



# ARTIVERSE 2K24

## PROBLEM STATEMENTS

- 1) Deploy AR/VR for the help in the field of education to visualize the concepts of science and technology for the better understanding of students.
- 2) Design and development of surgical augmented reality setups, and surgical digital library platforms.
- 3) AI based Automatic alarm generation and dropping of payload at a particular object through a Drone.
- 4) Drone-based surveillance system for the vessels flying in port areas and encroachments.
- 5) Identification of place names from a natural language sentence.
- 6) Create an AI-powered platform for delivering interactive security awareness training modules to employees, educating them about common cyber threats, best practices for secure behavior.
- 7) Create an AI-driven spam filtering system for emails to automatically identify and move spam messages to a separate folder, reducing the risk of users clicking on malicious links or downloading harmful attachments.
- 8) Develop an AI-based tool to assess the strength of passwords used by individuals or within an organization, providing recommendations for stronger password creation to enhance overall security posture.
- 9) Create an interactive cybersecurity training game or simulation for educating users about common cyber threats, security best practices, and incident response procedures in an engaging and immersive way.
- 10) Create a system to recognize and understand local dialect by Computer or other IT devices to deliver voice.
- 11) Development of Technology for manufacturing of mind control BIONIC hand with a sense of touch.
- 12) Use generative AI to create or evolve game mechanics, characters, or your favorite game, or share an idea for a new game from scratch.
- 13) Smart Applications for Medicinal Plants Information.
- 14) IoT Based Smart Waste Management System for Smart City.

- 15) Build a chatbot using natural language processing techniques to provide customer support or answer FAQs.
- 16) Create a machine learning-based system for personalized healthcare recommendations based on genetic data and lifestyle factors.
- 17) Develop a hardware platform for real-time object detection and tracking using deep learning algorithms.
- 18) Design a brain-computer interface device that interprets neural signals for controlling external applications.
- 19) Develop AR/VR applications that are fully accessible to people with disabilities, including those with visual, auditory, mobility, and cognitive impairments.
- 20) Develop an OpenCV-based Python application for dynamically adjusting screen brightness through hand detection, optimizing user experience and accessibility.
- 21) Build a machine learning algorithm for optimizing supply chain logistics and inventory management.
- 22) Create a Convolutional Neural Network (CNN) model for accurately recognizing hand gestures in real-time, facilitating intuitive interaction with electronic devices and applications.
- 23) Develop a fast-food ordering chatbot with database integration to store orders and real-time tracking functionality for customers and businesses, addressing inefficiencies in traditional ordering methods and enhancing the overall ordering experience.
- 24) Create an emotion-based music player utilizing Recurrent Neural Networks (RNNs) to analyze user emotional cues from input text or speech, enabling personalized music recommendations tailored to the user's mood and emotional state.
- 25) Design and develop an AI-powered chatbot for the technical education department.
- 26) Develop a computer vision project for hand sign recognition, enabling real-time interpretation of sign language gestures for communication accessibility, assistive technologies, and human-computer interaction.
- 27) Build a deep learning model for automated video content moderation, detecting and filtering out inappropriate content.
- 28) Develop a robotic system with embedded AI for autonomous navigation and object manipulation.
- 29) Develop a self-learning industrial robot for flexible manufacturing tasks using reinforcement learning algorithms.
- 30) Design a deep learning model for music generation or composition based on existing songs.

**Note:**

- Other ideas based on the provided problem statements can be submitted within the given themes.
- Innovative ideas are accepted.
- Abstract should be in the given format.
- Kits/Simulation Tools Can be used.
- Teams should bring their needed kits.