UBT College

Mechatronics Engineering Faculty

Strategic Plan 2025-2030

1. Mechatronics Engineering Faculty

The concept of mechatronics education at UBT College is the result of the emerging industrial production and processing industry in Kosovo. The request for industry academic engineering courses in mechatronics courses were not satisfied till last decade when UBT in cooperation with leading Austrian practitioners developed the first Mechatronics Management programme. The initial survey of the industry had clearly pointed out the needs of industry towards mechatronics, reflecting the decisive role which automation, electronic and system thinking had gained in mechanical engineering branches. Thus, the foundation of mechatronics at UBT was characterised by strong market pull for this type of education in view of the overwhelming role mechatronics and engineering play in the emerging Kosovo industry. UBT, as part of an EU Erasmus supported project, was accredited and operated a Mechatronics Management programme in the past few years. Since no traditional engineering disciplines had been established in UBT before, the programme had operated from scratch.

During the re-accreditation process of 2022, the Faculty changed the name from 'Management of Mechatronics' to 'Mechatronics Engineering. The mechatronics graduates at UBT are expected to be able to adapt quickly to the trends in industry, to respond quickly to the needs of the market and to adopt an integrative approach in product and process development, and by virtue of their knowledge and experience in various disciplinary skills, be more competent team leaders. The graduates will be required to work in an industrial environment deploying advanced technology according to mechatronics principles as well as communicate with and provide a link between a specialist in a particular area with the requirements of Kosovans businesses. They will also be able to make significant contributions in all stages of engineering design – from conceptualization to final product design in a truly systemic approach where electrical, electronic, computer and mechanical sub systems are simultaneously designed to function as an integrated while, as a single system.

2. Vision and Mission Statement

Vision

To be a leader in Mechatronics Engineering education, research and innovation, characterized by quality, reliability, and flexibility. We are dedicated to fostering innovation, developing new technologies, promoting international collaboration, and upholding sustainability and ethical practices in engineering.

Mission

The mission of the Faculty of Mechatronics Engineering is to deliver high-quality engineering education by combining theoretical knowledge with practical application, while promoting creativity, upholding ethical principles, and fostering research development. We are committed to supporting the professional growth of our academic staff, strengthening international partnerships with universities and industry, and preparing students to succeed in their careers as they advance technology and benefit society.

Core Values

The educational, scientific research, professional, and publishing activities, as well as professional administrative services, of the Mechatronic Engineering Faculty are founded upon the following values:

- Personal approach to students
- Openness
- Transparency
- Responsibility
- Ethicality
- Communicativeness
- Collegiality
- Effectiveness
- Cooperativeness
- Interdisciplinary cooperation
- Readiness for the solution of difficulties
- Lifelong education
- Results-oriented

3. Main Goals of the Strategic Plan

Goals 1: *Enhance Educational Excellence*

- **Objectives:**
  - **Develop Cutting-Edge Curricula:** Regularly update academic programs to reflect the latest advancements in mechatronics and related fields.
  - **Improve Teaching Methods:** Implement innovative teaching techniques and technologies to enhance learning outcomes.
  - **Expand Student Support Services:** Provide comprehensive academic advising, career counseling, and mentorship programs.
- **Actions:**
  - Conduct periodic curriculum reviews and incorporate feedback from industry and academic experts.
  - Invest in faculty development programs to train educators in new teaching methodologies.
  - Establish a student support center with resources for academic success and career planning.

Goals 2: *Advance Research and Innovation*

- **Objectives:**
  - **Increase Research Funding:** Attract external grants and industry sponsorships to support research initiatives.
  - **Promote Interdisciplinary Collaboration:** Encourage projects that combine mechatronics with other engineering and scientific disciplines.
  - **Enhance Research Dissemination:** Publish research findings in high-impact journals and present at major conferences.
- **Actions:**
  - Develop grant-writing workshops and establish a dedicated research office to assist in securing funding.
  - Create interdisciplinary research groups and foster collaboration with other departments and institutions.
  - Organize research symposiums and workshops to showcase faculty and student research.

Goals 3: *Promote International Collaboration*

- **Objectives:**
  - **Expand Exchange Programs:** Increase opportunities for student and faculty exchanges with international institutions.

- **Develop strategic partnerships** with top global research institutions to facilitate collaborative research opportunities and innovative projects.
- **Enhance International Visibility:** Improve the faculty's presence in international academic and professional communities.
  - **Actions:**
    - Establish formal agreements with partner universities and research institutions for exchange programs.
    - Participate in international research consortia and collaborative projects.
    - Launch international marketing campaigns and host global conferences or workshops.

Goals 4: *Commit to Sustainability and Ethical Practices*

- **Objectives:**
  - **Integrate Sustainability in Curriculum:** Include sustainability principles in engineering courses and projects.
  - **Implement Green Practices:** Adopt environmentally-friendly practices in campus operations and research.
  - **Promote Ethical Standards:** Emphasize ethical considerations in engineering practices and research.
- **Actions:**
  - Develop and offer courses focused on sustainable engineering and ethics.
  - Conduct a sustainability audit of campus operations and implement recommendations for improvement.
  - Create an ethics committee to review and provide guidance on research and engineering practices.

Goals 5: *Enhance Community Engagement and Impact*

- **Objectives:**
  - **Develop Community Outreach Programs:** Create programs that address local and global engineering challenges.
  - **Facilitate Industry Collaboration:** Strengthen partnerships with industry to provide practical solutions and internships.
  - **Support Local Development Projects:** Engage in projects that benefit the local community and infrastructure.
- **Actions:**
  - Organize community workshops, public lectures, and educational events on engineering topics.
  - Establish a network of industry partners for collaborative projects and student internships.
  - Initiate and support community-based projects and initiatives that align with the faculty's expertise.

Goals 6: *Strengthen Institutional Infrastructure*

- o **Objectives:**
    - ▪ **Upgrade Facilities and Technology:** Modernize classrooms, laboratories, and administrative systems to support academic and research activities.
    - ▪ **Enhance Administrative Processes:** Streamline operations and improve efficiency in faculty management and support services.
    - ▪ **Foster a Supportive Environment:** Create a positive work and learning environment for faculty, staff, and students.
- o **Actions:**
    - ▪ Invest in state-of-the-art equipment and technology for teaching and research purposes.
    - ▪ Implement a comprehensive review of administrative processes to identify and address inefficiencies.
    - ▪ Develop programs to support faculty and staff well-being and professional development.