

Department of Biomedical Engineering
BM-413 Final Year Design Project
Project Titles



F/SOP/FYDP 02/03/00

Batch 2022

Semester _Fall 2025

S.No.	Project Title	Student Name	Supervisor/ Co-supervisor	Industry
01	A Bioinformatics Approach for Predicting Chemotherapy-Induced Neurotoxicity Risk	Adeena Khan Areeba Alam Syeda Fatima Shakir	Engr. Amna Amin Sethi (S) Dr. Nisar Ahmed Shar (Co)	
02	Biodegradable oxygen releasing hydrogel for biomedical applications	Laiba Zulfiqar Sarrah Ali Asgher Oreeba Hareem Bint -e -Zia	Dr. Engr. Saima Kashif (S)	Dr. Sadaf Gul Department of Botany, University of Karachi, Karachi
03	Design and development of an IoT- Enabled Smart Hydrogel- Based Bandage for Remote Monitoring and Sustained Drug Release	Alishba Adnan Amna Jabeen Qandeel Zehra Muhammad Uzair Ahmed	Dr. Engr. Saima Kashif (S)	
04	Fabrication of conductive scaffold for tissue regeneration	Sumaiya Zaman Maryam Asif Ifra Ashfaq Masoor Khan	Engr. Nafia Jawaid Kurd (S) Dr. Engr. Eraj Humayun Mirza (Co)	Dr. M. Haseeb Nawaz Managing Director, Bioengineering R&D Pvt. Ltd.
05	Fabrication of Herbal Hydrogel for Wound Healing Application	Sheeza Saud Asma Khan Hoor ul ain Salam Nimra Khan	Engr. Madiha Haleem (S) Engr. Amna Amin Sethi (Co)	
06	Fabrication of Oxidised Sodium Alginate/Gelatin hydrogel Skin Grafts	Afifa Sheikh Zoobia Naseem Anzila Sohail Bisma Abid	Engr. Amna Amin Sethi (S) Dr. Engr. Eraj Humayun Mirza (Co)	

FYDP Coordinator _Dr. Engr. Madeeha Sadia__

Chairperson Dr. Engr. Eraj Humayun Mirza

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07	Engineering and Evaluation of Bio-heal Cool Strip for Biomedical Applications	Samia Umer Fatima Nasir Ifrah Saleem	Dr. Engr. Madeeha Sadia (S) Dr.Engr. Iftikhar Ahmed Channa (Co) Ms. Rehana Kouser (Co)	
08	Nickel foam supported Co-Ni-Cu Metal-Organic Framework Electrode for Electrochemical Detection of Methotrexate in Cancer Therapy	Ayesha M.Ashraf M. Hanzala Abdullah Ansari Sidra Atif	Dr. Engr. Eraj Humayun Mirza (S) Engr. Amna Amin Sethi (Co)	
09	Smart Navigation Aid for The Visually Impaired	Muhammad Sudais Saleem Abdul Rafay Muhammad Subhan Ahsan Javed	Dr. Engr. Danish Mujeeb (S) Dr. Engr. M. Abul Hasan (Co)	
10	EEG- Based Brain -Computer Interface for Assistive Communication	Ramsha Shahid Omar Ahmed Khan Farhan Ehsan Salman Nauman	Engr. Fizza Zia Shaikh (S) Dr. Engr. M. Abul Hasan (Co)	Engr. Manahil. Mustafa Khan, NCL Lab, NEDUET
11	Fabrication and Characterization of Drug-Coated PLA- Based Biodegradable Sutures Using 3D Printing Technology ⁸	Hurma Khan Soha Hanif Jaweria Sohail Shafaq Ajaz Khan	Dr. Engr. Eraj Humayun Mirza (S) Engr. Nafia Jawaid Kurd (Co)	Dr. M. Haseeb Nawaz Managing Director, Bioengineering R&D Pvt. Ltd
12	Multisensory Integration in Braille Learning: A Comparative EEG and Behavioral Study on Sensory Compensation Using Tactile and Auditory Cues	Nimra Khan Umm-e-Aiman Moazzama Khan Aabrah Zaki	Dr. Engr. M. Abul Hasan (S) Dr.Engr. Danish Mujib (Co)	Augustine G. Gill Volunteer good will ambassador at disabled welfare association Pakistan

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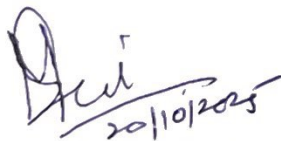
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13	Exploring Brain Activity During Interaction with Large Language Models: An EEG Based Comparative Study	Ramleh Nadeem Laiba Ehsan Sajal Nadeem Iman Hussan	Dr. Engr. M. Abul Hasan (S) Dr. Engr. M. Danish Mujib (Co)	Ms. Manahil Mustafa Khan Ms. Nayab Mubashir, NCL Lab NEDUET
14	Flex Gauge for Smart Rehabilitation	Fasih Ahmed Muhammad Zaki Sakrani Azib Malik Samiullah	Ms. Engr. Fizza Zia Shaikh (S) Dr. Engr. M. Danish Mujib (Co)	
15	Effect of Heat Treatment Methods on Tribological, Electrochemical Properties of Medical-Grade 316L Stainless Steel	Areeb Usman Syed Anas Abdali Huzaifa Ahmed Muhammad Adil Zaki	Dr. Engr. Syed Faraz Jawed (S) Dr. Engr.M. Rizwan (Co)	
16	In-Silico drug repurposing to target epidermal growth factor receptor (EGFR) family proteins in breast cancer resistance	Bareerah Ajaz Zainab Mubashra Sultan	Engr. Madiha Haleem (S) Engr. Amna Amin Sethi (Co)	


20/10/2025

FYDP Coordinator _Dr. Engr. Madeeha Sadia_


Ejaz Humayun Mirza

Chairperson Dr. Engr. Ejaz Humayun Mirza