



SRM Institute of Science and Technology
Department of Mechatronics Engineering



21MHP401L, 21MHP403L –Major Project

Project Registration Form
Academic Year: 2025-2026 (Even)

Project Batch Number (To be filled by the Project Coordinators):

Major Project Code: 21MHP401L

Name of the Guide: Dr. R. Senthilnathan

Suggested theme of the project (Please tick any one box according to the area of the project)

| PROJECT DOMAINS | | | |
|--------------------|--------------------------|-------------------------|--------------------------|
| Environment | <input type="checkbox"/> | Energy | <input type="checkbox"/> |
| Healthcare | <input type="checkbox"/> | Agriculture | <input type="checkbox"/> |
| Mobility solutions | <input type="checkbox"/> | Disruptive technologies | <input type="checkbox"/> |

Tentative Project Title:

Development of a pan-tilt gimbal control system for mechanical video stabilization and vision based target tracking.

Project Members:

| S.No | Reg. No. (Starts from the lowest) | Name | Mobile no. | Email ID | Signature |
|------|---|-------------|------------|--------------------------|-----------|
| 1 | RA2211038010017 | Sharish K A | 6381791493 | sk1774@srmi st.edu.in | |
| 2 | RA22110380100 32 | Diyanez J S | 7530013814 | dj9207@srmis t.edu.in | |
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Signature of the Guide with Date

| Abstract (Maximum 250 words) (Filled by student) |
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| <p>This project aims to develop a pan-tilt gimbal system for mechanical video stabilization and target tracking. The objective is to design a control system for an existing gimbal platform that is both robust against disturbances as well as agile and stable during object tracking. The system utilizes a mechanically balanced pan-tilt mechanism to counteract external disturbances typically originating from movements from vehicle traversing undulated road surfaces on which the gimbal shall be mounted. The performance of the system will be assessed in broadly two aspects namely: Stabilization and Vision based Tracking performance.</p> |

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|---|----------------------------|--|----------|--|
| Project Status (Filled by Project panel members) | Accepted | | Rejected | |
| If rejected (Reason for rejection) (Filled by Project panel members) | | | | |
| Suggestions given by the Project panel members (Filled by Project panel members) | 1. | | | |
| | 2. | | | |
| | 3. | | | |
| | 4. | | | |
| Project panel members | Signature with date | | | |
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