**Problem Statements:**

Domain: **3D Printing**

Problem 1: What interactive educational tools or games can be 3D printed to enhance classroom learning for students of different age groups?

Problem 2: What IoT sensors can be incorporated into 3D printers to monitor filament levels, temperature, and printing progress?

Problem 3: Can AR be used to create interactive user manuals or guides for assembling 3D printed objects?

Domain: **EV Challange**

Problem 1: Are there innovative ways to optimize charging and discharging algorithms for faster and safer charging?

Problem 2: Are there solutions to address the challenge of charging station availability in urban areas and remote locations?

Problem 3: How can electric vehicles be safeguarded against cyber threats, ensuring the security of both the vehicle and the user's data?

Domain: **LMS Platform**

Problem 1: How can machine learning algorithms be utilized to analyze learner behavior and preferences, creating personalized learning paths tailored to individual students?

Problem 2: What innovative features or gamification elements can be added to the LMS interface to motivate learners and make the learning process more enjoyable?

Problem 3: What innovative encryption techniques or blockchain solutions can be integrated to enhance data privacy and security within the LMS?

Domain: **Advance IoT**

Problem 1: Can machine learning algorithms be applied to predict and automate user preferences within a smart home environment?

Problem 2: How can natural language processing and gesture recognition technologies be integrated with IoT devices, enabling intuitive communication and control for users?

Problem 3:  What IoT solutions can optimize inventory management, reduce shipping costs, and minimize product losses during transportation?

Domain: **Humanoids**

Problem 1: What solutions can be developed to enhance the mobility of humanoid robots, allowing them to navigate diverse and challenging environments?

Problem 2: How can humanoid robots be integrated into public spaces, such as airports or shopping malls, to assist visitors, provide information, and enhance customer experiences?

Problem 3: How can humanoid robots be designed to respect cultural differences and avoid reinforcing biases, promoting inclusivity and diversity in their interactions?