Shri G. S. Institute of Technology and Science
Department of Electronics and Instrumentation Engineering
B. Tech. IV Year ---EI47999: Major Project Phase-II
RUBRICS
(Internal Assessment)

COURSE OUTCOMES: After completion of Major Project Phase-II, students will able be to:

1. Work in group as team to identify and formulate problem statement.

2. Provide the solution methodology to implement the problem statement.

3. Proposed the test methodology and obtain the desired results.

4. Perform the analysis and provide comparison with existing work and future scope.

5. Demonstrate the writing skills for technical report and presentation.

ASSESMENT: Internal assessment- will be done on the following Rubrics.   **(Max. Marks: 40)**

Sr. No.	Rubrics	Marks	CO
1	Problem formulation / Statement of Problem	05	CO1
2	Literature Review / State of Art.	10	CO2
3	Proposed Methodology with Expected outcomes	10	CO3
4	Findings, Test methodology and results	10	CO4
5	Report writing and Presentation	05	CO5

RUBRICS
(External Assessment)

ASSESMENT: External assessment- will be done on the following Rubrics.   **(Max. Marks: 60)**

Sr. No.	Rubrics	Marks	CO
1	Problem formulation / Statement of Problem	10	CO1
2	Literature Review & new feature added.	15	CO2
3	Project Outcomes	10	CO3
4	Testing, Results and Conclusions.	15	CO4
5	Report writing and Viva	10	CO5

RUBRICS: MINOR/MAJOR PROJECT (EI37991/EI47999/EI47499)

Criteria	Excellent (9–10)	Good (7–8)	Average (5–6)	Poor (0–4)	Weight (%)
1. Problem Definition & Scope	Problem statement is exceptionally clear, well-defined, and highly innovative. Objectives are relevant, challenging, and aligned with industry trends.	Problem is clearly defined with relevant objectives; minor improvements could further clarify scope or innovation.	Problem statement is recognizable but lacks depth or a clear innovative direction.	The problem is vague, poorly defined, or lacks alignment with core engineering challenges.	10
2. Research & Literature Review	Comprehensive review with extensive use of current and relevant literature. Demonstrates critical analysis and integrates state-of-the-art methods.	Good review with a solid reference base; shows some critical analysis though may miss a few key sources.	Adequate review; includes basic references but lacks critical depth and scope.	Minimal/no review of literature; misses key references and fails to contextualize the project.	10
3. Design & Methodology	Exceptionally robust and detailed design. Methodology is clearly articulated with modern techniques, simulation models, and logical planning.	Structured design, with clear methodology; minor gaps may exist in the depth or rationale of certain design steps.	Design and methodology are present but remain basic; lacks detailed planning and context for chosen methods.	Design is poorly conceived or documented; methodology is unclear and lacks a logical or systematic approach.	20
4. Implementation & Integration	Outstanding integration of hardware and software components. Implementation is meticulous, reflecting excellence in circuit design, sensor interfacing, and control systems.	Implementation is sound with only minor integration issues; demonstrates a solid grasp in system assembly.	Implementation shows the basic functionality but has noticeable gaps or integration challenges between modules.	Implementation is significantly flawed; critical modules are either missing or improperly integrated.	20
5. Testing, Validation & Analysis	Comprehensive testing strategy with quantitative validation, rigorous analysis, and effective troubleshooting. Results are well-documented and reproducible.	Good testing and analysis; objectives are met with minor inconsistencies in analysis.	Basic testing procedures are evident; validation is partly complete, and analysis lacks robustness.	Testing is minimal or absent; validation are unclear, and analysis is insufficient to prove functionality.	15
6. Documentation & Reporting	Exceptionally clear, professionally structured, and detailed project report. Documentation adheres to high academic and industry standards.	Thorough and clearly written report; minor improvements in structure or detail could enhance clarity.	Report is adequate but may lack comprehensive details, cohesiveness, or technical depth in parts.	Poor Documentation: hindering understanding of the project work and outcomes.	10
7. Presentation & Defense	Excellent oral presentation with clear articulation, confident delivery, and strong command of technical content. Answers questions with depth and clarity.	Clear explanation; demonstrates good understanding although response to questions may lack full depth.	Basic presentation; communicates main points but may be hindered by clarity, pace, or preparedness for queries.	Presentation is unclear and unstructured; inability to defend project details or answer technical questions effectively.	10
8. Innovation & Creativity	The project exhibits significant originality and a creative approach to problem-solving, incorporating novel instrumentation methods or technologies.	Demonstrates a degree of creativity with some innovative elements integrated into the project approach.	Standard application with minimal innovation; relies on existing techniques without enhancement.	Lacks any innovative approach; the project is derivative and does not show new insights / methods.	5
Total					100