Project No.	Project Title	Project Summary	Supervisor
1	Personalised Learning Systems using AI	Investigate how AI can support adaptive learning experiences and personalised educational support.	Prof Sajjad Hussain
2	AI for Engineering Design	Learn AI methods to support design exploration and evaluation for undergraduate level circuit design.	Prof Bo Liu
3	Sustainable Engineering and Lifecycle Assessment	Study the assessment of environmental impacts and lifecycle considerations for engineering technologies.	Prof Jeff Kettle
4	Micro/Nano-Scale Energy Harvesting Systems	Study small-scale energy harvesting concepts and their potential use in smart devices.	Dr Qingshen Jing
5	Microfluidic Sensor Study and Simulation	Use modelling and simulation to understand sensor design concepts in microfluidic systems.	Qingshen Jing
6	Smart Biomedical Monitoring Systems	Explore sensing concepts for biomedical monitoring and early-warning healthcare applications.	Dr Masood Ur Rehman
7	Optical Communication Device Study	Study device concepts used in high-performance optical communication systems.	Prof Lianping Hou
8	Advanced Photonic Communication Sources	Study the design and characterisation of photonic sources for communication applications.	Prof Lianping Hou
9	Optical Modulation in Nanoscale Photonic Structures	Study optical modulation mechanisms in nanoscale and photonic structures.	Prof Lianping Hou
10	Wavelength Routing in Integrated Photonic Devices	Explore and study integrated photonic devices for controlling and routing optical wavelengths.	Prof Lianping Hou
11	Atomistic Simulation Using Machine-Learned Models	Study computational modelling approaches for understanding materials at the atomistic scale.	Luiz Felipe Aguinsky
12	Active Metamaterials for Optical Modulation	Investigate and study materials whose properties can be tuned for optical modulation applications.	Dr Hafiz Saad Khaliq
13	Light-Based Wireless Communication Systems	Explore and study the wireless communication systems that use visible light for high-speed connectivity.	Dr Hanaa Abumarshoud
14	Embedded AI for Simple Speech Commands	Build and evaluate compact AI models for recognising simple speech commands.	Dr Atif Jafri
15	Embedded AI for Text Classification	Build a pre-trained text classification model on embedded platforms.	Dr Atif Jafri
16	Embedded AI for Image Classification	Learn about standard image classification models that embed AI workflows.	Dr Atif Jafri
17	Tiny Machine Learning for Custom Image Recognition	Learn about a compact image classifier using a small student dataset.	Dr Atif Jafri
18	Embedded AI for Machine Condition Monitoring	Use embedded AI to detect patterns in machine vibration and support condition monitoring.	Dr Atif Jafri
19	Embedded AI for Audio Pattern Classification	Learn classification of simple audio patterns using lightweight embedded AI tools.	Dr Atif Jafri
20	Embedded AI for Health-Related Audio Detection	Explore simple embedded AI approaches for recognising health-related audio events.	Dr Atif Jafri
21	Embedded AI for Visual Object Recognition	Explore the deployment of compact visual recognition models for controlled educational image datasets.	Dr Atif Jafri
22	Digital Signal Measurement and Analysis	Learn practical skills in measuring, visualising, and analysing digital signals.	Dr Atif Jafri
23	Hardware Acceleration for Digital Signal Processing	Learn about hardware acceleration techniques for efficient digital signal processing.	Dr Atif Jafri
24	Digital Communication Systems Experimentation	Study the principles of digital communication systems through controlled undergraduate level laboratory experimentation.	Dr Atif Jafri
25	Digital Signal Level Measurement Systems	Learn about simple tools for measuring and visualising digital signal levels.	Dr Atif JAfri
26	Programmable Signal Generation for Engineering Education	Study the programmable signal-generation tools for laboratory learning and testing.	Dr Atif Jafri
27	Hands-on Micro/Nano Device Fabrication and Characterisation	Learn practical principles of micro/nano device fabrication and characterisation using publicly available material.	Dr Qusay Al-Taai
28	IoT System Study and Validation Fundamentals	Study and validate simple IoT systems using standard engineering workflows.	Dr Atif Jafri
29	IoT Connectivity and Network Resilience Fundamentals	Explore and learn connectivity, reliability, and resilience concepts in IoT networks.	Dr Atif Jafri
30	Precision Power Measurement and MEMS Sensing	Study precision measurement techniques and MEMS sensing concepts.	Dr Atif Jafri
31	Simulation of Human Motion Signatures	Use simulation tools to study and understand signatures produced by human motion.	Dr Julien Le Kernec
32	Automated Lab-on-a-Chip Systems	Study automation concepts for compact biomedical laboratory systems.	Prof Huabing Yin
33	Energy Load Data Acquisition and Forecasting	Study and assess tools for collecting and forecasting energy-load data.	Dr Muhammad Aslam
34	Speech-Based Emotion Recognition for Human-Robot Interaction	Investigate and explore speech-based emotion recognition for more natural human-robot interaction.	Dr Wasim Ahmad

35	Multilingual Speech and Emotion Recognition	Investigate language identification and emotion recognition in multilingual speech.	Dr Wasim Ahmad