

## **Artificial Intelligence and Machine Learning**

1. Deep Learning for Image Classification
2. Natural Language Processing for Sentiment Analysis
3. Reinforcement Learning for Game Strategies
4. Machine Learning for Predictive Maintenance
5. AI in Healthcare Diagnostics
6. Speech Recognition and Synthesis
7. Generative Adversarial Networks (GANs)
8. AI for Financial Forecasting
9. Autonomous Vehicle Navigation
10. AI-Based Personalized Recommendations
11. Transfer Learning for Small Datasets
12. Machine Learning for Fraud Detection
13. Deep Reinforcement Learning for Robotics
14. AI in Natural Language Translation
15. AI for Medical Image Analysis
16. Machine Learning for Climate Change Predictions
17. Sentiment Analysis in Social Media
18. Real-Time Object Detection Systems
19. AI in Drug Discovery
20. Predictive Analytics in Marketing

## **Robotics and Automation**

21. Design of Autonomous Drones
22. Robot-Assisted Surgery Systems
23. Development of Smart Manufacturing Robots
24. Robotic Navigation and Path Planning
25. Human-Robot Interaction Technologies
26. Development of Service Robots for Healthcare
27. Autonomous Agricultural Robots
28. Industrial Automation with Robotics
29. Robot Vision Systems
30. Collaborative Robots (Cobots) in Industry
31. Autonomous Underwater Vehicles
32. Robot Learning from Demonstration
33. Development of Self-Repairing Robots
34. Advanced Sensor Integration in Robotics
35. Mobile Robot Localization Techniques
36. Robotic Systems for Hazardous Environments
37. AI-Powered Robotic Process Automation
38. Robotic Grasping and Manipulation

39. Development of Smart Assistive Robots
40. Robot Path Optimization Algorithms

## **Internet of Things (IoT)**

41. Smart Home Automation Systems
42. IoT for Environmental Monitoring
43. Wearable Health Monitoring Devices
44. IoT-Based Smart Agriculture Solutions
45. Smart City Infrastructure Development
46. IoT Security and Privacy Challenges
47. Development of IoT-Enabled Smart Grids
48. IoT for Fleet Management
49. Real-Time Traffic Monitoring with IoT
50. IoT in Industrial Equipment Maintenance
51. Energy-Efficient IoT Devices
52. Smart Water Management Systems
53. IoT for Disaster Management
54. IoT-Based Smart Parking Solutions
55. Development of IoT Protocols for Smart Devices
56. IoT-Enabled Personal Safety Systems
57. IoT for Smart Waste Management
58. Real-Time Data Analytics in IoT
59. IoT-Based Home Energy Management Systems
60. Development of Low-Power IoT Sensors

## **Cybersecurity**

61. Development of Intrusion Detection Systems
62. Cyber Threat Intelligence Systems
63. Blockchain for Secure Transactions
64. Encryption Algorithms for Data Protection
65. Machine Learning for Cyber Attack Detection
66. Security in Cloud Computing
67. Vulnerability Assessment and Penetration Testing
68. Privacy-Preserving Data Mining Techniques
69. Secure Communication Protocols
70. Development of Multi-Factor Authentication Systems
71. Cybersecurity in IoT Devices
72. Forensic Analysis of Cyber Attacks
73. Risk Management in Information Security
74. Security in Wireless Networks
75. Analysis of Ransomware Attacks
76. Development of Secure Software Development Lifecycle

77. Ethical Hacking Techniques
78. Data Breach Detection and Prevention
79. Cybersecurity Policy and Compliance
80. Secure Data Storage Solutions

## **Biomedical Engineering**

81. Design of Wearable Health Monitors
82. Development of Advanced Prosthetics
83. Biomedical Signal Processing Techniques
84. Medical Imaging and Diagnostics
85. Telemedicine Systems and Technologies
86. Development of Drug Delivery Systems
87. Bioinformatics for Genetic Research
88. Development of Smart Implants
89. AI in Disease Prediction and Diagnosis
90. Biomedical Sensors for Health Monitoring
91. Tissue Engineering and Regenerative Medicine
92. Development of Robotic Surgical Systems
93. Biosensors for Disease Detection
94. Data Analytics in Clinical Research
95. Advanced MRI Techniques
96. Development of Customized Orthotics
97. Medical Device Cybersecurity
98. Bioelectronic Medicine
99. Rehabilitation Robotics
100. Wearable Devices for Chronic Disease Management

## **Energy and Environmental Engineering**

101. Renewable Energy Systems Design
102. Solar Energy Optimization Techniques
103. Wind Turbine Efficiency Improvement
104. Development of Smart Grid Technologies
105. Energy Storage Solutions
106. Waste-to-Energy Technologies
107. Carbon Capture and Storage
108. Development of Green Building Technologies
109. Water Purification and Management Systems
110. Energy-Efficient Building Designs
111. Sustainable Urban Development
112. Impact of Climate Change on Energy Resources
113. Energy Management in Smart Cities
114. Development of Advanced Battery Technologies

115. Solar-Powered IoT Devices
116. Environmental Impact Assessment
117. Optimization of Hydroponic Systems
118. Waste Management and Recycling Technologies
119. Development of Low-Carbon Technologies
120. Smart Sensors for Environmental Monitoring

## **Electronics and Communication**

121. Design of Low-Power Electronic Circuits
122. Development of High-Speed Communication Systems
123. Wireless Sensor Network Design
124. Advanced PCB Design Techniques
125. Communication Protocols for IoT
126. Development of RF Amplifiers
127. Signal Processing for Communication Systems
128. Design of Optical Communication Systems
129. Development of Embedded Systems for Communication
130. Wireless Power Transfer Technologies
131. Design of Audio Processing Systems
132. High-Definition Video Transmission Systems
133. Advanced Modulation Techniques
134. Development of Quantum Communication Systems
135. Low-Latency Communication Systems
136. Design of Smart Antennas
137. Development of Software-Defined Radios
138. Communication Systems for Space Missions
139. Development of High-Frequency Circuits
140. Design of Secure Communication Systems

## **Materials Science and Engineering**

141. Development of Nanomaterials
142. Smart Materials for Structural Health Monitoring
143. Design of High-Performance Composites
144. Development of Bio-Compatible Materials
145. Advanced Coatings for Corrosion Resistance
146. Nanostructured Materials for Energy Applications
147. Development of Lightweight Materials
148. Smart Textiles for Wearable Technology
149. Synthesis of Advanced Polymers
150. Materials for High-Temperature Applications
151. Photonic Materials for Optical Devices
152. Development of Self-Healing Materials

153. Sustainable Materials and Recycling
154. Advanced Ceramics for Electronics
155. Fabrication of Microelectromechanical Systems (MEMS)
156. Development of Conductive Polymers
157. Design of Shape-Memory Alloys
158. Materials for Energy Storage Devices
159. Development of Transparent Conductive Materials
160. Smart Sensors for Material Testing

## **Mechanical Engineering**

161. Design of Autonomous Vehicles
162. Development of Advanced HVAC Systems
163. Robotics for Manufacturing Automation
164. Optimization of Mechanical Systems
165. Development of Smart Wearable Devices
166. Thermal Management Systems
167. Design of High-Efficiency Engines
168. Advanced Materials for Aerospace Applications
169. Vibration Analysis of Mechanical Systems
170. Design of Renewable Energy Systems
171. Development of Autonomous Drones
172. Computational Fluid Dynamics Simulations
173. Mechanical Systems for Space Exploration
174. Development of Green Manufacturing Processes
175. Robotics for Medical Applications
176. Advanced Prototyping Techniques
177. Energy Harvesting from Mechanical Systems
178. Design of Precision Engineering Tools
179. Development of High-Speed Transportation Systems
180. Mechanical Design for Sustainable Energy

## **Computer Science and Engineering**

181. Development of Mobile Applications
182. Cyber-Physical Systems Design
183. Data Science and Big Data Analytics
184. Cloud Computing Architectures
185. Development of Augmented Reality Applications
186. Blockchain for Secure Transactions
187. Advanced Database Management Systems
188. Development of Game Engines
189. High-Performance Computing Techniques
190. Computer Vision for Real-Time Applications

191. Secure Software Development Practices
192. Development of Collaborative Platforms
193. Human-Computer Interaction Research
194. Real-Time Operating Systems
195. Development of Virtual Reality Applications
196. Optimization Algorithms for Large Data Sets
197. Design of Scalable Web Applications
198. Advanced Algorithms for Data Processing
199. Network Design and Optimization
200. Research in Artificial General Intelligence