Subject Code	Category Code	Subject Name	Theory Slot				Practical Slot		Total Marks	Contact Hr./week			Total Credits
			Minor Evaluation I	Minor Evaluation II	Quiz/ Assignment Marks	Major Evaluation	Continuous Evaluation/ Lab work & Sessional	Major Evaluation		L	T	P	
14251109	PBL	Micro Project-I					70	30	100	-	-	2	1

Micro Project-I (14251109)

Subject Name: Micro Project-I
Subject Code: 14251109

List of Micro-projects

1. Automatic Street Light controller Using LDR
2. Burglar Alarm and smoke detector System
3. Digital Dice Using 555 Timer
4. Fire Alarm Using Thermistor
5. Touch-Activated Light Switch
6. IR-Based visitor counters
7. Fan Speed Controller Using Thermistor
11. Traffic Signal Controller Using Arduino
12. Line Follower Robot (Basic)
13. Temperature Display Using LM35 and Arduino
14. Automatic Hand Sanitizer Dispenser
15. Smart Dustbin Using Ultrasonic Sensor
16. Light Intensity Meter Using LDR and Arduino
17. Automatic Plant Watering System
18. Password-Based Door Lock System
19. Heartbeat Monitor Using Arduino
20. IR Remote Controlled Home Appliances
21. Simple FM Receiver
22. Morse Code Encoder and Decoder
23. IR Communication Between Two Microcontrollers
24. Bluetooth-Based LED Control
25. Walkie-Talkie Using Simple RF Modules
26. Voice-Controlled LED System Using Android App
27. Wireless Power Transfer (Inductive Coupling)
28. GSM-Based Location Tracker (Basic Concept)
29. RF-Based Wireless Switch
30. Basic Intercom System Using Op-Amps
31. Solar Mobile Charger
32. Solar-Powered LED Lighting System
33. Wind-Powered Battery Charger
34. Power Bank Using 18650 Cells

35. Automatic Night Lamp Using Solar Panel
36. Mini Inverter Circuit
37. Energy Saver for Room Lighting
38. Solar Tracker Using LDR
39. Bicycle Dynamo Charger
40. Emergency Light Using Rechargeable Battery
41. Design Half-Wave and Full-Wave Rectifier Circuits
42. Design and Implementation of Clipper and Clamper Circuits
43. 555 Timer-Based Flashing Lamps
44. Design of a 5V Regulated DC Power Supply
45. Light Detection Circuit Using LDR
46. Automatic Night Lamp Using LDR and Transistor
47. Flasher Circuit Using Transistors or 555 Timer
48. Rain Alarm Using Conductive Plates and Buzzer
49. Fire Alarm Using Thermistor or Temperature Sensor
50. Cleaning and wiping robots
51. Laser-Based Security Alarm System
52. Visitor Counter Using IR Sensors and 7-Segment Display
53. Water Level Indicator Using Probes and LEDs
54. Battery Charger Circuit Using Diodes and Voltage Regulator
55. Touch-Activated Switch Using BJT
56. Simple LED Blinker Using 555 Timer
57. Automatic Night Light Using Op-Amp Comparator
58. Temperature-Based Fire Detection Circuit
59. Electronic Dice Simulator Using LEDs
60. Temperature-Controlled Fan Using LM35 or Thermistor
61. LED cube for light show.
62. Create a weather information fetcher in Python.
63. Develop a C-based file transfer tool over TCP/IP.
64. Build a Python tool that fetches and displays a random quote of the day.
65. Create a simple login server in Java.
66. Develop a login system in C++.
67. Build a user sign-up and login backend in Python using JSON.
68. Design a Java application that locks personal notes behind a PIN.
69. Create a simple OTP-based validation system in Python.
70. Build a multi-user login system in C.
71. Develop a result analyzer in Java.
72. Create an attendance tracking system in Python.
73. Build an electricity billing system in C++.
74. Implement a fee management system in Java.
75. Create a mess billing software in Python.
76. Design a CLI-based Tic Tac Toe game in C++.
77. Build a Snake game in Python using the curses module.
78. Develop a Rock Paper Scissors tournament system in Java.
79. Construct a quiz game in C.
80. Library Book Management System using C++.