



ADIYAMAN UNIVERSITY

BESNİ ALİ ERDEMOĞLU
VOCATIONAL SCHOOL

ELECTRONIC AND AUTOMATION
DEPARTMENT OF MECATRONIC
PROGRAM

INTRODUCTORY BOOKLET

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CONTENTS

- Our department
- Mission vision
- The Importance of the Department of Electronic and Automation Mechatronics Program
- Why Electronic and Automation?
- Job Opportunities for Our Graduates
- Our Highest and Lowest Placement Scores According to Central Placement
- Our Course Structure

Our Department

Adiyaman University Electronic and Automation Department started accepting students as Mechatronics Program within Adiyaman University Besni Ali Erdemođlu Vocational School in the 2012 - 2013 academic year.

Head of Department

Asst. Assoc. Dr. Nülifer GÜNDOĞAN

Deputy Head of Department

Asst. Assoc. Dr. Zihni Alp ÇEVİK

Academic Staff

Asst. Assoc. Nülifer GÜNDOĞAN

Asst. Assoc. Zihni Alp ÇEVİK

Asst. Assoc. Zeynal Abidin OĞUZ

Dr. Lecturer Esin BABALIK

Lecturer Abdulaziz CEYLAN

Department Secretary

Yusuf DOĞAN

Mission & Vision Mission

Mission

As the Electronic and Automation Department of the Department of Mechatronics, we aim to To create a contemporary education and training culture that produces and uses contemporary information and technology, provides education at high quality standards, attaches importance to university-industry cooperation, is participatory, sharing, people-oriented, has original values, and aims to create a national education culture through research and projects in the fields of science and technology. To contribute to knowledge and to raise individuals who are professionally competent and respectful of social values.

Vision

As the Electronic and Automation Department, we the basic aim to Provide vocational education and train at a contemporary level and with high quality standards; to Create a qualified workforce that will contribute to the country's economy; Respecting universal values and adopte total quality management principles; Constantly monitors developments through university-industry collaborations and directs developments through research opportunities; to take its place among the leading vocational schools in our country and region.

The Importance of the Department of Electronic and Automation Mechatronics Program

In recent years, there have been rapid developments in electronics, computers and control systems. As a result, computer-controlled systems have become widespread in almost all fields. Today, there are almost no mechanically operated systems. Artificial intelligence techniques have been implemented in design, production, maintenance and repair. Therefore, the design, production, maintenance and repair of advanced products are no longer a single issue. The combined use of mechanical, electrical and electronic, hydraulic and pneumatic, and computer technologies has become a necessity. As a result, Mechatronics has emerged as a brand new discipline. Mechatronics; It covers a wide range of areas, from home technologies to advanced medical devices, from computer-controlled machines to robots.

Mechatronics application areas can be grouped under the following headings:

- Control systems (position, level, pressure and temperature control systems...)
- Robots (handling and welding robots)
- Industrial automation (barcode systems, production line devices)
- Building automation (security systems, automatic climate control systems, automatic door systems)
- Household products (washing machines and dishwashers)
- Automotive (airbag, anti-lock braking system (ABS))
- Defense industry (mine sweeping robots, automatic guided vehicles)
- Medical applications (magnetic resonance MRI, endoscopic devices, ultrasonic probes, etc.)
- Aeronautical engineering (autopilots, unmanned aerial vehicles)
- Image and sound processing (autofocus devices, voice-controlled devices)
- Production (CNC, NC)
- Laser optical systems (barcode)
- Smart measurement devices (calibration devices,

test and measurement sensors)

In parallel with the rapid development in this field, the need for trained personnel and the employment gap are constantly increasing. Mechatronics Program meets this need

It aims to teach mechatronic systems theoretically and practically to meet the requirements.

Why Electronic and Automation Department?

Mechatronics department is an interdisciplinary branch that expresses the combination of mechanical, electrical-electronics and computer science branches in order to provide solutions to demands and problems in sensitive and intelligent product design. Students of this department will graduate as people who design electronic devices and communication systems consisting of mechanical, electrical, electronic and optical components that require all kinds of complex designs, develop production technologies, establish the relationships and functions between systems and test them within valid physical rules. Our graduates

generally carry out their work in closed areas in factories, workshops or workplaces. Since the work is not routine, they are constantly problem solving and designing. This makes the profession active and enjoyable. Control of robot systems, installation of programmable control systems and

Tasks such as maintenance, operation of computer-controlled machines, and working with computer networks require high attention and systematic work. In parallel with these developments, the need for trained personnel and the employment gap are constantly increasing. Students studying in this program will take their place in the sector as technicians who have the vision to keep up with the developments of the age, who have knowledge of the operation of new systems, who are qualified and open to continuous development.

Job Opportunities for Our Graduates

Our Electronic and Automation Department of Mechatronics Program graduates have a wide range of job opportunities. Students who graduate from our program have the opportunity to pursue a career

in various positions in the information technologies sector. These positions are listed below:

Professionals trained in the field of mechatronics can work in public and private enterprises, machinery, automotive, textile, defense industry, plastics, medical electronics, aircraft, energy, communication, petrochemical sectors. Mechatronics is a developing sector in our country. For this reason, in regions where the industry is developed, especially employees with vocational training have more employment opportunities. Students graduating from the field of Mechatronics, in line with the competencies they have gained in the branch/profession they choose;

Machine

Automotive Textile

Defense Industry

Plastic

Medical Electronics

Aircraft Energy

It can also work in petrochemical sectors.

Our Highest and Lowest Placement Scores According to Central Placement

According to the YKS placement results announced by the Measurement, Selection and Placement Center in 2023, students were placed in our department with the lowest TYT score of 245,87434 points. All 30 student quotas in total have been filled. 99 students continue their education in our department. You can view detailed information on YÖK's web page with the link address https://yokatlas.yok.gov.tr/onlisans.php?y=1002_90116.

Our Course Structure

Faculty	BESNİ ALİ ERDEMOĞLU VOCATIONAL SCHOOL	Catalog	(2020) (MECHATRONICS) 2020-2021 MECHATRONICS	Dil/Lang	English
Section	ELECTRONIC AND AUTOMATION	Class	1		
Program	MECHATRONICS	Semester	Fall		

#	Course Unit Code	Course Unit Title	L+P	Credit	ECTS	Elective/Non Elective
	AIIT 101	Principles of Atatürk and History of Revolution I	2+0	2	2	NE
	ENF 101	BASIC INFORMATION TECHNOLOGY	2+0	2	4	E
	MEK 101	MATHEMATICS	2+1	3	4	NE
	MEK 103	BASICS OF MECHATRONICS	3+0	3	4	NE
	MEK 105	TECHNICAL AND PROFESSIONAL DRAWING	2+1	3	4	NE
	MEK 107	DIRECT CURRENT CIRCUIT ANALYSIS	3+1	4	4	NE
	MEK 109	ELECTRICAL AND ELECTRONICS MEASUREMENTS	2+1	3	3	NE
	MEK 117	ALGORITHM AND PROGRAMMING	2+1	3	4	E
	SEC-1	ELECTİVE-1	2+1	3	4	E
	TD 101	TURKISH LANGUAGE I	2+0	2	2	NE
	YD 101	FOREIGN LANGUAGE (ENGLISH) I	2+0	2	3	NE

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Section	ELECTRONIC AND AUTOMATION	Class	1		
Program	MECHATRONICS	Semester	Spring		

#	Course Unit Code	Course Unit Title	L+P	Credit	ECTS	Elective/Non Elective
	AIIT 102	Principles of Atatürk and History of Turkish Revolution II	2+0	2	2	NE
	MEK 102	MATERIAL TECHNOLOGY	2+1	3	4	NE
	MEK 104	COMPUTER-AIDED DRAWING 1	3+1	4	4	NE
	MEK 106	DIGITAL ELECTRONICS 1	3+1	4	4	NE
	MEK 108	ALTERNATING CURRENT CIRCUIT ANALYSIS	2+1	3	4	NE
	MEK 114	PROFESSIONAL FOREIGN LANGUAGE	3+0	3	3	E
	MEK 116	PROFESSIOANL MATHEMATICS	3+0	3	3	E
	MEK 118	MICROCONTROLLERS	3+1	4	4	NE
	MEK 120	SENSORS AND TRANSDUCERS	2+1	3	3	E
	SEC-2	ELECTİVE-2	2+1	3	3	E
	TD 102	TURKISH LANGUAGE II	2+0	2	2	NE
	YD 102	FOREIGN LANGUAGE (ENGLISH) II	2+0	2	3	NE

Faculty	BESNİ ALİ ERDEMOĞLU VOCATIONAL SCHOOL	Catalog	(2020) (MECHATRONICS) 2020-2021 MECHATRONICS	Dil/Lang	English
Section	ELECTRONIC AND AUTOMATION	Class	2		
Program	MECHATRONICS	Semester	Fall		

#	Course Unit Code	Course Unit Title	L+P	Credit	ECTS	Elective/Non Elective
	MEK 203	COMPUTER AIDED DESIGN OF ELECTRONIC CIRCUITS	2+1	3	3	NE
	MEK 205	MANUFACTURING OPERATIONS	3+1	4	4	NE
	MEK 207	MECHANISMS	2+1	3	3	NE
	MEK 209	ANALOG ELECTRONICS	2+1	3	4	NE
	MEK 213	FLEXIBLE MANUFACTURING SYSTEM	3+1	4	4	NE
	MEK 217	OCCUPATIONAL HEALTH AND SAFETY	2+0	2	2	E
	MEK 219	AHILIK AND PROFESSIONAL ETHICS	2+0	2	2	E
	MEK 221	ELECTRIC MOTORS	2+0	2	2	E
	MEK 225	QUALITY ASSURANCE AND STANDARDS	2+0	2	2	E
	MEK 227	PROGRAMMABLE LOGİC CONTROLLERS	2+1	3	4	NE
	MEK 229	MICROCONTROLLER APPLICATIONS	1+1	2	2	E
	SEC-3	Elective 3	2+0	2	2	E
	SKS	ELECTİVES	2+0	2	2	E
	SKS 249	CAREER PLANNING	1+0	1	2	E
	ST 203	INTERNSHIP I	0+0	0	4	NE

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Section	ELECTRONIC AND AUTOMATION	Class	2		
Program	MECHATRONICS	Semester	Spring		

#	Course Unit Code	Course Unit Title	L+P	Credit	ECTS	Elective/Non Elective
MEK 202	MEK 202	HYDROLOGICS AND PNEUMATICS	4+0	4	4	NE
MEK 206	MEK 206	PROCESS CONTROL	2+1	3	3	E
MEK 208	MEK 208	INDUSTRIAL ROBOTS	2+1	3	3	E
MEK 210	MEK 210	CONTROL SYSTEMS	2+1	3	3	E
MEK 212	MEK 212	COMPUTER-AIDED MACHINE TOOLS	3+1	4	4	NE
MEK 214	MEK 214	Matlab Applications	2+1	3	3	E
MEK 216	MEK 216	INDUSTRIAL NETWORKS	2+1	3	3	E
MEK 226	MEK 226	Entrepreneurship	2+1	3	3	E
MEK 228	MEK 228	BUSINESS MANAGEMENT	2+1	3	3	E
MEK 230	MEK 230	GRADUATION PROJECT	0+2	2	3	NE
MEK 232	MEK 232	SCADA SYSTEMS	2+1	3	3	E
MEK 234	MEK 234	DIGITAL ELECTRONICS 2	2+1	3	3	E
SEC-4	SEC-4	ELECTIVE 4	10+5	15	15	E
ST 204	ST 204	INTERNSHIP II	0+0	2	4	NE



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Our Activities as the Mechatronics Program of the Department of Electronic and Automation

As the Department of Electronics and Automation, we participate in the Project Market event held at our University every year. We also follow the developments in the field of Electronics and Automation by supporting students who will participate in Teknofest competitions. International studies are carried out by faculty members of our department within the scope of European Union projects accepted for the further development of the mechatronics program.

With the support obtained from the projects, new devices and test sets were purchased for the Mechatronics Program workshops. In this way, the quality of applied education in the Mechatronics Program has been further increased and raised to the next level.

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DEPARTMENT OF ELECTRONIC AND AUTOMATION
MECHATRONICS PROGRAM

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