# MECHATRONICS LABORATORY

## Laboratory Information

Lab Name: Mechatronics Laboratory
Room No.: 009- Colleges of Engineering and Technology
Capacity: 15 students

Mechatronics is the synergistic integration of mechanical engineering, electrical engineering, electronics, computer science, and control theory for the design of intelligent systems. Mechatronic systems are used in automotive systems, aerospace systems, consumer electronics, and robotics. The Mechatronics Laboratory was established to support embedded control systems in Mechanical Applications. Mechatronics Lab objective is to expect the student to understand the real pleasure of research through finding research themes, establishing theories, developing systems, conducting experiments, and presenting results. The lab supports courses like introduction to Mechatronics, Mechatronics systems, Robotics and Applications and Final year Graduation projects as well as graduate studies.

## Major Equipment

- CIM "Computer Integrated Manufacturing" system

## Laboratory Serves the following courses:

| Course no. | Courses Title | Semester |
|---|---|---|
| ME 591 | Mechatronics | $7^{th}$ |
| ME 592 | Mechatronics Systems | $9^{th}$ |
| ME 593 | Electromechanical Systems | $8^{th}$ |
| ME 594 | Robotics Applications | $10^{th}$ |
| ME 595 | Automation of Mechanical Systems | $9^{th}$ |

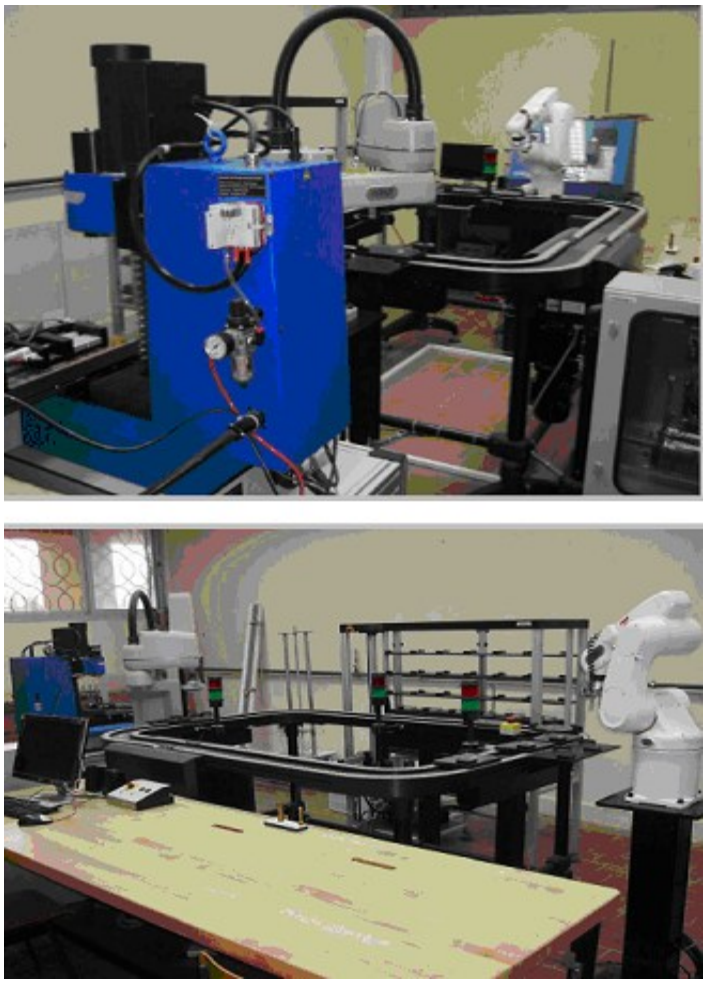

Figure 1.38 Computer Integrated Manufacturing System in Mechatronics Laboratory