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| *Heaven’s Light is Our Guide*    **Industrial Training at BJIT Group.**  By  Syed Mahmudul Imran  (2010058)  Industrial Training (ECE-4100)  Duration of Training (3rd – 15th March)  **Supervisor:**  Prof. Dr. Md. Anwar Hossain  Professor  Rajshahi University of Engineering & Technology  Faculty of Electrical & Computer Engineering  Department of Electrical & Computer Engineering  Rajshahi-6204 |
| *Heaven’s Light is Our Guide*    **Lab Reports**  By  Syed Mahmudul Imran  (2010058)  **Course Code:** ECE-4124  **Course Title:** Digital Signal Processing Sessional  **Date of Submission:** October 29, 2025  **Submitted To:**  Md. Faysal Ahamed, Asst. Professor,  Moloy Kumar Ghosh, Lecturer,  ECE, RUET  Rajshahi University of Engineering & Technology  Faculty of Electrical & Computer Engineering  Department of Electrical & Computer Engineering  Rajshahi-6204 |

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| *Heaven’s Light is Our Guide*    **Lab Reports**  By  Syed Mahmudul Imran  (2010058)  **Course Code:** ECE-4128  **Course Title:** VLSI Design Sessional  **Date of Submission:** October 29, 2025  **Submitted To:**  Md. Faysal Ahamed, Asst. Professor,  Moloy Kumar Ghosh, Lecturer,  ECE, RUET  Rajshahi University of Engineering & Technology  Faculty of Electrical & Computer Engineering  Department of Electrical & Computer Engineering  Rajshahi-6204 |

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| *Heaven’s Light is Our Guide*    **Lab Reports**  By  Syed Mahmudul Imran  (2010058)  **Course Code:** MTE-4118  **Course Title:** Control System and Robotics Sessional  **Date of Submission:** October 29, 2025  **Submitted To:**  Md. Faisal Rahman Badal, Asst. Professor,  Sakib Hassan Chowdhury, Lecturer,  MTE, RUET  Rajshahi University of Engineering & Technology  Faculty of Electrical & Computer Engineering  Department of Electrical & Computer Engineering  Rajshahi-6204 |

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| *Heaven’s Light is Our Guide*    **Lab Reports**  By  Syed Mahmudul Imran  (2010058)  **Course Code:** ECE-4144  **Course Title:** Biomedical Engineering Sessional  **Date of Submission:** October 29, 2025  **Submitted To:**  MD Mayenul Islam,  Assistant Professor,  EEE, RUET  Rajshahi University of Engineering & Technology  Faculty of Electrical & Computer Engineering  Department of Electrical & Computer Engineering  Rajshahi-6204 |

**ECE-4124**

**Digital Signal Processing Sessional**

**Credit: 0.75**

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| **SI. No.** | **Name of the Experiment** |
| 1 | Study of Impulse, Step, and Ramp signals and their inter-relationships |
| 2 | Study of Shifting, Folding & Scaling of Discrete Signals |
| 3 | Study of Linear and Circular Convolution, Cross-Correlation, and  Auto-Correlation of Discrete Signals |
| 4 | Performing DFT to compute Convolution Between Two Signals |
| 5 | Implementation of FFT and IFFT on Discrete Signal |
| 6 | Design & Analysis of a Low-Pass FIR and IIR Filter & Their frequency  Response Comparisons |

**ECE-4128**

**VLSI Design Sessional**

**Credit: 0.75**

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| **SI. No.** | **Name of the Experiment** |
| 1 | Implementation of CMOS Inverter. |
| 2 | Implementation of NMOS Ratio-less Inverter. |
| 3 | Implementation NAND Gate and NOR Gate Using CMOS |
| 4 | Design and Observe the Characteristics Curve of CMOS Circuit |
| 5 | Study and Simulation of 1-Bit SRAM Using Microwind |
| 6 | Implementation of Half Adder Circuit Using CMOS in Microwind |

**MTE-4118**

**Digital Signal Processing Sessional**

**Credit: 0.75**

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| **SI. No.** | **Name of the Experiment** |
| 1 | Study on Industrial Robotic Trainer Kit With Different Functionality; Pick  and Place Operation |
| 2 | Experiment on Control Controllability and Observability of a System |
| 3 | Speed Control of DC Motor Using Closed Loop Feedback Control With  PID Controller |
| 4 | Investigate the Forward Kinematics of a 2 DOF Manipulator Using  Simscape and Robotic System Toolbox |
| 5 | Root Locus and Time Response Analysis of DC Motor under PID, PI, and  PD Control |

**ECE-4144**

**Course Title: Biomedical Engineering Sessional**

**Credit: 0.75**

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| **SI. No.** | **Name of the Experiment** |
| 1 | Study of ECG Signal Using Digital Electrocardiogram Device |
| 2 | Analysis of an Electroencephalogram (EEG) Signal |
| 3 | Experimental Observation of Various Features of an ECG Signal Collected  from PhysioNet Public Dataset |
| 4 | Observation of Various Features of an EEG Signal Collected from Kaggle  MNE Database |