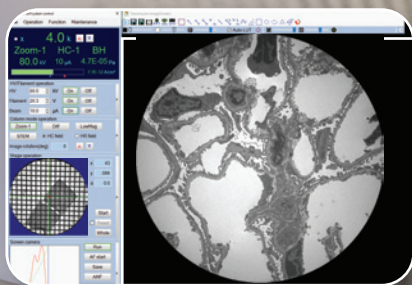
The main topics covered in these course will be:

- 1) Basic Theory of TEM
- 2) TEM design and its imaging capabilities
- 3) Analytical attachments
- 4) Demonstration of the HR 120kV TEM and sample discussions

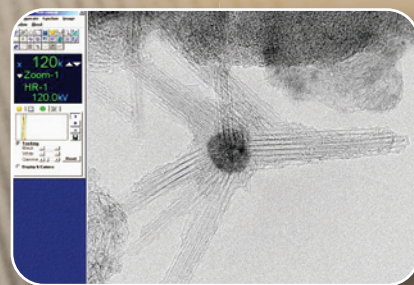
**19<sup>th</sup> to 20<sup>th</sup> Sept 2017**



No dark room required

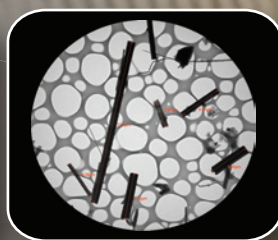
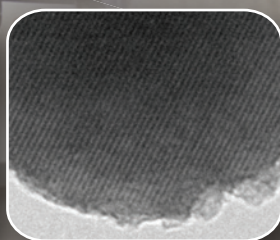
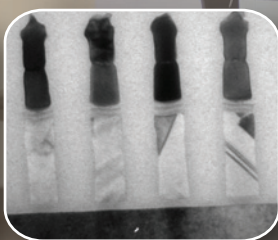
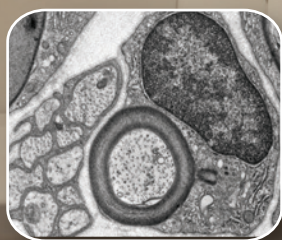


One centre control for all operation & imaging functions



Imaging at 120kV

## Images



Venue : Bilik Software, T03 UIRL, Universiti Teknologi Malaysia, Skudai  
Date : 19<sup>th</sup> to 20<sup>th</sup> September 2017  
Time : 09:00 am - 05:00pm  
Jointly Organized by : Unit Pengurusan Makmal Universiti & Hi-Tech Instruments S/B



# WORKSHOP ON “HIGH RESOLUTION LOW KV TRANSMISSION ELECTRON MICROSCOPY” (Hitachi HT7700 “Exalens” TEM)

## 19 September 2017 - Day 1 (Theory & System Demonstration)

09:00am - 09:30am	: Registration & Welcome
09:30am - 10:00am	: Introduction to TEM and its Basic Principles
10:00am - 10:30am	: Tea Break
10:30am - 11:00am	: Advances with HR TEM Technology, its Operations & imaging capabilities
11:00am - 12:30pm	: HR TEM Applications and Introduction to Diffraction & EDS Analysis attachment
12:30pm - 02:00pm	: Lunch
02:00pm - 03:30pm	: Group Demonstration 1
03:30pm - 05:00pm	: Group Demonstration 2
05:00pm	: End

## 20 September 2017 – Day 2 (Viewing & Discussion on samples – applications and sample preparations)

09:00am - 11:00am	: Sample Observation Group 1*
11:00am - 01:00pm	: Sample Observation Group 2*
02:30pm - 04:30pm	: Sample Observation Group 3*
04:30pm	: End

*\* Each group will have approximately 5 to 10 pax*

**1st day Workshop (Public University & Staffs) : RM 50 (inclusive of meals, handouts and certificate)**

**(Industry) : RM 100 (inclusive of meals, handouts and certificate)**

**2nd day Workshop (Public University & Staffs) : RM 100 (entitled for 1pcs RM100 sample analysis voucher)\***

**(Industry) : RM 200 (entitled for 1pcs RM200 sample analysis voucher)\***

**For registration please contact:**

**Email : En. Ahmad Muslehuddin, UTM (a.muslehuddin@utm.my)  
Pn.Norhazalina, UTM (nhazalina@utm.my)**

**or**

**Phone Call : 07-5610267/68**

**For enquiries relating to the product please contact Mr. Lai, Hi-Tech Inst (012-2078392)**

*\* Sample analysis voucher only applicable for participants attending for both days*