

Skip to content * DSpace * Library * Faculty Members * Degree Verification * Important Contact * Apply Online

- Profile Login

Search for: * Home * Admission * UG Program Research * Degree Requirement * EEE (Course Sequence) * Curriculum * Waiver/Scholarship * Admission * Student Activities * Research Research * Cadence at UIU * CER * Dept Publications * ESRG * Research Areas * Sponsored Projects * Undergraduate Projects * Faculty Members * News & Event Research * News * Events * Notices * Facilities Research * Lab Facilities * VTA * PETA * Resources * ICDRET24 * About Research * Welcome Message * Mission & Vision * Why EEE at UIU * Strength of EEE, UIU * Contact

- Home
- Research

Undergraduate Projects Research * Cadence at UIU * CER * Dept Publications * ESRG * Research Areas * Sponsored Projects * Undergraduate Projects

News

May 6, 2025 Research Opportunity for StudentsFebruary 4, 2025 UIU students successfully visited the United Power Generation and Distribution Company Limited (UPGDCL) Power Plant in the Dhaka Export Processing Zone (DEPZ)January 28, 2025 Successful Completion of Internship program from United Power Plant.January 27, 2025 Seminar on VLSI, Semiconductor Industry, and Career Opportunities with Ulkasemi Successfully Organized at UIUJanuary 21, 2025 Successful Completion of Seminar on Battery Energy Storage Systems (BESS) View more

Notices

June 30, 2025 Advising (Time & Section Selection): Summer 2025 TrimesterJune 30, 2025 Class Routine Summer 2025 BSEEEJune 23, 2025 Notice for Course Evaluation & Instructions Spring 2025June 16, 2025 NOTICE for Course Pre Advising(Summer 2025)June 16, 2025 Exam Template for Summer 2025 Department of EEE View more

Events

April 24, 2025 1:00 pm IEEE PES DAY 2025 at UIUJanuary 19, 2025 2:45 pm Seminar on “BESS Solution For Better Energy Flexibility and Controllability,”January 21, 2025 2:30 pm “Smart Grids: A Solution for a Sustainable Future,”January 11, 2025 2:00 pm Seminar on “Power Sector Job Opportunities in Bangladesh and Preparation Guidelines”January 1, 2025 2:30 pm “Smart Grids: A Solution for a Sustainable Future,” View more

List of Recent Undergraduate Projects

| | YY=year, T=trimester | O=ongoing, C=complete
U=uncertain
---|---|---|---

Project Title | Faculty | Start (YYT) | Current Status

Design and Implementation of a Wearable RFID-based EEG System	IBC	211	On going
Design and implementaion of a wearable ECG watch	IBC	211	On going
Design & Implementation of a Smart Waste Management System using IOT	MME	211	On going
IoT Based Vehicle Speed Monitoring & Road Security System	SdM	211	On going
IOT based smart air pollution monitoring system	MME	211	On going
An efficient feature extraction method for iris recognition system	MKMR	211	On going
Design a Analog-Front-End for Blood Glucose Monitoring System	IBC	211	On going
Solar PV Based Electric Cooking	IA	203	On going
Development of an Internet of Things Based Low-Cost Smart Metering and Billing System for Off-Grid Transportable Power Supply System	KIUA	203	On going
IoT Based Automatically Water Quality Monitored Bio-floc System	KIUA	203	On going
Optimization of energy usage for electrical appliances using IoT	ME	203	On going

Wearable solar power system | SdM | 203 | On going

Smart Three Wheeler Electric Vehicles – Concerns towards a Sustainable Technology | IA | 202 | On going

Design of a High Efficiency Tandem Organic Solar Cell | IBC | 202 | Completed

Design of an ISFET using Silvaco Athena Tool | IBC | 202 | Completed

Smart Door Unlock System | HB | 201 | Completed

Design of graphene ISFET based Wearable Sweat Sensor for Point Of Care diagnosis. | IBC | 201 | Completed

Investigation of DNA Sequencing of a FET-biosensor Implemented in Cadence | IBC | 201 | Completed

Vehicle to Vehicle (V2V) Communication for Prevention of Road Accident | KIUA | 201 | Completed

Low-Power High-Voltage Charge Pumps for Implantable Microstimulators. | MdHn | 201 | Completed

Digitization of Farming | MKMR | 201 | Completed

A Comparative analysis between energy storage system and peaking power plant in the context of Bangladesh | MRK | 201 | Completed

Versatile Unmanned Aerial Vehicle System Design Solution for Feasible Communication Connectivity and Commercial Delivery System | RM | 201 | Completed

IoT Based Non-invasive Glucometer | IBC | 193 | Completed

GSM & Solar Based Automatic Irrigation System | KIUA | 193 | Completed

Wireless Optical Data Transmission for Implantable Biomedical Device | MdHn | 193 | Completed

Autonomous Inspection Robot for Power Transmission Lines | MdRu | 193 | Completed

Solar PV Driven Mechanized Rice Husking and Transportation System | MRK / AvSa | 193 | Completed

Text to Braille Converter | RM | 193 | Completed

Design and Implementation of a Position Synchronous Robotic Arm | HB | 192 | Completed

Fire Fighter Drone | IBC | 192 | Completed

Design of High Efficiency Solar Cell | IBC | 192 | Completed

Sign Language Translator | KIUA | 192 | Completed

Voice Controlled Intelligent Wheel chair | MdHn | 192 | Completed

Design of Analog Front End Circuit for Bio-signal Detection | MdHn | 192 | Completed

Design of a Bi-Directional Wireless Data Transceiver System for Implantable Biomedical Device | MdHn | 192 | Completed

Bi-directional DC-DC Converter for Energy Storage System | MdRu | 192 | Completed

IOT Based Smart Medicine Box | ME | 192 | Completed

GSM Based Smart Meter for Priority Load Shedding | MRK | 192 | Completed

Study of Trapezoidal Voltage Generating Synchronous Machines for Future DC Power | MRK | 192 | Completed

Power Theft Detection and Energy Monitoring by Authority using Wireless Communication | HB | 191 | Completed

Design and Simulation of Automatic Power Factor Correction | HB | 191 | Completed

Coordination Between Visualization and Execution of Movements | KIUA | 191 | Completed

Coordination between Visualization and Execution of Movements | KIUA | 191 | Completed

Automatic Medicine Guide and Personal Health Care | MdAbH | 191 | Completed

IOT based Rescue Robot Car | MdAbH | 191 | Completed

Wifi Control Rescue Robot using Arduino | MdAbH | 191 | Completed

Stimulating Piezoelectric Sensor via Footstep for Power Generation | MdZA | 191 | Completed

Voice Recognized Household System | MKMR | 191 | Completed

Energy Harvesting | MRK | 191 | Completed

Smart Vehicle and Traffic Controller | RM | 191 | Completed

Wireless Notice Board using GSM | HB | 183 | Completed

Solar Power based Refrigerator | IBC | 183 | Completed

GSM based Home Protection System | IBC | 183 | Completed

Advanced Energy Meter | IBC | 183 | Completed

Design of a Modern Electric Stove with Improved Performance | Mahmud Ibrahim | 183 | Completed

Designing a 6 bit SAR (Successive Approximation Register) ADC using CMOS 90 nm Technology | MdHn | 183 | Completed

Cell Phone Charger using Witricity | MdHn | 183 | Completed

Grid Stability with Distributed Energy Storage System | MdRu | 183 | Completed

Google Assistant Control Home Automation System with GSM Based Smart Door Unlock | MdZa | 183 | Completed

Flight Simulation Training Device | MKMR | 183 | Completed

Flight Simulation Training Device | MKMR | 183 | Completed

Maximum Power Harvesting | MKMR | 183 | Completed

IOT Based Home Automation System | Nadeem | 183 | Completed

Smart Street Lighting System based on Solar Power and Grid | Nadeem | 183 | Completed

Wireless System Design and Deployment Strategy for Environments with Poor Coverage Characteristics | RM | 183 | Completed

Control of Li-ion Battery Charger with a buck converter | MdRu | 173 | Completed

Control of Grid Connected Inverter | MdRu | 173 | Completed

Design of Maximum Power Point Tracking Algorithm | MdRu | 173 | Completed

Implementation of Digital Energy Meter | MdRu | 173 | Completed

Design and Implementation of a RISC Processor in both Verilog and Custom Layout | SAmD | 173 | Completed

High Speed Low Latency Floating Point FFT Design | SAmD | 173 | Completed

Schematic / Layout design and Automation of DDR SDRAM for ASIC | SAmD | 173 | Completed

Study of Design For Testability: Automatic Test Pattern Generation | SAmD | 173 | Completed

Optimization techniques in Distributed Generation (DG) allocation in primary distribution networks for voltage profile improvement and loss reduction. | HB | 172 | Completed

Energy auditing of an Industry and use of Solar PV system | IA | 172 | Completed

Smart Energy meter for Solar Nano Grid | IA | 172 | Completed

A Comparative Study of Different PV Simulation Software through Analysis of a SHS | AvSa | 171 | Completed

Reliability Analysis of a Solar Minigrid | HB | 171 | Completed

Design of Inverted Pendulum as a demo of control system | MKMR | 171 | Completed

Design and Cost Analysis of a Grid Connected Solar PV Plant | AvSa | 163 | Completed

Design of a Phase Locked Loop (PLL) | MSAH | 163 | Completed

Communication system design for airborne vehicles | RM | 163 | Completed

Study of Handoff for outdoor-indoor transition for Residential Femtocell deployment | RM | 163 | Completed

E/M Health System | KIUA | 161 | Completed

Design of Broadband Network for remote areas in Bangladesh | RM | 161 | Completed

TCAD Implementation and Verilog A Modeling of CNT Based FinFET | IBC | 153 | Completed

TCAD Implementation and Verilog A Modeling of Ion Sensitive FinFET | IBC | 153 | Completed

TCAD Implementation and Verilog A Modeling of Negative Capacitance FET | IBC | 153 | Completed

Water purification using solar heating | KAAr | 153 | Completed

Detection of Caridac Autonmic Neuropathy | KIUA | 153 | Completed

Mobile phone for screening heart diseases in diabetic patients | KIUA | 153 | Completed

Performance analysis of Maximum Transfer Unit (MTU) using OPNET | ME | 153 | Completed

Design of a Sample and Hold Amplifier in 180nm CMOS process using Cadence | MNC | 153 | Completed

Power Flow Analysis for an AC microgrid | NIN | 153 | Completed

Load sharing in a DC microgrid using autonomous control | NJd | 153 | Completed

Design and Performance Analysis of Microstrip Antenna for 5G communications | BKM | 152 | Completed

Design and simulation of smart antenna | BKM | 152 | Completed

Improvement of Automatic Generation control for DEPZ power plant | FYK | 152 | Completed

Human Machine Interface (HMI) | KM | 152 | Completed

Design of a 48V to 220V DC-DC converter for 3.5kW Solar Nano Grid | MNC | 152 | Completed

Smart Family Health Care System | MNH / KM | 152 | Completed

Simulation and Parameter extraction of PIN Solar Cell | MRKA | 152 | Completed

Design of a Low Phase Noise Microwave Oscillator | MSAH | 152 | Completed

Blood sugar monitoring by smart phone | N. M. Huda/K. A. Mamun (KM) | 152 | Completed

Telecom Policy in Bangladesh Perspective | TSa | 152 | Completed

D-q axis field control of an Alternator for better regulation | FYK | 151 | Completed

Implementation of smart grid and FACTs in the mini grid solar PV system | FYK | 151 | Completed

Prospect of solar PV based Power generation in the marshy lands of bangladesh | FYK | 151 | Completed

Study and implementation of different techniques for improvement of solar PV system efficiency | FYK | 151 | Completed

FPGA Based Digital Oscilloscope | GER | 151 | Completed

Mars Rover | GER | 151 | Completed

MCU Based VAR compansation system | GER | 151 | Completed

Solar Charge Controllor Design Using Cadence | IBC | 151 | Completed

Simulation of Multi Channel Top Gated CNTFET Using COMSOL | MRKA | 151 | Completed

Automated Conveyor System | MWK | 151 | Completed

Prospect of FACTs in Bangladesh Power System | MWK | 151 | Completed

Network schedulers for 4G system | RM | 151 | Completed

Space Time Processing for LTE networks | RM | 151 | Completed

3-D path instructor for a blind person using Artificial intellengence | SAC | 151 | Completed

48V to 220V , 2kW dc-dc converter for solar nano grid and irrigation | SAC | 151 | Completed

Design of a low voltage distribution system for small scale power plant. | SAC | 151 | Completed

Application of Solar thermal power for rural people | SMLK | 151 | Completed

Design and developemnt of DC energy meter for solar power | SMLK | 151 | Completed

Wireless Power Transfer, Large Power | SMLK | 151 | Completed

Face Categorization | AbAH | 143 | Completed

Flying Surveillance Robot (dron), Part-2 | GER | 143 | Completed

Land Surveillance Robot (3D mapping of unknown inner area) Part-2 | GER | 143 | Completed

A Fuzzy-Logic based Speed control approach for Induction Motor | HB | 143 | Completed

Design and Implementation of digital frequency relay | HB | 143 | Completed

Design and Implementation of smart automated voting Machine | HB | 143 | Completed
Graphene Nanoribbon FET Based OPAMP Design using Cadence | IBC | 143 | Completed
Pico Solar Grid | MWK | 143 | Completed
Automatic solar irrigation system with remote monitoring | SAC | 143 | Completed
Basic Standard Cell Design using Cadence Virtuoso for ASIC | SAmD | 143 | Completed
Design and Implementation of Solar Powered Boat | SMLK | 143 | Completed
Detection of Electricity Theft | SMLK | 143 | Completed
Smart Metering System | SMLK | 143 | Completed
Wireless Power Transfer, Small Power | SMLK | 143 | Completed
Application of FACTs in the transmission network of Bangladesh | FYK | 142 | Completed
Economic Load Despatch in Grid-connected and Distributed Environment | HB | 142 | Completed
Simulation of Substation integrated monitoring system using LABVIEW | HB | 142 | Completed
BiSFET Based OPAMP Design Using Cadence | IBC | 142 | Completed
Graphene FET Based OPAMP Design using Cadence | IBC | 142 | Completed
InAs-Channel/Al2O3-Gated GAA FET based OPAMP Design Using Cadence | IBC | 142 | Completed
Health Mangagment System for Diabetic Patient | KIUA | 142 | Completed
Bi directional dc-dc converter for solar nano grid system | SAC | 142 | Completed
Development and feasibility study of solar auto rickshaw project in Bangladesh | SAC | 142 | Completed
Design of a Micrstrip Patch Antenna for GNSS | BKM | 141 | Completed
Simulation and Performance Analysis of LTE 4G network | BKM | 141 | Completed
Breast Cancer Detection from Mammogram | HAK | 141 | Completed
WCE image segmentation | HAK | 141 | Completed
Optical Gated CNT Based Full Adder Design Using Cadence | IBC | 141 | Completed
Quantum Dot Gate Based Ternary ALU Design Using Cadence | IBC | 141 | Completed
Classificaiton of ERP for Brain Computer Interface (BCI) | KIUA | 141 | Completed
Charge Controller for Solar Home Sytem | MKMR | 141 | Completed
Femtocell network routing and throughput estimation | RM | 141 | Completed
LTE Simulator development and channel estimation | RM | 141 | Completed
Design of a dual band Micrstrip Patch Antenna for wireless communication using Ansoft | BKM | 133 | Completed
Performance and cost estimation of a wind farm using RETscreen | BKM | 133 | Completed
Data Mining & Visualization by Self-Organizing Map | MKMR | 132 | Completed
Detection of Valvular Heart disease using PCG | MKMR | 132 | Completed

Follow Us

* * * * *

About UIU

- Why UIU
- Vision Mission Goals
- General Information
- UIU Campus
- Guiding Principles
- Ranking & Accreditation
- Convocation
- Gallery
- Media
- Career
- Contact

Departments

- Dept. of CSE
- B.Sc in Data Science
- Dept. of EEE
- Dept. of Civil Engineering
- Dept. of Pharmacy
- Dept. of English
- Dept. of EDS

- [Dept. of MSJ](#)
- [SoBE \(BBA, AIS, MBA, EMBA\)](#)
- [Dept. of Economics](#)
- [Dept. of BGE](#)

Admission

- [Admission](#)
- [Tuition Fees & Waiver](#)
- [Admission Requirements](#)
- [Admission Test Result](#)
- [Admission Procedure](#)
- [Admission Dates](#)
- [International Studentsâ€™ Admission](#)
- [Global Opportunities](#)
- [International Collaboration](#)
- [FAQ](#)

Important Links

- [Time Schedule of Shuttle Services](#)
- [Student Transportation Service](#)
- [Payment Procedure](#)
- [Student e-Resources](#)
- [Important Contact](#)

Quick Links

- [UCAM](#)
- [eLMS](#)
- [Parent Portal](#)
- [Online Classroom Booking](#)
- [Degree Verification](#)
- [Necessary Forms](#)
- [Notice](#)
- [News](#)
- [Event](#)
- [EEE Old Site](#)

United City, Madani Ave, Dhaka 1212 * [Privacy Policy](#) * [Accessibility Assistance](#) * [Copyright](#) * [Site Information](#)