

# Advanced Materials Characterization Institute (AMCI)



## About:

The AMCI was founded in March 2018 through a joint endeavor by schools of Metallurgy & Materials Engineering and Chemical Engineering in order to pave the way to know-how development and research evolution accomplishment in considered disciplines related to Materials characterization.

## A: Transmission Electron Microscopy (TEM)

### TEM (I)

200 kV Schottky field emitter HR-transmission electron microscope equipped with TEM, EFTEM, EELS, EDS, STEM (BF/DF/HAADF). The microscope has single and double tilt specimen holder.

Magnification:

TEM: 4000 - 1,000,000 X

STEM: 2,000 - 5,000,000X

### TEM (II)

200 kV Schottky field emitter HR-transmission electron microscopy equipped with TEM, EDS, STEM (BF/DF/HAADF). The microscope has single and double tilt specimen holder.

Magnification:

TEM: up to 1,000,000 X

STEM: up to 5,000,000 X

## Sample preparation:

Twin Jet Electropolisher

Ion Milling System

Ultrasonic Disk Cutter, Dimpling Grinder

## B: Scanning electron Microscopy (SEM)

### SEM (I)

Field Emission Scanning Electron Microscope with SE, BS and low vacuum (LVD) detectors for best selection of the information and image optimization. This microscope can provide up to 500KX magnification with high resolution of imaging.

### SEM (II)

High resolution scanning electron microscope with SE, BS, In Lens, and EDS detectors.

### SEM (III)

Field Emission Scanning electron microscope with SE, BS, In Lens, and EDS detectors. Also this microscope is equipped with EBSD detector for crystallography investigations.

