# IoT (Internet of Things)

- 1. Smart Home Automation System
- 2. IoT-Based Health Monitoring System
- 3. Smart Agriculture System
- 4. IoT-Enabled Parking Management System
- 5. Intelligent Street Lighting System
- 6. IoT-Based Smart Grid
- 7. Smart Waste Management System
- 8. IoT-Enabled Air Pollution Monitoring
- 9. Smart Water Quality Monitoring System
- 10. IoT-Based Energy Meter

### **Embedded Systems**

- 11. Real-Time Heart Rate Monitor
- 12. Smart Traffic Light System
- 13. Automated Irrigation System
- 14. Smart Wheelchair
- 15. Home Security System with Face Recognition
- 16. Embedded System for Industrial Automation
- 17. GPS-Based Location Tracker
- 18. Digital Voting Machine
- 19. Automatic Door Opener with RFID
- 20. Fire Detection and Alarm System

### **Wireless Communication**

- 21. Wireless Power Transfer System
- 22. Li-Fi Data Transmission System
- 23. Wireless Weather Monitoring System
- 24. Zigbee-Based Wireless Communication
- 25. Wireless Sensor Network for Environmental Monitoring
- 26. RF-Based Home Automation System
- 27. Wireless Patient Monitoring System
- 28. Bluetooth-Based Data Logger
- 29. Wireless Toll Collection System
- 30. Wireless Audio Transmission System

### Robotics

- 31. Autonomous Delivery Robot
- 32. Line Following Robot

- 33. Fire Fighting Robot
- 34. Gesture Controlled Robot
- 35. Surveillance Robot with Night Vision Camera
- 36. Obstacle Avoidance Robot
- 37. Swarm Robotics
- 38. Humanoid Robot
- 39. Voice-Controlled Robot
- 40. Underwater Exploration Robot

## **Signal Processing**

- 41. Speech Recognition System
- 42. Image Compression Using Wavelet Transform
- 43. Digital Watermarking System
- 44. Real-Time Object Detection
- 45. ECG Signal Analysis
- 46. Noise Reduction System
- 47. Digital Audio Equalizer
- 48. Face Detection and Recognition
- 49. Real-Time Video Processing
- 50. Biomedical Signal Processing

### **Renewable Energy**

- 51. Solar-Powered Mobile Charger
- 52. Wind Energy Harvesting System
- 53. Hybrid Renewable Energy System
- 54. Smart Grid with Renewable Energy
- 55. Solar Tracking System
- 56. Energy Harvesting from Vibrations
- 57. Piezoelectric Energy Harvesting
- 58. Solar-Powered Street Light
- 59. Green Energy Monitoring System
- 60. Micro-Hydro Power Generation

## **Communication Systems**

- 61. Software-Defined Radio
- 62. Satellite Communication System
- 63. Optical Fiber Communication
- 64. Antenna Design and Analysis
- 65. 5G Communication System
- 66. Wireless Body Area Network
- 67. Underwater Communication System

- 68. Visible Light Communication
- 69. Cognitive Radio Network
- 70. Radio Frequency Identification (RFID)

## VLSI (Very Large Scale Integration)

- 71. FPGA-Based System Design
- 72. ASIC Design for Low Power Consumption
- 73. Digital Signal Processor Design
- 74. VLSI for Cryptography
- 75. High-Speed Data Converter
- 76. Low Power VLSI Design
- 77. Reconfigurable Computing Systems
- 78. VLSI for Image Processing
- 79. System on Chip (SoC) Design
- 80. Mixed-Signal VLSI Design

### Automation

- 81. Home Automation Using PLC
- 82. Automated Guided Vehicle (AGV)
- 83. Industrial Process Automation
- 84. Automated Assembly Line
- 85. Intelligent Transportation System
- 86. Smart Factory Automation
- 87. Automated Warehouse Management
- 88. Automated Inventory Control
- 89. Remote Monitoring System for Automation
- 90. SCADA System for Industrial Automation

## **Control Systems**

- 91. PID Controller Design
- 92. Adaptive Control System
- 93. Robotic Arm Control System
- 94. Fuzzy Logic Controller
- 95. Distributed Control System (DCS)
- 96. Model Predictive Control
- 97. Real-Time Control System
- 98. Automatic Cruise Control
- 99. Inverted Pendulum Control
- 100. Autonomous Vehicle Control System

## **Biomedical Engineering**

- 101. Wearable Health Monitoring System
- 102. Portable ECG Device
- 103. Smart Prosthetic Limb
- 104. Automated Insulin Pump
- 105. Telemedicine System
- 106. Biomedical Signal Acquisition System
- 107. Health Monitoring Wearable for Elderly
- 108. Non-Invasive Glucose Monitoring
- 109. Smart Hearing Aid
- 110. Biometric Authentication System

### **Power Electronics**

- 111. Smart Inverter System
- 112. Power Factor Correction System
- 113. Electric Vehicle Charging Station
- 114. Wireless Power Transmission
- 115. High-Efficiency DC-DC Converter
- 116. Solid State Transformer
- 117. Power Quality Monitoring System
- 118. Switched Mode Power Supply (SMPS)
- 119. Solar Power Converter
- 120. Uninterruptible Power Supply (UPS)

### Artificial Intelligence and Machine Learning

- 121. Predictive Maintenance System
- 122. Autonomous Drone Navigation
- 123. AI-Based Traffic Prediction
- 124. Machine Learning for Medical Diagnosis
- 125. Intelligent Chatbot System
- 126. Fraud Detection System
- 127. AI-Powered Surveillance System
- 128. Speech to Text Converter
- 129. AI-Based Stock Market Prediction
- 130. Automated Essay Scoring System

### Nanotechnology

- 131. Nanoelectronics for Data Storage
- 132. Nanosensors for Environmental Monitoring
- 133. Nanorobots for Medical Applications
- 134. Nano-Optoelectronic Devices
- 135. Nanoscale Transistors

- 136. Nanotechnology for Drug Delivery
- 137. Nanomaterials for Energy Storage
- 138. Nano-Coatings for Corrosion Protection
- 139. Nano-Bio Sensors
- 140. Nano-Fabrication Techniques

### Cybersecurity

- 141. Intrusion Detection System
- 142. Secure Communication System
- 143. Blockchain-Based Security System
- 144. Cybersecurity for IoT Devices
- 145. Secure Data Transmission Using Cryptography
- 146. Al for Cyber Threat Detection
- 147. Network Security Monitoring System
- 148. Biometric-Based Authentication System
- 149. Secure Cloud Storage System
- 150. Malware Analysis and Detection

### **Cloud Computing**

- 151. Cloud-Based IoT Platform
- 152. Cloud-Based Data Backup System
- 153. Cloud-Enabled Smart Home
- 154. Cloud Computing for Big Data Analysis
- 155. Cloud-Based Healthcare System
- 156. Cloud-Based Resource Management
- 157. Cloud Storage Optimization
- 158. Cloud-Based Learning Management System
- 159. Cloud-Based Financial Management System
- 160. Cloud-Based Collaboration Tools

### Networking

- 161. Software-Defined Networking (SDN)
- 162. Network Traffic Analysis
- 163. Wireless Mesh Network
- 164. Network Security System
- 165. IoT Network Design
- 166. Network Protocol Simulation
- 167. Network Performance Monitoring
- 168. Virtual Private Network (VPN)
- 169. Network Function Virtualization (NFV)
- 170. Internet Exchange Point (IXP) Design

### **Renewable Energy Integration**

- 171. Smart Grid with IoT
- 172. Renewable Energy Management System
- 173. Energy Storage System for Solar Power
- 174. Wind Turbine Control System
- 175. Microgrid Design and Implementation
- 176. Hybrid Energy System Optimization
- 177. Renewable Energy Forecasting
- 178. Smart Charging Stations for EVs
- 179. Grid-Tied Solar Power System
- 180. Distributed Energy Resource Management

### **Advanced Sensors**

- 181. MEMS-Based Sensor Design
- 182. Smart Gas Sensor
- 183. Optical Sensors for Environmental Monitoring
- 184. Smart Pressure Sensor
- 185. Biosensors for Health Monitoring
- 186. Intelligent Temperature Sensor
- 187. Smart Motion Sensor
- 188. Wireless Sensor Networks
- 189. Smart Humidity Sensor
- 190. Sensor Fusion for Robotics

#### **Miscellaneous**

- 191. Smart Helmet for Safety
- 192. Automated Traffic Management System
- 193. Gesture Recognition System
- 194. Smart Shopping Cart
- 195. Smart Mirror with Voice Assistant
- 196. Augmented Reality System
- 197. Smart City Infrastructure
- 198. Virtual Reality Headset
- 199. Intelligent Home Appliances
- 200. Smart Campus Solutions