CURIOSITY MARS ROVER AI MODEL MODIFICATION RESEARCH OUTLINE:

Introduction:

The curiosity mars rover was sent to mars so that the composition of the surface of the mars can be studied, the rover receives certain coordinates from the team at the NASA headquarters and navigates to those coordinates by using AI technology to take closeup pictures and collect samples from the said coordinates.

Problem Area:

The rover navigates on the surface of mars by taking pictures of the surface, analyze those pictures, identify obstacles / rocks and find a safe path to navigate to a particular location, but all of this takes too much time and the rover cannot continuously drive itself as it has to stop and make calculations to find a safe path.

Motivation:

On the surface of the mars, time is of the essence, and that is being wasted as the rover can only navigate a few meters at a time (2 to 4), the changes that we are proposing in the AI model that the curiosity rover uses for navigation can help us save that essential time.

Proposed Solution:

The AI model of the curiosity rover can be modified such that the rover while standing idle, and while it has no coordinates to go to or in other words no mission to collect any sample, can pre-analyze the terrain around it in all directions by doing so, when the rover receives new coordinates to go to, It would have already analyzed the terrain around it to a particular distance and that could save some time, that time can be used to analyze the road further ahead, for that it would also need to have its camera abilities enhanced so that it can see and analyze further.

Beneficiaries:

The beneficiaries would obviously be the team at NASA, but if viewed as a bigger picture, the advancements and successes in this AI technology could prove to be beneficial to the whole scientific world.