

كلية الهندسة: المختبرات

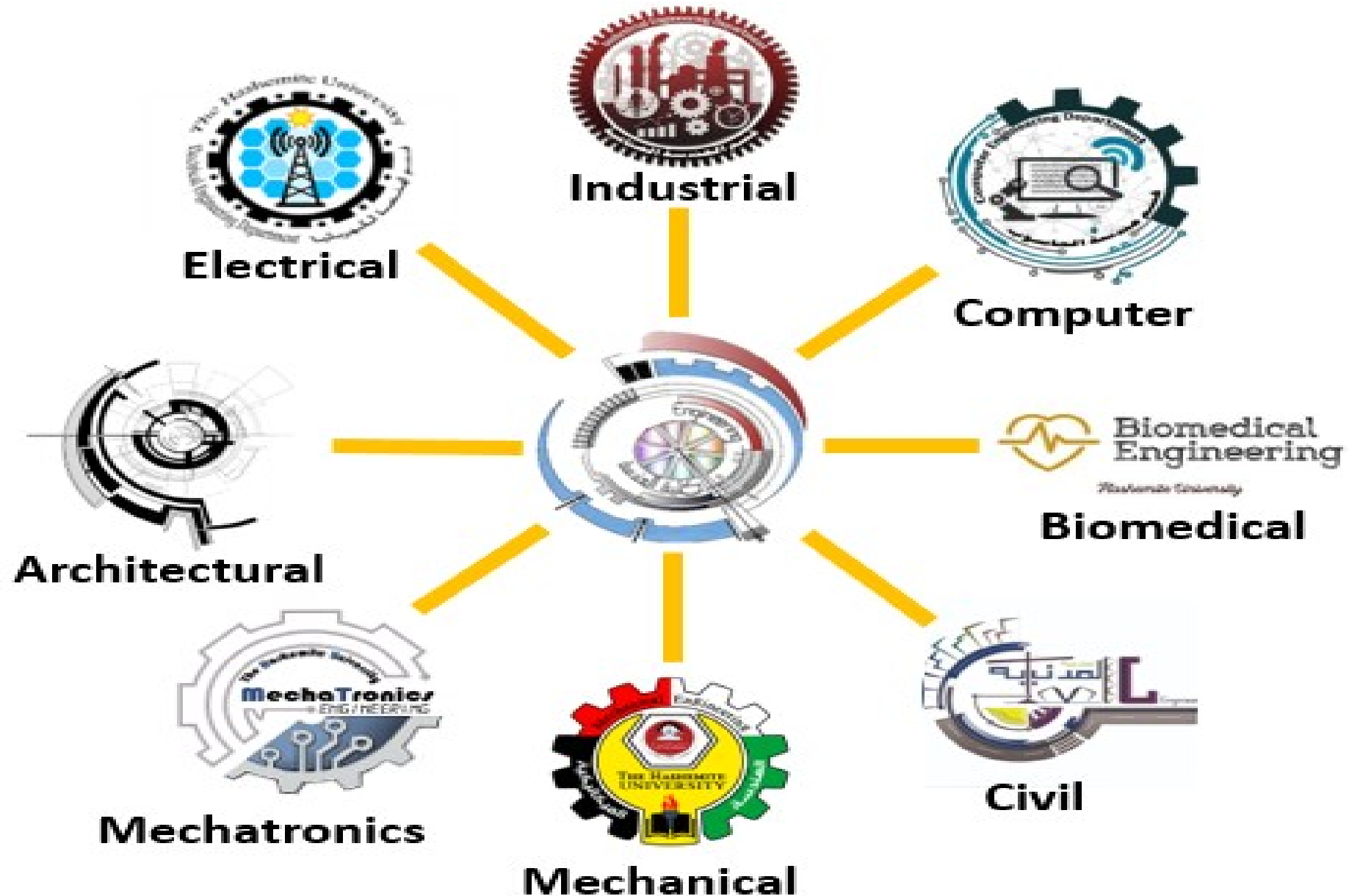
الجامعة الهاشمية

2020

المحتوى

- ☐ مختبرات قسم هندسة الحاسوب
- ☐ مختبرات قسم الهندسة الكهربائية
- ☐ مختبرات قسم الهندسة الصناعية
- ☐ مختبرات قسم الهندسة الطبية
- ☐ مختبرات قسم الهندسة الميكانيكية
- ☐ مختبرات قسم هندسة المدنية
- ☐ مختبرات قسم هندسة الميكاترونيكس
- ☐ مختبرات قسم هندسة العمارة
- ☐ مختبرات قسم العلوم الهندسية المساندة
- ☐ المشاغل الهندسية

FACULTY OF ENGINEERING: Departments

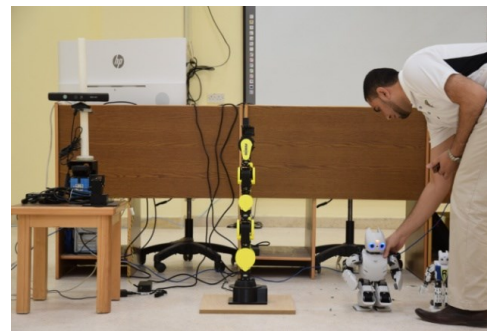
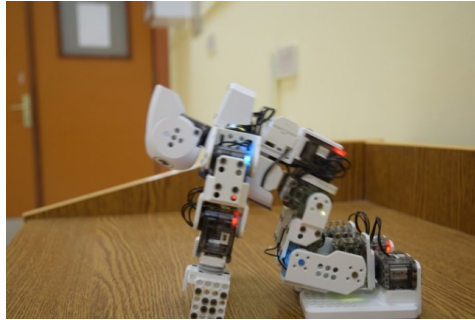


Department of Computer Engineering (CpE): Laboratories



- The **Practical Labs** include:
 1. Digital Logic Lab
 2. Microprocessors Lab
 3. DIC and Embedded Systems Lab
 4. Maintenance Lab
 5. Networks Lab
- The **Research Labs** include:
 - Robot Vision Research Lab (HURVL)

Department of Computer Engineering (CpE): **Laboratories**



Department of Computer Engineering (CpE): **Laboratories**



Microprocessor Lab



Department of Computer Engineering (CpE): **Laboratories**



Maintenance Lab



Department of Computer Engineering (CpE): **Laboratories**



Network Lab



Department of Computer Engineering (CpE): **Laboratories**

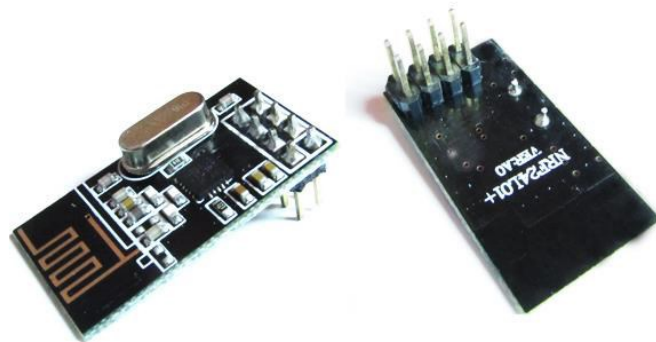


DIC and Embedded Systems Lab



Department of Computer Engineering (CpE): **Laboratories**

Wireless Networks Lab



Department of Computer Engineering (CpE): **Laboratories**

Software Lab





HURVL: Robot Vision Research Laboratory



Robotic Platforms



Beam telepresence robot



Adept PeopleBot Research Mobile Robot Platform



Darwin OP2 Humanoid Robot



DARWIN-Mini Humanoid Robot



7DOF CYTON EPSILON 1500 Robotic Arm Manipulator



Turtlebot2 Mobile Robot Platform

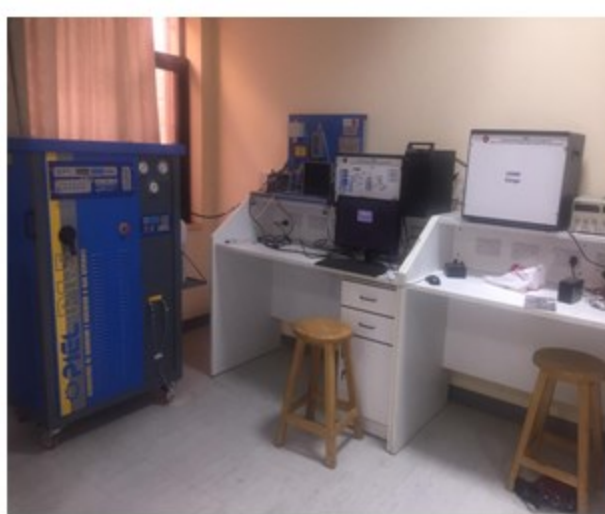
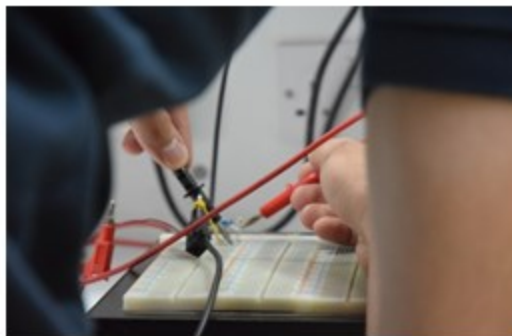
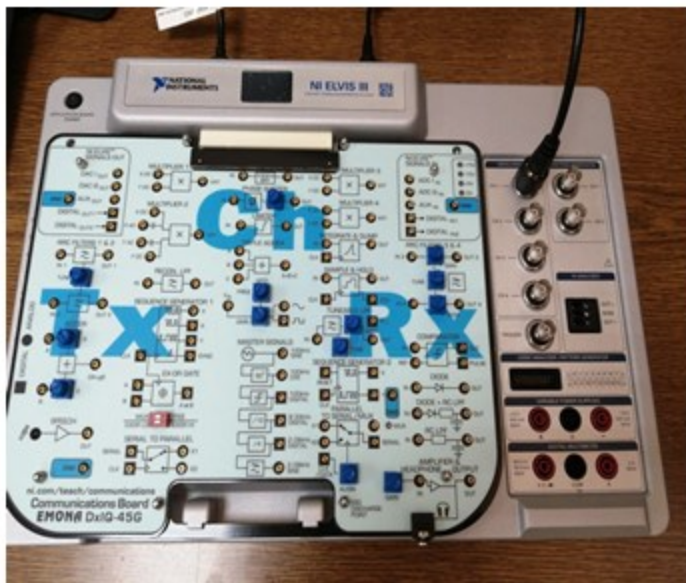
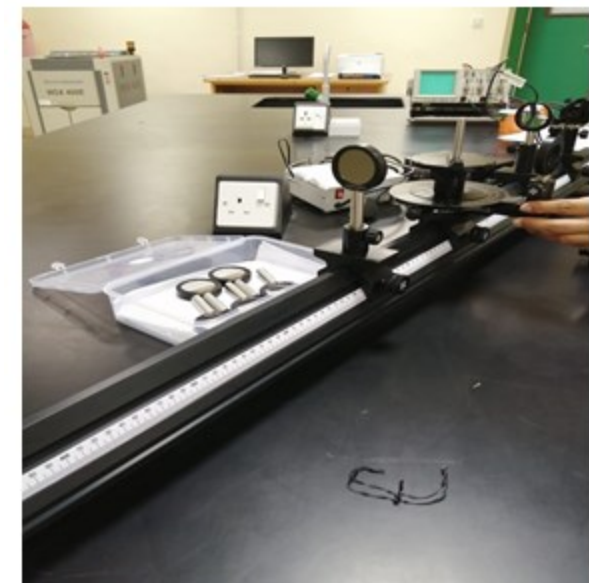
Department of Electrical Engineering (EE): Laboratories



- The **Practical Labs** include:
 1. Electrical Circuit Lab
 2. Introduction to Circuit Lab
 3. Communications Lab
 4. Electrical Machines Lab
 5. Electronics Lab
- The **Research Labs** include:
 - Renewable energy lab
 - Optical Fiber
 - Antenna
 - IoT (under preparation)

Department of Electrical Engineering (EE): **Laboratories**









Department of Industrial Engineering (IE): **Laboratories**

- The Practical Labs include:
 1. Properties of Materials lab.
 2. Manufacturing processes lab.
 3. Human factors lab.
 4. CAD/CAM lab.
 5. Automation lab.
 6. Metrology lab.
- The Research Labs include:
 - Material Processing and Characterization lab.

Department of Industrial Engineering (IE): **Material Synthesis and Characterization lab**



Scanning Electron Microscopy



Differential Scanning Calorimetry



Stereolithography



Physical Vapor Deposition



Universal Testing
Machine



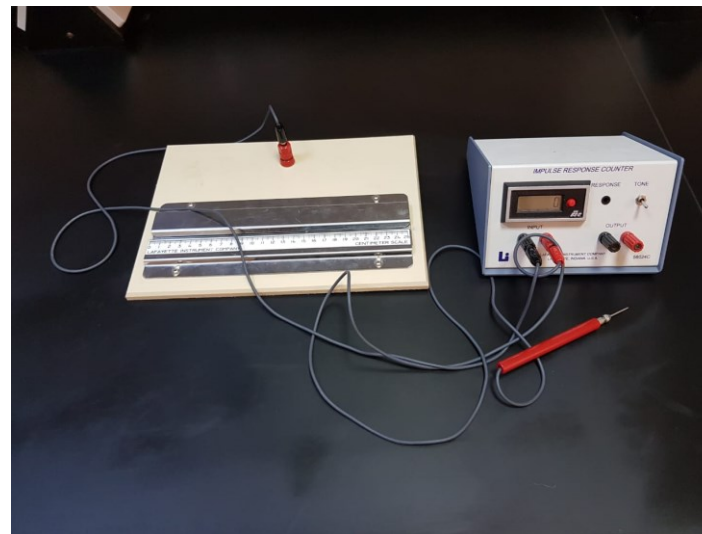
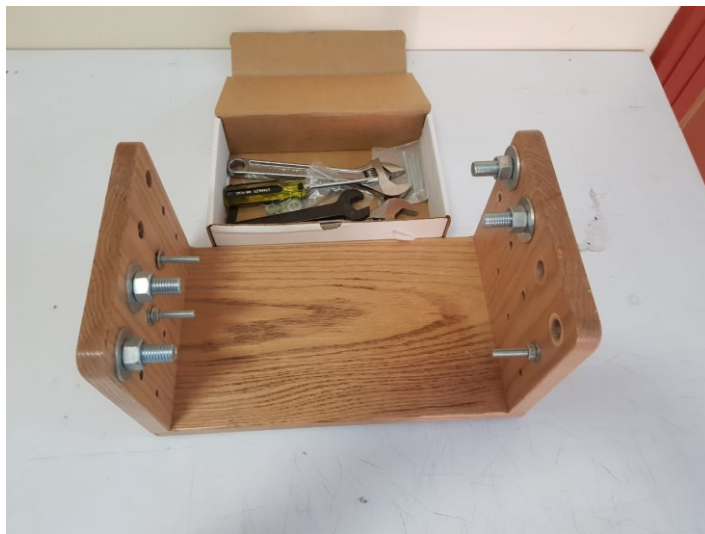
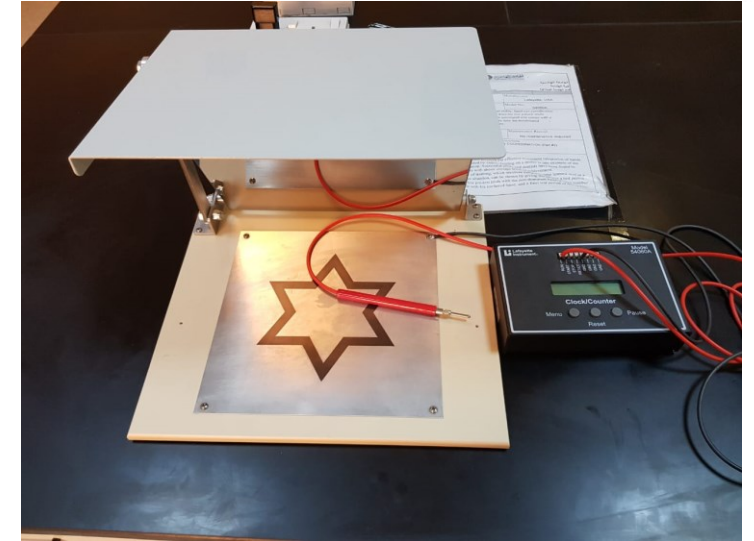
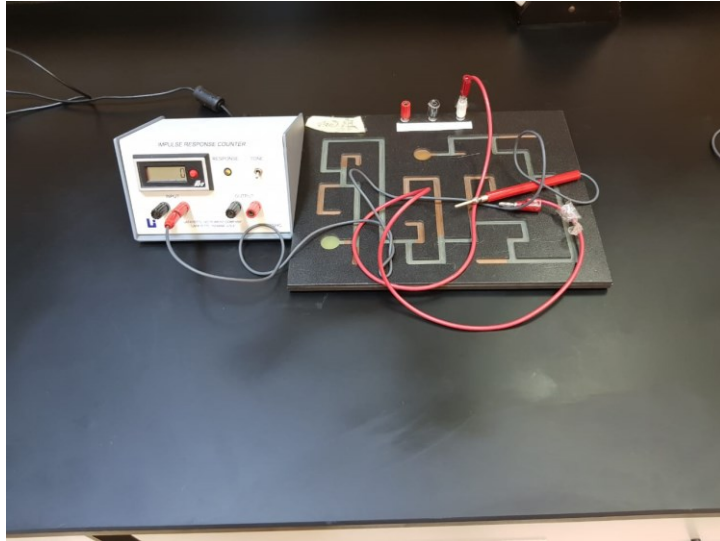
Computer Integrated Manufacturing



Department of Industrial Engineering (IE): **Engineering Materials Lab.**



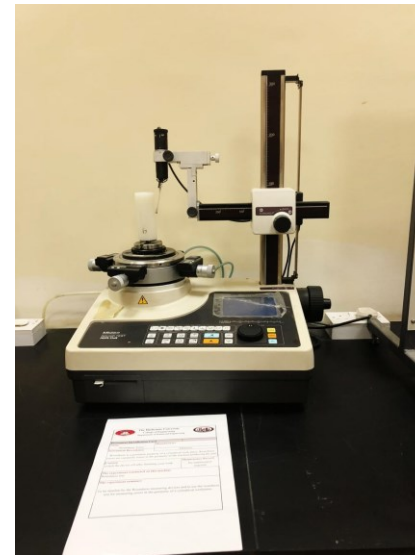
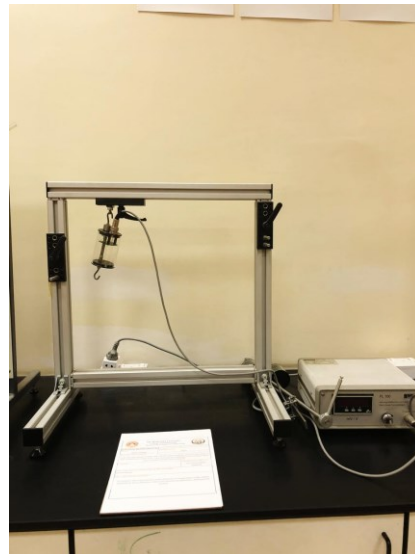
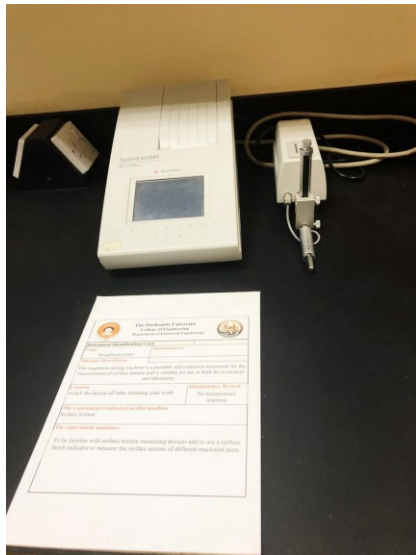
Department of Industrial Engineering (IE): **Human Factors Lab.**



Department of Industrial Engineering (IE): **Manufacturing and CNC Lab.**



Department of Industrial Engineering (IE): **Metrology Lab.**

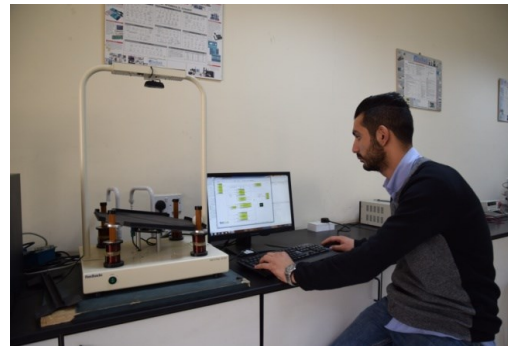
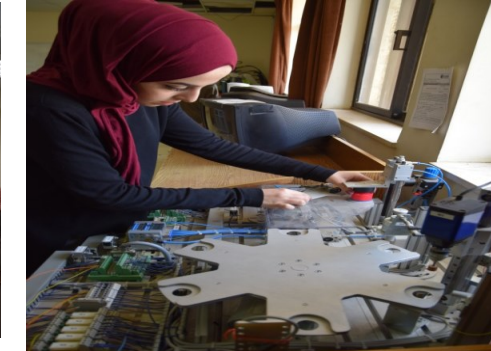
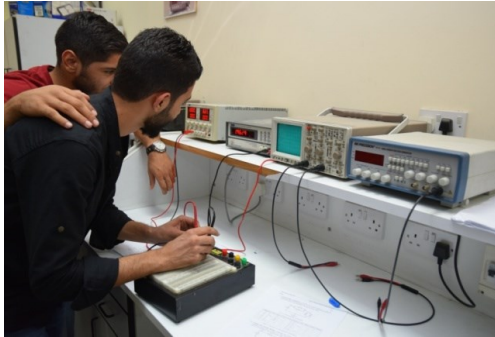


Department of Biomedical Engineering

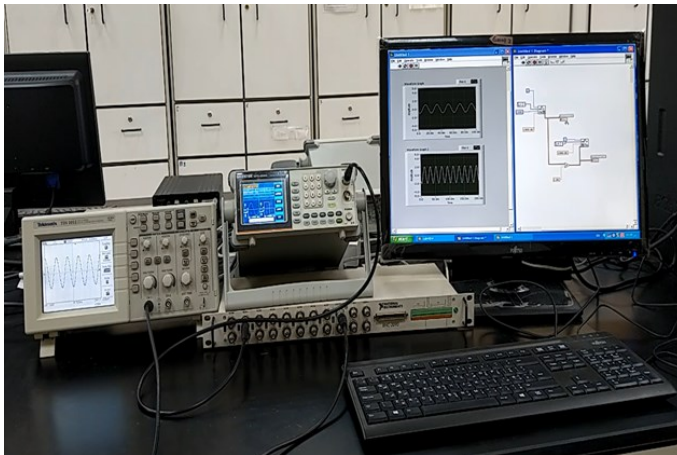
(BE): Laboratories

- The **Practical Labs** include:
 1. Biomedical Instrumentation (1) Lab.
 2. Biomedical Instrumentation (2) Lab
 3. Digital Image Processing Lab.
 4. Biomechanics and Rehabilitation Engineering Lab.
 5. Biomedical Transducers and Telemetry Lab.
- The **Research Labs** include:
 - Biomedical Computer Simulation Lab

Department of Biomedical Engineering (BE): Laboratories



Department of Biomedical Engineering (BE): Laboratories



Department of Mechanical Engineering (ME): Laboratories



- The **Practical Labs** include:
 1. Strength of materials Lab.
 2. Thermal 1 Lab.
 3. Thermal 2 Lab.
 4. Fluid Lab.
 5. Vibration and Control Lab..
- The **Research Labs** include:
 - Renewable Energy Lab

Department of Mechanical Engineering (ME): **Laboratories**



• *Automatic Control Lab.*



Department of Mechanical Engineering (ME): **Laboratories**

- *Fluid Mechanics Lab.*



Department of Mechanical Engineering (ME): **Laboratories**

▪ *Heat Transfer Lab.*



Department of Mechanical Engineering (ME): **Laboratories**



▪ HVAC Lab.



Department of Mechanical Engineering (ME): **Laboratories**

▪ *Internal Combustion Engines Lab.*



Department of Mechanical Engineering (ME): **Laboratories**

- *Mechanical Drawing Lab.*



Department of Mechanical Engineering (ME): **Laboratories**



▪ *Mechanical Vibration Lab.*



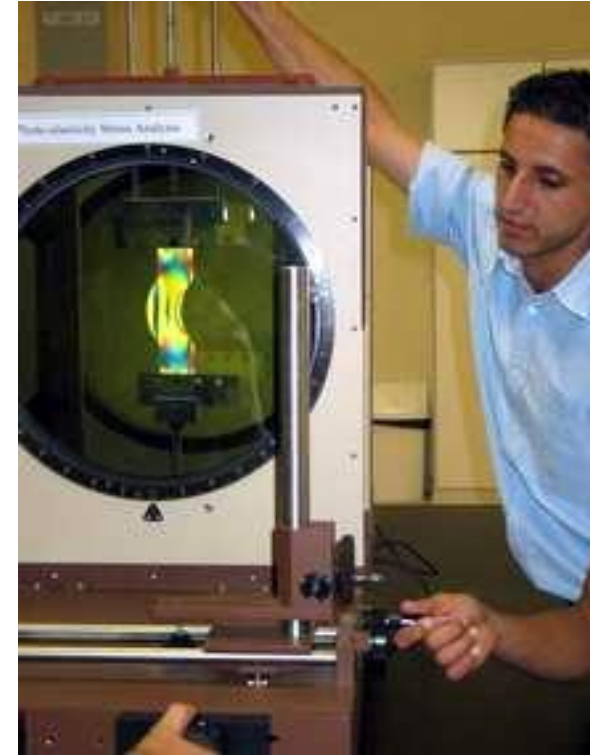
Department of Mechanical Engineering (ME): **Laboratories**

- *Renewable Energy Lab.*



Department of Mechanical Engineering (ME): **Laboratories**

▪ *Strength of Materials Lab.*



Department of Mechanical Engineering (ME): **Laboratories**



▪ *Thermodynamics Lab*



Department of Civil Engineering (CE): Laboratories

- The Practical Labs include:
 1. Building Materials Lab
 2. Surveying lab
 3. Highway Engineering Lab
 4. Engineering Geology Lab
 5. Geotechnical Lab
 6. Environmental Lab
 7. Hydraulic Lab



Department of Civil Engineering (CE): **Laboratories**



Surveying Lab



Department of Civil Engineering (CE): **Laboratories**



Highway Engineering Lab



Department of Civil Engineering (CE): **Laboratories**



Building Materials Lab



Department of Civil Engineering (CE): **Laboratories**



Engineering Geology Lab



Department of Civil Engineering (CE): **Laboratories**



Hydraulic Lab



Department of Civil Engineering (CE): **Laboratories**



Environmental Lab



Department of Civil Engineering (CE): **Laboratories**



Geotechnical Lab



Department of Mechatronics Engineering (MCE): Laboratories



- The Practical Labs include:
 1. Control Systems Lab
 2. Electrical Machines and Drive Lab
 3. Control and Transducers Lab
 4. Microcontrollers Lab
 5. Mechatronics Systems Lab
 6. Process Control Lab
 7. Logic and Electronics Lab.
- The Research Labs include:
 - Advanced Control Applications Laboratory
 - Autonomous Research Laboratory (Drone, electric cars)

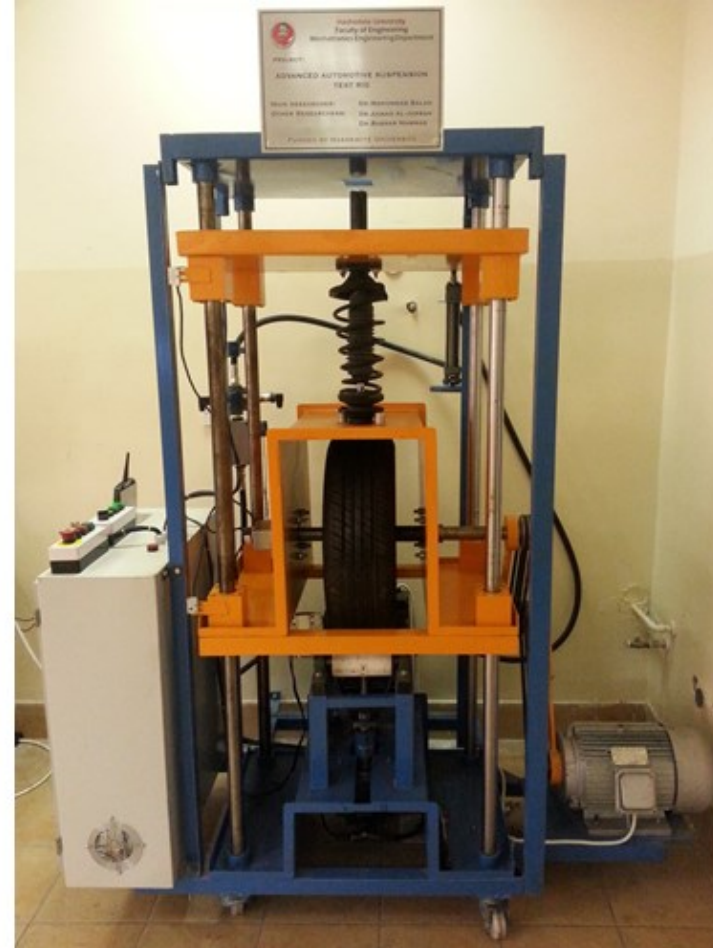
Department of Mechatronics Engineering (MCE): **Laboratories**



Hybrid fuel cell battery test bench



Department of Mechatronics Engineering (MCE): **Laboratories**



Department of Mechatronics Engineering (MCE): **Laboratories**



Department of Mechatronics Engineering (MCE): **Laboratories**



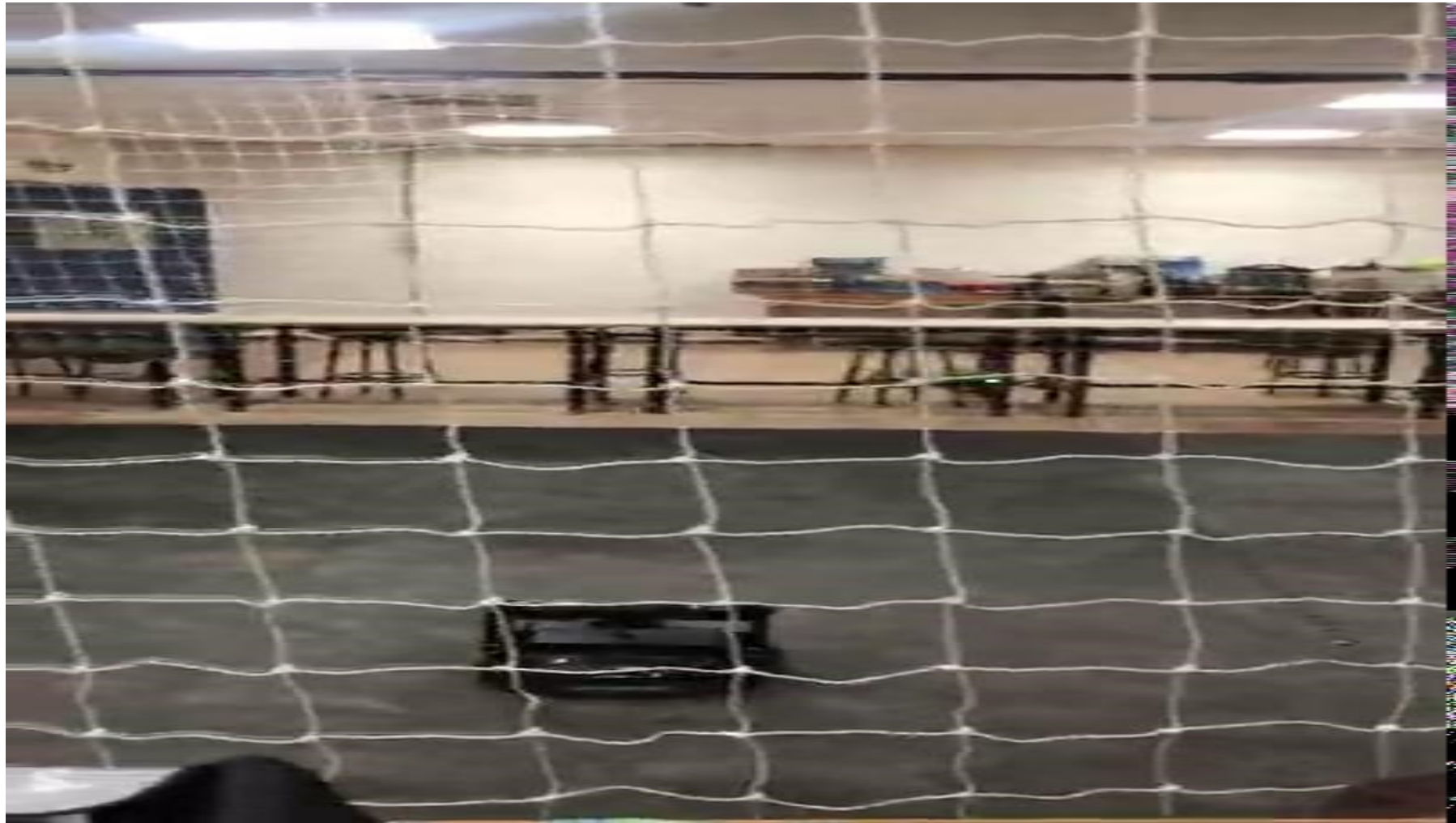
Department of Mechatronics Engineering (MCE): **Laboratories**



Department of Mechatronics Engineering (MCE): **Laboratories**

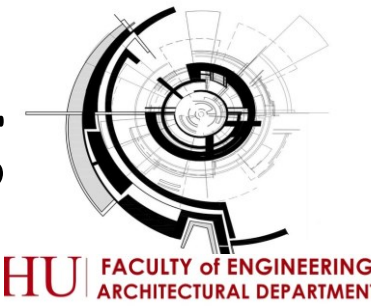


Department of Mechatronics Engineering (MCE): **Laboratories**



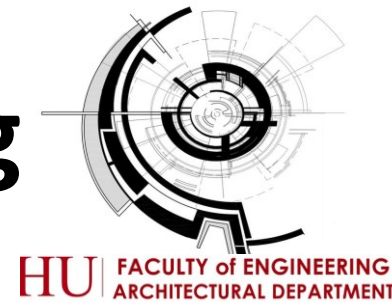
Department of Architectural Engineering

(AE): Laboratories

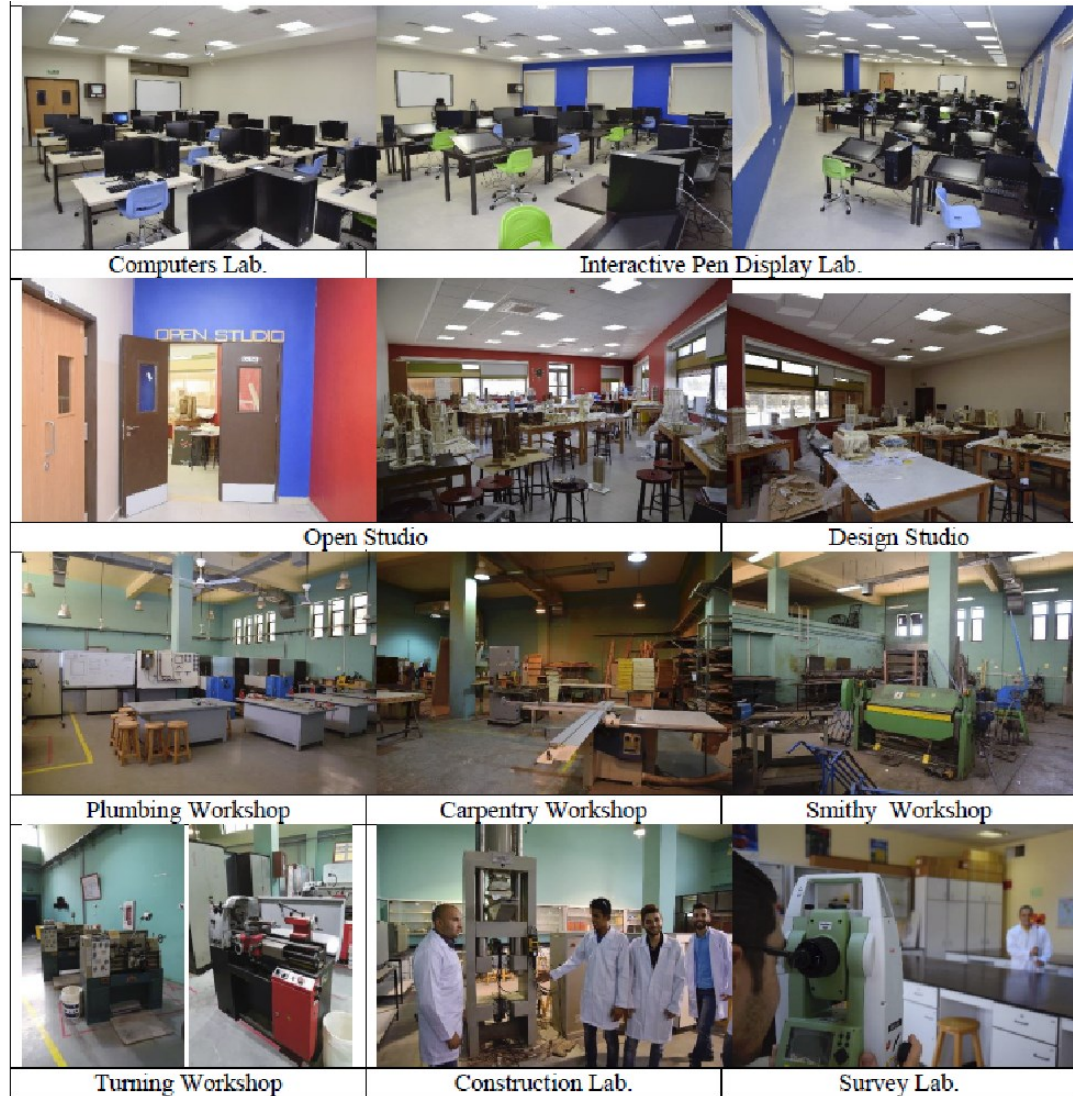


- The Practical Labs include:
 1. Acoustical and Lighting Lab
 2. Building Materials Lab
 3. Digital and Computer Labs
 4. Energy Lab
 5. Engineering Workshops
 6. Fabrication Lab (Wood and model making workshop lab)
 7. Surveying Lab.

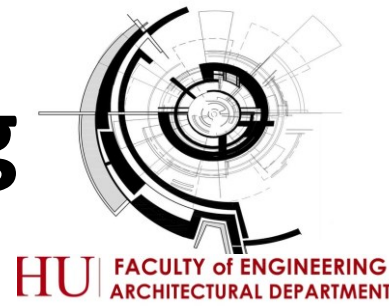
Department of Architectural Engineering (AE): Laboratories



Department of Architectural Engineering (AE): **Laboratories**



Department of Architectural Engineering (AE): Laboratories



Department Of Allied Engineering Sciences: Laboratories

- The Practical Labs include:
 1. Engineering manual drawing.
 2. AutoCAD drawing



FACULTY OF ENGINEERING

- **Units Under Engineering Faculty**

- Engineering workshops
- Innovation center
- NDT center
- Energy Center
- Cisco Academy



Engineering

workshops

Welding, Carpentry, Electricity,....



Thank you