https://shu.edu.pk/Faculty-of-Engineering/

Faculty of

engineering

The Faculty of Engineering at Salim Habib University offers cutting-edge programs in Biomedical Engineering, Robotics, and Intelligent Systems, integrating engineering with healthcare and AI. With industry-aligned curricula, state-of-the-art labs, and research opportunities, students gain hands-on expertise. The faculty fosters innovation and professional growth, preparing

future engineers and entrepreneurs to tackle real-world challenges.

- Undergraduate Program

BE Biomedical Engineering

More Info

Apply

- Undergraduate Program

BE Biomedical Engineering

More Info

Apply

- Undergraduate Program

BS Robotics and Intelligent Systems

More Info

Apply

- Undergraduate Program

BS Robotics and Intelligent Systems

More Info

Apply

- Postgraduate Program

ME Biomedical Engineering

More Info

Apply

- Postgraduate Program

ME Biomedical Engineering

More Info

Apply

- Doctorate Program

Ph.D. Biomedical Engineering

More Info

Apply

- Doctorate Program

Ph.D. Biomedical Engineering

More Info

Apply

Dean's Message

The Faculty of Engineering aims to develop and produce the next generation of accomplished engineers, scientists, researchers, innovators, and entrepreneurs with strong technical and analytical skills. We offer two four-year undergraduate degree programs: B.E. in Biomedical Engineering and BS in Robotics and Intelligent Systems, along with ME and PhD programs in Biomedical Engineering. Our engineering program is recognized and accredited by the Pakistan Engineering Council (PEC).

The B.E. Biomedical Engineering program is designed to produce engineers with a competitive edge in both knowledge and technical skills through inquiry, research, and experimentation. On the other hand, the B.S. in Robotics and Intelligent Systems program focuses on robotics and intelligent system analysis and application, preparing students to meet the growing global demand in these cutting-edge fields.

For both programs, the faculty of engineering has adopted a globally competitive curriculum that incorporates theoretical knowledge with hands-on training and learning using state-of-the-art equipment. This allows students to solve complex engineering problems and enables them to enhance their technical skills in various industries such as automation, artificial intelligence, and healthcare, both nationally and internationally.

Our well-qualified and experienced faculty ensures that the program's learning outcomes are achieved. We emphasize student-teacher interaction to provide an optimal learning environment, where strong emphasis is laid on Industry-Academia collaboration. To support this, we have an Industrial Advisory Board that facilitates the development of insights on current trends in the healthcare industry and emerging technologies by arranging class lectures, seminars, webinars, field visits, and workshops for students.

For continuous quality improvement, the Board of Studies and Board of Faculty regularly review and discuss curricula and related matters, ensuring that our programs remain relevant and up-to-date. On behalf of the Faculty of Engineering, I welcome you to join an innovative world of Engineering and Science and wish you all the best in your future endeavours.

Dr. M. Zeeshan Ul Haque

Professor & Dean

Faculty of Engineering

Departments Under Faculty of Engineering

View All Programs

Department of Biomedical Engineering

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.
Learn More

Faculty Achievements

Research Publication

Faculty member from the Department of Biomedical Engineering, Engr. Shaheer Mirza's research work has been published in a Subscription-Based Elsevier Journal.

Read More

Department of Biomedical Engineering secures Erasmus+ Project BIOMED 5.0

Prof. Dr. Zeeshan Ul Haque, Dean, Faculty of Engineering, Engr. Hassan Ali, Lecturer, Department of Biomedical Engineering, and Engr. Muhammad Amir, Lecturer, Department of Biomedical Engineering, have successfully obtained a grant for the

Erasmus+ Project BIOMED 5.0: Capacity Building in Biomedical Engineering Education for Digital Transformation and Industry 4.0/5.0 Technologies.
Read More

Faculty Members Elevated to Senior IEEE Members

We offer our congratulations to Prof. Dr. Zeeshan Ul Haque, Dean, Faculty of Engineering, Salim Habib University, and Mr. M. Wasim Munir, Assistant Professor, Department of Biomedical Engineering, Salim Habib University, on being promoted to Senior IEEE Members of the Institute of Electrical and Electronics Engineers (IEEE), a professional association for electronics engineering, electrical engineering, and other related disciplines.

Read More

IEEE SHU Student Branch secured Humanitarian Grant

The IEEE SHU Student Branch has secured a $6,690 grant from the IEEE Humanitarian Technology Board (HTB) for their project titled 'SolarVitalize: Empowering Education & Well-being with Renewable Energy in Rural Areas.' The project, led by Mr. M. Wasim Munir, Assistant Professor, Biomedical Engineering, and Principal Investigator (PI), and Engr. Tooba Khan, Lecturer, Biomedical Engineering, and co-PI, will be implemented with the valuable contributions of IEEE SHU Student Branch members Fakhra Jalal, Amna Javed, Usama Javed, and Umer Sheikh. This initiative, supported by the IEEE Karachi Section, IEEE SHU Student Branch, and Omair Sana Welfare Foundation, supports quality education and well-being, fostering a brighter future for rural communities.

Read More

IEEE SHU Student Branch secured YP Mentoring Meet Funding

We are proud to announce that the IEEE SHU Student Branch has won a Young Professionals (YP) Mentoring Meet Fund worth USD 1000. Congratulations to Engr. Tooba Khan, Lecturer, Biomedical Engineering, and Advisor EMBS and ComSoc, Mr. M. Wasim Munir, Assistant Professor, Biomedical Engineering, and Branch Counsellor, IEEE SHU Student Branch, and the branch members whose efforts have resulted in this outstanding achievement!

Read More

Student Achievements

Financing of FYDP's for the year 2023-24 by PEC

We take immense pride in announcing that five Final Year Design Projects (FYDPs) created by Salim Habib University's bright Biomedical Engineering students have been selected for financing for the year 2023-2024 by the Pakistan Engineering Council (PEC). Design and Development of Human Patient Simulator, supervised by Prof. Dr. Zeeshan Ul Haque, Dean, Faculty of Engineering, and Engr. Tooba Khan, Lecturer Biomedical Engineering Fabrication of Sodium Alginate Microparticles Embedded in PVA Hydrogel for Tissue Regeneration, supervised by Mr. M. Wasim Munir, Assistant Professor Biomedical Engineering, Engr. Tooba Khan, and Engr. Abdul Moiz, Research & Teaching Associate, Biomedical Engineering Eco-Friendly Bioplastic/PVA Composite for Biomedical Applications, supervised by Engr. Tooba Khan and Engr. Hassan Ali, Lecturer Biomedical Engineering Comparative Evaluation of the Properties of PEEK, PMMA, and Titanium for Cranial Implants, supervised by Engr. Tooba Khan and Mr. M.

Wasim Munir Hand-e-Ssist (Automated Therapeutic Arm), supervised by Engr. Hassan Ali and Engr. Tooba Khan
Read More

Oral Presentation in International Biomedical and Digital Health Conference 2024 held at NEDUET

The Department of Biomedical Engineering at Salim Habib University is pleased to announce that two research projects by our students were shortlisted for oral presentation at the 3rd International Biomedical and Digital Health Conference 2024, organized by NED University of Engineering & Technology (NEDUET) in collaboration with the Institution of Engineers Pakistan (IEP), held from the 24th to the 25th of April, 2024, at NEDUET, and one of these projects won Second Prize. The Development and Characterization of Biomimetic Skin Patch for IV Insertion on Medical Simulators by Misha Aijaz, Amna Ayaz, and Usama Javed, supervised by Engr. Tooba Khan Self-Healing Moringa Guar Gum Hydrogels for Biomedical Applications by Fatima Siddiqui, Rosemary John, and Tariq Amin, supervised by Engr. Tooba Khan and Engr. Abdul Moiz Among these, the research work titled ‘The Development and Characterization of Biomimetic Skin Patch for IV Insertion on Medical Simulators' was awarded second place.

Read More

Robotics Project Selected for IEEE Region 10 Robotics Competition

Syeda Fakhra Jalal, Zarish Majid Shaikh, and Mirza Areeb Baig, Final Year Biomedical Engineering students at Salim Habib University, have earned a coveted place in the final round of the rigorous competition with their innovative project, the Robotics Grasper. The IEEE Region 10 Robotics Competition is one of the leading robotics challenges in the Asia-Pacific region,

attracting the brightest minds from across the continent. We are proud of our team, and beyond proud that this marks the second consecutive year a team from SHU has secured a spot in this elite competition!
Read More

Conferences

Faculty of Engineering

1st International Conference on Emerging Trends in Biomedical Engineering, Science and Technology (ICETBEST) 2024

INMIC 2024

40th All Pakistan IEEEP Students' Seminar

Quick Links

Add a header to begin generating the table of contents

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.

Pioneering Features of Faculty of Engineering

• We offer an internationally recognized and cutting-edge curriculum that meets with the HEC/PEC NCRC 2017 curriculum guidelines.

• We offer well-equipped laboratories, including NI Elvis, a modular engineering educational laboratory device developed specifically for hands-on training to enhance experimental engineering skills.

• Students develop solutions for real-world challenges by utilizing engineering principles and on-campus facilities.

• Students engage in innovative projects like designing and building robotic systems, such as the Robotic Grasper with Haptic Feedback, that were recognized internationally.

• Students can avail internships and job placement opportunities at top biotech and medical device companies.

• Students learn how to integrate emerging technologies to develop smart solutions under the guidance of professors and industry mentors, which further foster entrepreneurial ideas.

• We offer experiential learning in collaboration with national and international medical professionals, researchers, and industry experts.

• Students developed a total of 105 projects in 2024 related to Robotics & Automation, Biomedical Engineering & Medical Devices, Entrepreneurship & Business Innovation, Healthcare Technology & AI in Medicine, Smart & Assistive Devices, Hydrogel & Bioplastics Research, Wearable Health Monitoring Systems, Neural & Brain-Computer Interfaces, Machine

Learning & AI in Healthcare, Medical Imaging & Diagnostics, Computational Modeling & Simulations, Biotechnology & Regenerative Medicine, Sustainable Materials & Bioceramics, Mathematical & Data-Driven Healthcare Solutions, and Hospital & Healthcare System Optimization.

Faculty

Dr. Syed Mehmood Ali

Associate Professor & Head of Biomedical Engineering Program

- Faculty of Engineering,Department of Biomedical Engineering

View Profile

Dr. Syed Mehmood Ali

Dr. Irfan Ahmed Usmani

Assistant Professor

- Faculty of Engineering,Department of Biomedical Engineering

View Profile

Dr. Irfan Ahmed Usmani

Dr. M. Zeeshan Ul Haque

Professor & Dean

- Faculty of Engineering,Department of Biomedical Engineering

View Profile

Dr. M. Zeeshan Ul Haque

Mr. Muhammad Wasim Munir

Assistant Professor

- Faculty of Engineering,Department of Biomedical Engineering

View Profile

Mr. Muhammad Wasim Munir

Engr. Gul Munir

Lecturer

- Faculty of Engineering,Department of Biomedical Engineering

View Profile

Engr. Gul Munir

Ms. Madiha Imdad

Lecturer

- Faculty of Engineering,Department of Biomedical Engineering

View Profile

Ms. Madiha Imdad

Engr. Tooba Khan

Lecturer

- Faculty of Engineering,Department of Biomedical Engineering

View Profile

Engr. Tooba Khan

Engr. Hassan Ali

Lecturer

- Faculty of Engineering,Department of Biomedical Engineering

View Profile

Engr. Hassan Ali

Engr. Abdul Moiz

Lecturer

- Faculty of Engineering,Department of Biomedical Engineering

View Profile

Engr. Abdul Moiz

Engr. Muhammad Aamir

Lecturer

- Faculty of Engineering,Department of Biomedical Engineering

View Profile

Engr. Muhammad Aamir

Engr. Sarah Tariq

Research & Teaching Assistant

- Faculty of Engineering,Department of Biomedical Engineering

View Profile

Engr. Sarah Tariq

Student Projects

Content will be provided.

Gallery

Content will be provided.

Events

ast-container