Diploma in Electronics and Communication Engineering Lab Facilities

Sl. No	Course Code	Name of the Course
1	N1DK201B	Fundamentals of Electrical and Electronics Engineering Lab
2	N1DK302B	Electronic Devices and Circuits Lab
3	N1DK303C	Principle of Digital Electronic Lab
4	N1DK301B	Network Filters and Transmission Lines Lab
5	N1DK401B	Antenna, Microwave & Radar Engineering Lab
6	N1DK402B	Microprocessor And its Application Lab
7	N1DK403B	Electronic Instruments and Measurement Lab
8	N1DK405C	Principle of Communication Engineering Lab
9	N1DK404B	Electronics Design and Simulation Lab
10	N1DK506L	Troubleshooting of the Electronic Equipment Lab
11	N1DK505C	Linear Integrated Circuits Lab
12	N1DK504B	Microcontroller and Embedded System Lab
13	N1DK503B	Industrial Electronics and Transducers Lab
14		Project/Industrial Internship
15		Industrial Training

DESCRIPTION OF IMPORTANT LABS

FUNDAMENTALS OF ELECTRICAL AND ELECTRONICS ENGINEERING LAB (N1DK201B)

This lab introduces the basic concepts of electrical and electronics engineering. Students learn to construct and test simple circuits, study the characteristics of electrical components, and measure voltage, current, and resistance. It provides a foundation for understanding electronic devices and circuits.

ELECTRONIC DEVICES AND CIRCUITS LAB & LINEAR INTEGRATED CIRCUITS LAB (N1DK302B & N1DK505C)

These labs focus on the study and applications of electronic devices such as diodes, transistors, and ICs. Students perform experiments to analyze device characteristics, design amplifiers, rectifiers, oscillators, and signal processing circuits. The labs provide hands-on experience in device behavior and linear IC applications.

PRINCIPLE OF DIGITAL ELECTRONIC LAB (N1DK303C)

This lab deals with digital electronics and logic design. Students implement and test circuits using logic gates, flip-flops, counters, and other digital components to demonstrate their understanding of these concepts. It helps in understanding digital signal processing and the practical functioning of digital systems.

NETWORK FILTERS AND TRANSMISSION LINES LAB (N1DK301B)

This lab focuses on experiments involving electrical networks, filters, and transmission lines. Students verify network theorems, analyze filter responses, and study signal propagation. It bridges theoretical knowledge with practical circuit analysis and measurement techniques.

ANTENNA, MICROWAVE & RADAR ENGINEERING LAB (N1DK401B)

This lab focuses on antennas, microwave devices, and radar systems. Students measure antenna parameters, study microwave propagation, and perform experiments related to radar principles. The lab provides practical insights into high-frequency communication systems.

MICROPROCESSOR AND MICROCONTROLLER LABS (N1DK402B & N1DK504B)

These labs introduce microprocessor and microcontroller architecture, programming, and interfacing. Students design small-scale applications, interface sensors and actuators, and develop embedded system projects. The labs enhance understanding of control, data processing, and real-time automation.

ELECTRONIC INSTRUMENTS AND MEASUREMENT LAB (N1DK403B)

This lab teaches the use of electronic instruments for measurement and testing. Students work with multimeters, oscilloscopes, and signal generators to perform experiments. It emphasizes accuracy, measurement techniques, and error analysis in electronic systems.

PRINCIPLE OF COMMUNICATION ENGINEERING LAB (N1DK405C)

This lab focuses on analog and digital communication systems. Students perform experiments on modulation, demodulation, and signal analysis to understand communication system operation and performance evaluation.

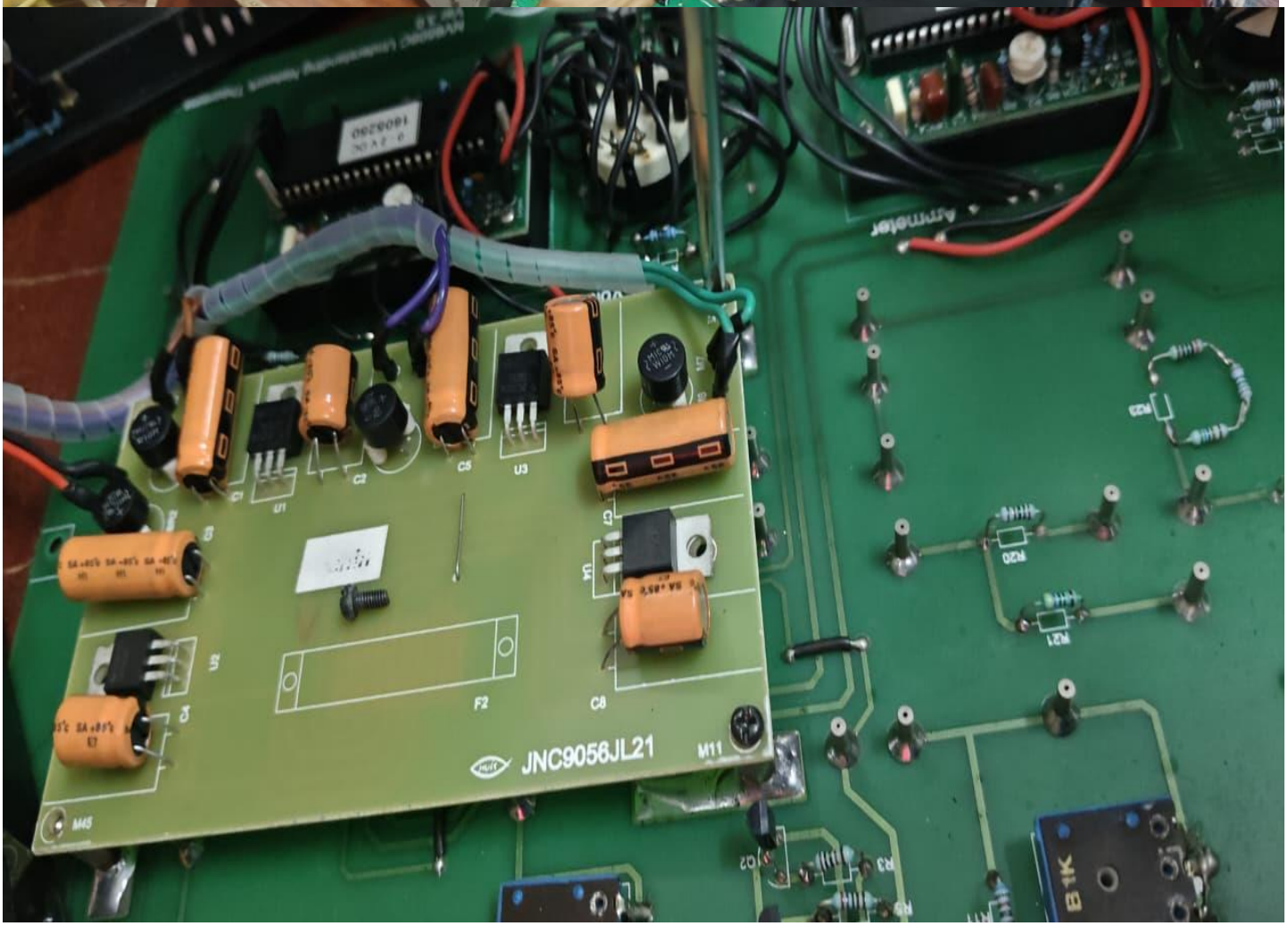
ELECTRONICS DESIGN AND SIMULATION LAB (N1DK404B)

This lab emphasizes the design and simulation of analog and digital circuits using software tools. Students model, test, and validate circuits, developing skills in design and practical application of theoretical concepts.

TROUBLESHOOTING OF ELECTRONIC EQUIPMENT LAB (N1DK506L)

This lab focuses on diagnosing and repairing electronic circuits and systems. Students learn fault detection, troubleshooting methods, and maintenance techniques, enhancing practical skills for real-world electronics

repair.



INDUSTRIAL ELECTRONICS AND TRANSDUCERS LAB (N1DK503B)

This lab deals with industrial electronic devices, sensors, and transducers. Students perform experiments in signal conditioning, measurement, and control systems. It bridges theoretical knowledge with practical industrial applications.