

# Trending Capstone Project Ideas For STEM Students

Here are the trending capstone project ideas for STEM students to try:

## Capstone Project Ideas For Stem Students Medicine

1. Developing a machine learning algorithm for early detection of diabetic retinopathy using retinal scan images.
2. Design and implement a portable, low-cost blood glucose monitoring system using near-infrared spectroscopy.
3. Creating a mobile application for tracking and managing medication adherence in elderly patients.
4. Development of a 3D-printed customisable prosthetic hand with enhanced grip sensitivity and control.
5. Implementation of an AI-powered system for detecting pneumonia in chest X-rays.
6. Design of a wearable device for continuous monitoring of vital signs in high-risk pregnancies.
7. Creation of a virtual reality platform for surgical training and procedure simulation.
8. Development of a smart pill dispenser with remote monitoring capabilities for healthcare providers.
9. Implementation of a bacterial infection detection system using pattern recognition in blood samples.
10. Design of an automated external defibrillator with improved response time and accuracy.
11. Creation of a telemedicine platform designed explicitly for rural healthcare delivery.
12. Development of a non-invasive anaemia detection device using smartphone camera technology.
13. Implementation of an innovative wound dressing that monitors healing progress and infection markers.
14. Design of an AI-powered mental health monitoring system using voice pattern analysis.
15. Creation of a portable dialysis machine with improved efficiency and reduced power consumption.
16. Development of a brain-computer interface for assisting paralysed patients with communication.
17. Implementation of an innovative hospital bed system with automated patient positioning and monitoring.
18. Design of a real-time pathogen detection system for hospital environments.
19. Creation of a mobile stroke detection and assessment tool using smartphone sensors.
20. Development of an augmented reality system for vein visualisation during blood draws.
21. Implementation of an innovative inhaler system with medication tracking and air quality monitoring.
22. Design of a portable ultrasound device with AI-powered diagnostic capabilities.
23. Creation of a remote patient monitoring system for post-operative care.

24. Development of a dental imaging system using advanced 3D scanning technology.
25. Implementation of an innovative emergency response system for cardiac events in public spaces.

## Capstone Project Ideas For Stem Students Philippines

26. Development of an early warning system for typhoons using local weather patterns and IoT sensors.
27. Creation of a smart agriculture system optimised for Philippine crops and climate conditions.
28. Design of a flood monitoring and prediction system for urban areas in Metro Manila.
29. Implementation of a renewable energy solution combining solar and wind power for remote islands.
30. Development of a water purification system using locally available materials.
31. Creation of a digital preservation system for indigenous Philippine languages and cultures.
32. Design of a disaster-resistant housing system using native materials.
33. Implementation of a smart traffic management system for congested urban areas.
34. Development of a marine ecosystem monitoring system for coral reef preservation.
35. Creation of a waste management solution for coastal communities.
36. Design of a sustainable aquaculture system for tilapia farming.
37. Implementation of a landslide detection system for mountainous regions.
38. Development of a mobile app for connecting local farmers to urban markets.
39. Creation of a public transportation optimisation system for jeepneys and buses.
40. Design of an air quality monitoring network for major cities.
41. Implementation of a healthcare delivery system for remote rural areas.
42. Development of a smart irrigation system for rice paddies.
43. Creation of a disaster response coordination platform for local government units.
44. Design of a renewable energy-powered water desalination system for coastal areas.
45. Implementation of a digital education platform optimised for low-bandwidth areas.
46. Development of a mosquito-borne disease prediction system using climate data.
47. Creation of a marine pollution monitoring system for Manila Bay.
48. Design of a sustainable bamboo processing facility for construction materials.
49. Implementation of a traditional medicine documentation and preservation system.
50. Development of a smart tourism platform highlighting cultural heritage sites.

## Capstone Project Ideas For Stem Students Engineering

51. Design of a self-balancing electric vehicle with advanced stability control.
52. Development of a smart bridge monitoring system using structural health sensors.
53. Creation of an autonomous waste sorting system using machine learning.
54. Implementation of a solar-powered desalination plant with improved efficiency.
55. Design of a robotic system for automated warehouse management.
56. Development of a smart building management system with predictive maintenance.
57. Creation of a hydroelectric power generation system for small streams.
58. Implementation of a green roof system with automated maintenance.
59. Design of a noise reduction system for urban environments.

60. Development of a smart parking system using computer vision.
61. Creation of a vertical farming system with automated climate control.
62. Implementation of a smart grid system for renewable energy integration.
63. Design of a wave energy harvesting system for coastal areas.
64. Development of a drone-based infrastructure inspection system.
65. Creation of a smart manufacturing line with predictive quality control.
66. Implementation of a geothermal heating and cooling system for buildings.
67. Design of an earthquake-resistant building using smart materials.
68. Development of a railway track monitoring system using IoT sensors.
69. Creation of a smart traffic light system with emergency vehicle priority.
70. Implementation of a water leak detection system for municipal pipelines.
71. Design of a smart construction site safety monitoring system.
72. Development of a wind turbine optimisation system using AI.
73. Creation of a building energy efficiency monitoring platform.
74. Implementation of a smart waste management system for cities.
75. Design of a sustainable concrete mixture using recycled materials.

## Capstone Project Ideas For Stem Students Technology

76. Development of a blockchain-based supply chain tracking system.
77. Creation of an AI-powered personal cybersecurity assistant.
78. Implementation of a quantum computing simulator for educational purposes.
79. Design of a natural language processing system for local languages.
80. Development of a smart home automation system with voice recognition.
81. Creation of an augmented reality platform for remote collaboration.
82. Implementation of a secure digital voting system using blockchain.
83. Design of a real-time language translation system using AI.
84. Development of a privacy-focused social media platform.
85. Creation of a cloud-based rendering system for 3D animations.
86. Implementation of a smart city data analytics platform.
87. Design of a decentralised file storage system.
88. Development of an AI-powered code review system.
89. Creation of a virtual classroom platform with enhanced interaction features.
90. Implementation of a facial recognition system with privacy protection.
91. Design of a cryptocurrency trading bot using machine learning.
92. Development of an edge computing platform for IoT devices.
93. Creation of a smart contract automation system.
94. Implementation of a deep learning system for video analysis.
95. Design of a quantum cryptography communication system.
96. Development of a federated learning platform for privacy preservation.
97. Creation of an AI-powered game development engine.
98. Implementation of a neural network visualisation tool.
99. Design of a secure messaging system with quantum encryption.
100. Development of a distributed computing platform for scientific research.

## General Stem Capstone Project Topics

101. Development of a cross-disciplinary environmental monitoring system.

102. Creation of a smart healthcare platform combining IoT and AI.
103. Implementation of a sustainable energy management system.
104. Design of a biodegradable packaging solution using natural materials.
105. Development of an AI-powered climate change prediction model.
106. Creation of a smart agriculture system with automated pest control.
107. Implementation of a water quality monitoring network.
108. Design of a renewable energy storage solution.
109. Development of a waste-to-energy conversion system.
110. Create a smart transportation system to reduce emissions.
111. Implementation of a disaster prediction and management platform.
112. Design of a sustainable urban planning solution.
113. Development of a biodiversity monitoring system using AI.
114. Creation of a circular economy management platform.
115. Implementation of a smart grid optimisation system.
116. Design of a carbon capture and storage solution.
117. Development of an ocean cleanup technology system.
118. Creation of a sustainable food production platform.
119. Implementation of a smart resource management system.
120. Design of an air pollution reduction solution.
121. Development of a renewable energy forecasting system.
122. Creation of a sustainable water management platform.
123. Implementation of a smart waste recycling system.
124. Design of a green building optimisation solution.
125. Development of an ecosystem restoration monitoring platform.