Mechatronics Engineering

OVERVIEW

The B.Sc. program in Mechatronics Engineering (ME) provides students with essential skills required for the digital era and the 4th industrial revolution. Engineering applications of the internet of things (IoT), artificial intelligence (AI), robotics, and industrial automation are a major focus of the program, accompanied with capstone projects designed to reinforce learning in these fast-growing fields. The program prepares students technically and professionally to effectively participate in the rapidly occurring digital transformation in industry and business. Graduates are active players in multidisciplinary teams and environments with strong technical and communication skills, reflecting a high level of professionalism and engineering ethics. This program (B.Sc. in Mechatronics Engineering) is accredited by the German Accreditation Council (Stiftung Akkreditierungsrat) and Jordan's AQACHEI.

WHY ME AT GJU?

If you are interested in today's most exciting and rewarding career choices, then you are highly encouraged to choose Mechatronics Engineer offered at the School of Applied Technical Sciences (SATS).

- Applied educational system
- National and German Accreditation
- Exposure to the German industrial sector
- Highly qualified faculty and staff
- Outstanding advising and academic support
- State-of-the-art classrooms and labs
- Small class sizes
- Sports and social activities
- Scholarships for academic excellence
- High employment rates
- Advantages of post-graduate employment at GJU

TRACKS

- Applied Artificial Intelligence
- Robotics and Autonomous Systems

CAREER FIELDS

- Mechatronics engineer
- Data scientist
- Software engineer
- Robotics engineer
- Intelligent systems engineer
- Systems integration engineer
- Project engineer
- Artificial intelligence (AI) engineer
- Control and instrumentation (C&I) engineer
- PLC /SCADA/ DCS engineer
- Process control engineer
- Automation engineer
- IoT engineer
- Design and interfacing engineer
- R&D engineer

LABORATORIES

- Mechatronic systems design and interfacing
- Machine intelligence
- Automation and industry 4.0
- Microcontrollers and IoT
- Robotics
- Control systems
- Sensors and actuators
- Programmable logic controllers (PLC)
- Instrumentation and measurements
- Hydraulics and pneumatics
- Computer-aided math for mechatronics engineering

GERMAN YEAR

All GJU students spend a whole year in Germany as part of their bachelor's degree. This year consists of a study semester at one of our German partner universities where the student attends technical elective courses, and an internship semester, during which the student applies their knowledge in the German industry. The program has an agreement with over 20 partner universities in Germany.

STUDY FIELDS

- Artificial intelligence (AI)
- Industry 4.0
- Machine intelligence
- Embedded systems
- Data science and machine learning
- Internet of things (IoT)
- Control and vibrations
- Automation and integration of engineering systems
- Augmented reality and virtual reality (AR/VR)
- Smart systems and devices
- Autonomous ground vehicles (AGVs)
- Mobile and industrial robots

SOFTWARE SKILLS

- Matlab
- Python
- LabVIEW
- Robot Operating System (ROS)
- Gazebo for robot simulation
- CIROS digital twin
- Total Integrated Automation (TIA) portal
- Arduino IDE
- FluidSIM
- AutoCAD

GJU | SATS

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