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Department of Biomedical Engineering

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Department of Biomedical Engineering

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Overview

The Faculty of Engineering offers a variety of programs in engineering, science, and technology. These programs aim to improve educational standards and solve real-world problems through ideas and innovation. Our programs focus on engineering and computing principles, problem-solving approaches, and the development of innovative solutions in healthcare, robotics, and intelligent systems

As technology advances, the global demand for biomedical, robotics, and AI experts is rising globally. To meet this demand,

we offer two four-year, well-structured undergraduate degree programs: BE Biomedical Engineering and BS Robotics and Intelligent Systems, along with ME and PhD in Biomedical Engineering. All programs follow the Higher Education Commission (HEC) and the Pakistan Engineering Council (PEC) guidelines, ensuring compliance with the Outcome-Based Education (OBE) system.

Our curriculum is designed to provide a solid engineering foundation coupled with hands-on expertise in state-of-the-art laboratories. The BE Biomedical Engineering program focuses on integrating engineering with medical sciences, covering areas such as medical device design, bioinstrumentation, and healthcare technology management. The BS Robotics and Intelligent Systems program covers robotics, AI, Machine Learning, and Autonomous Systems, preparing students for technological advancement.

The ME Biomedical Engineering programs emphasize advanced areas such as Physiological Modeling and simulation, Biomedical Imaging, Signal Processing, Medical device design and the application of AI and health care. The PhD Biomedical Engineering program is designed to unlock new frontiers in Biomedical research, equipping graduates with the expertise to lead cutting-edge research and innovation in health care.

Beyond regular classes, we enhance technical and professional skills through seminars, workshops, and internships, preparing students for research, development, and innovation. Our experienced faculty, modern infrastructure, and supportive environment help turn theoretical knowledge into real world solutions for future engineers, scientists, and entrepreneurs.

To maintain continuous improvement and high educational standards, the Faculty of Engineering has established a Board of Studies (BoS), a Board of Faculty (BoF), and an Industrial Advisory Board (IAB) made up of professionals, industry experts, entrepreneurs, and consultants. These bodies guide student's professional development, ensuring their ability to secure job placement and entrepreneurial opportunities.

Advisory Experts from Industry

S.no	Name	Designation	Organization
1	Engr. Dennis John Mathews	Head of Biomedical and Electronics Engineering	Aga Khan University Hospital
2	Engr. Osama A.Qayoom	Head of Department of Biomedical Engineering	DOW University of Health Science (DUHS)
3	Engr. Farhan Pervez	Deputy General Manager	Medequips
4	Engr. Haris Baig	Founder and Chief Executive Officer (CEO)	Deneb Corporation (Pvt). Ltd.
5	Engr. M. Junaid Khan	Head of Department of Biomedical Engineering	National Institute of Cardiovascular Diseases (NICVD)
6	Engr. Mujeeb Khalil	Head of Department of Biomedical Engineering	Tabba Heart Institute

S.no	Name	Designation	Organization
7	Engr. Wajahat Ali	Manager Biomedical Engineering	Darul Sehat Hospital
8	Engr. Syed Shuja Ur Rehman	Manager Sales	Noor International
9	Engr. Wajih Abidi	Manager Biomedical Engineering	Jinnah Post Graduate Medical Center (JPMC)
10	Engr. Azfar Hussain	Head of Customer Service Pakistan and Afghanistan	Siemens Healthineer
11	Engr. Faraz Alam Hashmi	HoD Biomedical Engineering	Abbassi Shaheed Hospital
12	Engr. Yasir Burney	Manager, Clinical Engineering	Aga Khan University Hospital
13	Saleem Pirani	Manager, Technology Support	Centre for Innovation in Medical Education, AKUH
14	Engr. Hammad Hussain	Deputy Manager Biomedical Department	SMBB Institute of Trauma (SMBBIT)

S.no	Name	Designation	Organization
15	Engr. Muhammad Musaddiq	National Service Manager	Noor International

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Vision

To be recognized as an excellent academic, research-driven, innovative, and entrepreneurial education provider in the field of engineering and sciences through advanced knowledge and

educational methods for the solution to problems in Healthcare, Robotics, and Intelligent Systems..

Mission

To provide an optimum learning environment to educate future engineers in the fields of Biomedical Engineering, Robotics, and Intelligent Systems utilizing the most updated curricula and training opportunities that enhance the interpersonal, entrepreneurial and multidisciplinary knowledge to contribute in academia, research centres and industry.

Objectives

The objectives of the department of biomedical engineering is to deliver quality education by:

- Providing student-centered degree programs ensuring graduates are accomplished in academic, technical and entrepreneurial expertise.
- Providing graduates with opportunities that fosters professional development, ethical responsibilities and lifelong learning.

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