

**VIGNANA BHARATHI INSTITUTE OF TECHNOLOGY**  
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**SCHOOL CODE: 45893584 STUDENT BRANCH CODE: 65451**

## Problem Statements

### NOTE:

1. *Kindly select only one of the Problem Statements mentioned below.*
2. *The links for submission of Abstract and PPTs will be provided to the students.*
3. *Plagiarism is strictly restricted.*

### **Track - 1: Computational Intelligence**

1. How can we make learning the Constitution more accessible and engaging for citizens?
2. How can we utilize geolocation technology to develop a mobile app for accurate attendance tracking?
3. How can bus scheduling and route management be made more efficient using emerging technologies?

### **Track - 2: Emerging Technologies**

1. How can we use historical energy consumption data to predict and optimize electricity usage in households and industries, enhancing energy efficiency?
2. With evolving cyber threats, how can we develop an AI-powered real-time solution to proactively safeguard against malware?
3. Firewalls often fall short against advanced cyber threats - what innovative solution can strengthen protection?
4. In what ways past stock market data be utilized to forecast future stock prices?
5. Design a system that automatically ranks and sorts resumes to help in selecting the most suitable candidates for a job.

### **Track - 3: Energy and Optimization**

1. How can we increase Wi-Fi range in buildings to ensure consistent and reliable connectivity?
2. How can we improve transformer efficiency, reduce energy losses and optimize power distribution in electrical systems?
3. What solutions can be implemented to ensure proper electrical grounding, preventing hazards like shocks and fires?

### **Track - 4: Sustainable Innovation**

1. How can we achieve the sustainable utilization of ash produced by coal-based thermal power plants?
2. In what ways may artificial intelligence and machine learning revolutionize urban traffic management to enhance safety.
3. What transportation solutions can reduce congestion, enhance efficiency and cut down carbon emissions while preserving urban infrastructure?