

CG4001 Rubrics

1	2	3	4	5
Understanding (CA: Supervisor and Main Evaluator)				
<ul style="list-style-type: none"> • Hardly any understanding of main issues and shows little interest in the project. • Does not understand important algorithms/assumptions/circuits/codes/design concepts/equations/experimental requirements/models. 	<ul style="list-style-type: none"> • Summarizes issues though some aspects are incorrect or some key issues are neglected. • Little understanding of the important algorithms/assumptions/circuits/codes/design concepts/equations/experimental requirements/models. • Little awareness of constraints/assumptions. 	<ul style="list-style-type: none"> • Adequate but superficial understanding/summary of the key issues. Design/equations/models/experimental requirements are not well understood. • Little identification of inter-relationships between issues. • Can solve problems with guided supervision. • Some appreciation of constraints/shortcomings of current/own work. 	<ul style="list-style-type: none"> • Able to use equations/models to demonstrate/explain certain behaviours/trends. • Poses relevant questions for further inquiry. • Able to propose new changes to improve the results achieved at this stage. • Well aware of constraints/shortcomings of current/own work and ready to provide improvements. 	<ul style="list-style-type: none"> • Able to use equations/models to demonstrate/explain certain behaviours/trends. • Clearly identifies all embedded or implicit key issues and integral relationships. • Poses a depth and breadth of relevant questions for further inquiry. • Well aware of constraints/shortcomings of current/own work and ready to propose new approaches to improve the results achieved at this stage.
Execution and Overall Achievement (CA: Supervisor and Main Evaluator)				
<ul style="list-style-type: none"> • Has difficulty in validating/formulating the problem statement or shows little interest in doing so. • Only beginning to understand the tools required for the project. 	<ul style="list-style-type: none"> • Has difficulty in validating/formulating the problem but is making some effort towards exploring the problem. • Unable to make effective use of relevant tools. 	<ul style="list-style-type: none"> • Has formulated the problem and is able to validate the problem statement with limited success so far. • Has proposed some viable solutions/plans to address difficulties encountered. • Able to make good use of tools. 	<ul style="list-style-type: none"> • Has formulated problem statement with clear objectives. • Able to validate the problem statement with some success. • Preliminary results verified but in-depth analysis has yet to be realized. • Able to propose some plans to move forward to achieve the goals of the project. • Well aware of shortcomings of the current work. 	<ul style="list-style-type: none"> • Good formulation of problem statement with clear and viable objectives. • Able to validate the problem statement with good success. • Has verified or demonstrated repeatability/accuracy of results obtained. Good analysis given to support understanding. • Well aware of shortcomings of the current work. Ready to make significant changes to improve current/previous results. • Detailed and viable plan is in place to achieve the goals of the project.

Report (CA: Supervisor and Main Evaluator)

<ul style="list-style-type: none"> • Disorganized to the extent of preventing understanding. • Frequent spelling and grammatical errors. • Writing is disorganized and difficult to read and understand. • Considerable amount of material are irrelevant, misplaced or not documented. 	<ul style="list-style-type: none"> • Unclear organization; almost one spelling/grammar error per page. • Readable writing style, but difficult to follow. • Work presented is either trivial or not used in the work performed. 	<ul style="list-style-type: none"> • Report is readable, but requires some effort. • Content is somewhat organized but organization can be better. • Contains relevant materials though more material can be included. 	<ul style="list-style-type: none"> • Organization is generally good, but some parts seem out of place. • A few spelling and grammatical errors. • Writing style indicates planning that makes reading easy. • Content is sufficient and largely relevant. 	<ul style="list-style-type: none"> • Written work is well organized and easy to understand. • Spell-checked and proofread well. • Writing style indicates planning that makes reading easy and flow of material makes understanding easy. • Work presented is entirely relevant to the work performed. • Information appropriately placed in either the main text or appendices.
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Effort and Initiative: Effort (CA: Supervisor)

<ul style="list-style-type: none"> • Does not take responsibility for own work. • Unmotivated, hardly demonstrates any effort and shows little interest/diligence in the project. • Seldom attends meetings with supervisor. 	<ul style="list-style-type: none"> • Must be reminded to stay on tasks. • Demonstrates minimal effort and diligence. Makes excuses for not carrying out work. Stopped working when difficulties arose. • Meetings with supervisor are intermittent and irregular. • Comes unprepared for meetings. 	<ul style="list-style-type: none"> • Demonstrates some responsibility for setting goals/targets and planning. • Demonstrates effort when prompted. • Diligent but does not exert more effort when difficulties arose. 	<ul style="list-style-type: none"> • Accepts complete responsibility for developing goals/targets/plans with good commitment. • Demonstrates consistent effort. • Diligent and shows some independence in tackling problems encountered. • Demonstrates perseverance when difficulties arose or when a solution was not immediately obvious. 	<ul style="list-style-type: none"> • Independently develops challenging goals/targets/plans and sustains strong commitment to them. • Highly motivated and gives maximal effort. • Shows considerable diligence and independence in tackling problems encountered. • Views difficulties that arose as opportunities to strengthen understanding.
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Effort and Initiative: Initiative (CA: Supervisor)

<ul style="list-style-type: none">• Shows little interest and initiative in the project.• Demonstrates a negative attitude towards learning and further inquiry.	<ul style="list-style-type: none">• Lack resourcefulness and hardly shows initiative and self direction.• Displays considerable lack of confidence and motivation.• Generally avoids new learning situations and challenges.• Generates questions for further inquiry reluctantly and only with assistance and direct supervision.• Constantly rely on guidance to progress in the project.	<ul style="list-style-type: none">• Shows initiative and self direction in limited ways.• Approaches new learning situations and challenges with limited confidence.• Shows some interest and sometimes generates questions for further inquiry when prompted.• Shows motivation for some activities.• Some guidance needed in solving problems.	<ul style="list-style-type: none">• Generally shows initiative and self direction.• Demonstrates an attitude towards learning and approaches challenges with some confidence.• Explores and generates some questions for further inquiry.• Shows good motivation for all activities.• Independent in solving problems.	<ul style="list-style-type: none">• Shows considerable initiative and self direction. Identifies problems to solve.• Approaches new learning situations and challenges with a positive, enthusiastic and confident attitude.• Constantly explores and independently generates relevant questions for further inquiry.
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Presentation (CA: Main Evaluator)

<ul style="list-style-type: none">• Unable to explain what the project is about.	<ul style="list-style-type: none">• Unable to express ideas clearly.• Unable to provide answers to many questions asked.	<ul style="list-style-type: none">• Able to explain the problem in some detail• Able to answer questions asked, but with some difficulties	<ul style="list-style-type: none">• Able to articulate the problem and work done reasonably well• Understands the questions asked and is able to provide concise answers in most cases.	<ul style="list-style-type: none">• Presents ideas clearly and concisely.• Understands questions asked quickly and provides relevant and detail answers.
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Presentation: Organization, Clarity (FA: Main Evaluator and Moderator)				
<ul style="list-style-type: none"> • Slides are inappropriate. • Major points are missing. • Little evidence of organization and preparation. 	<ul style="list-style-type: none"> • Slides cover main points but there is clear lack of proper organization. • Some evidence of organization and preparation. 	<ul style="list-style-type: none"> • Slides cover main points but hypotheses and conclusions not fully communicated. • Some evidence of organization and preparation. 	<ul style="list-style-type: none"> • Hypotheses and conclusions clearly and accurately communicated. • Clear evidence of organization and preparation. 	<ul style="list-style-type: none"> • Hypotheses and conclusions clearly and strongly supported with accurate and appropriate details. • Clear evidence of organization and presentation.
Presentation: Ability to Communicate (FA: Main Evaluator and Moderator)				
<ul style="list-style-type: none"> • Presentation was awkward throughout. • Presentation was incomprehensible. • Unable to answer most of the questions. 	<ul style="list-style-type: none"> • Presentation was awkward at times with frequent errors in sentence structure; poor English. • Presentation was barely comprehensible • Answer some questions, but with difficulties 	<ul style="list-style-type: none"> • Presentation was comfortable in only parts of the presentation. • Some errors in sentence structure; English just comprehensible. • Made good effort to answer questions, but required some prompting. 	<ul style="list-style-type: none"> • Presentation was comfortable in most parts. • Correct sentence structure; proficiency in English demonstrated. • Answered most of the questions correctly and required minimum prompting. 	<ul style="list-style-type: none"> • Confident and relaxed throughout the presentation. • Sentence structure consistently correct; good English. • Answered questions to satisfaction and demonstrate good grasp of the project.
Technical Achievement: Problem Formulation (FA: Supervisor, Main Evaluator and Moderator)				
<ul style="list-style-type: none"> • Incomplete thesis submitted. • Fails to provide adequate context, rationale, or purpose of thesis. 	<ul style="list-style-type: none"> • Poor statement of context supporting rationale for proposed thesis. • Poor statement of research question, design decision, hypothesis, significance, and limitations. 	<ul style="list-style-type: none"> • Adequate statement of context supporting rationale for proposed thesis. • Adequate statement of research questions, design decision, hypothesis, significance, and limitations. 	<ul style="list-style-type: none"> • Provides clear context supporting rationale for proposed thesis. • Clear statement of research questions, design decision, hypothesis, significance, and limitations. 	<ul style="list-style-type: none"> • Provides clear context supporting rationale for proposed thesis and strong motivation for work. • Research questions, design decision, hypothesis, significance, and limitations clearly explain and well motivated.

Technical Achievement: Methodology, Implementation, Analysis and Validation (FA: Supervisor, Main Evaluator and Moderator)				
<ul style="list-style-type: none"> • No appropriate research or investigative method/ design. • No clear specification of the problem and inadequate or trivial implementation. • Inadequate use of problem solving skills. • No analysis of the result. 	<ul style="list-style-type: none"> • Problem not fully researched or investigated; appropriateness of research/ design or investigative method is questionable. • Limited implementation of initial specification. • Limited use of problem skills. • Assumptions are stated but none are justified; limited analysis of the results. 	<ul style="list-style-type: none"> • The research/ design method is somewhat adequate. • Partial in-depth specification and implementation. • Some steps used in solving the problem are not supported by calculations or reasoning. • Assumptions are stated but some are not justified. 	<ul style="list-style-type: none"> • The research/ design method is adequate. • Sufficient in-depth specification and implementation. • Most steps used in solving the problem are supported by calculations or reasoning. • Most assumptions are stated and justified. 	<ul style="list-style-type: none"> • Disciplined, well thought out investigation/design method; justification for research/design method used. • Fully developed specification and supporting implementation. • Problem solving skills is evident. • Results are analysed and well interpreted.
Technical Achievement: Extension of Knowledge/Overall Outcome (FA: Supervisor, Main Evaluator and Moderator)				
<ul style="list-style-type: none"> • Basic concepts not applied correctly. • No evidence of independent learning. 	<ul style="list-style-type: none"> • Some basic concepts used; no new idea introduced. • Some Innovative work initiated, but of minimal importance. • Minimum demonstration of independent learning. 	<ul style="list-style-type: none"> • Basic concepts used. • Some new concepts introduced but not well developed. • Some Innovative work initiated. • Some demonstration of independent work. 	<ul style="list-style-type: none"> • Basic concepts used and some new concepts applied. • Innovative work initiated but needs more work. • Demonstrate sufficient ability to perform independent work. 	<ul style="list-style-type: none"> • Basic and new concepts frequently used. • Promising innovative work initiated. • Demonstrate strong capability to perform independent work.
Project Management and Planning (FA: Supervisor)				
<ul style="list-style-type: none"> • Shows little interest and no planning for the project. • Project timeline and milestones are non-existence. • Risk identification and assessment are non-existent. 	<ul style="list-style-type: none"> • Attempt to set some simple targets but no/minimum follow-up. • Simplistic and/or non-realistic risk identification and assessment. 	<ul style="list-style-type: none"> • Able to provide some plans for implementation. • Has provided some project timeline and milestones. However, insufficient monitoring or follow up subsequently. • Some attempt in risk assessment with some risk drivers identified, but no real effort to prioritize or manage the identified risk factors. 	<ul style="list-style-type: none"> • Has provided complete and comprehensive project timeline based on milestones and analysis, but lacked regular monitoring and updating of progress. • Able to propose some plans to move forward to achieve the goals of the project. • Has carried out the risk assessment and management process reasonably well and documented the findings. 	<ul style="list-style-type: none"> • Provides complete and comprehensive project timeline based on milestones and analysis, with regular monitoring and updating of progress. • Processes/steps in the plan are well articulated and are relevant to the identified goals, with viable timelines and milestones indicated. • Correctly analyses and determines the risks to be managed with complete and comprehensive management

				and contingency plan.
Report: Organization (FA: Supervisor and Main Evaluator)				
<ul style="list-style-type: none"> • Incomplete thesis submitted. • Considerable amount of material are irrelevant, misplaced or not documented. • Disorganized to the extent of preventing understanding. 	<ul style="list-style-type: none"> • Poor organization of thesis; chapters not clearly linked. • Sources not cited and referenced in text. • All figures/tables not referenced in text; axes not labelled. 	<ul style="list-style-type: none"> • Some organization of thesis is evident but chapters are not well linked. • Most sources are cited and referenced in text. • Figures/tables relevant but not all are referenced in text. • Not all figures are clearly annotated. 	<ul style="list-style-type: none"> • Chapters are well linked but thesis can be more concise. • Sources are cited and referenced in text. • Provides good figures/tables, all referenced in text. 	<ul style="list-style-type: none"> • Chapters are appropriate and well linked. • Good use of tables and figures. • Information appropriately placed in either the main text or appendices.
Report: Writing Style, Clarity (FA: Supervisor and Main Evaluator)				
<ul style="list-style-type: none"> • Frequent spelling and grammatical errors. • Writing is disorganized and difficult to read and understand. • Poor use of proper grammar and spelling. 	<ul style="list-style-type: none"> • Writing does not flow well, is neither clear nor concise. • Readable writing style, but difficult to follow. • Work presented is either trivial or not used in the work performed. 	<ul style="list-style-type: none"> • Report is readable, but requires some effort. • Grammar and sentence structure adequate. • Contains relevant materials though more material can be included. 	<ul style="list-style-type: none"> • Uses proper grammar and sentence structure. • A few spelling and grammatical errors. • Writing style indicates planning that makes reading easy. • Content is sufficient and largely relevant. 	<ul style="list-style-type: none"> • Spell-checked and proofread well. • Writing style indicates planning that makes reading easy and flow of material. • Exemplary writing that flows well, clear, concise, and comprehensive. • Work presented is entirely relevant to the work performed.

	Supervisor	Main Evaluator	Moderator
	Continual Assessment (CA)		
	20%	10%	0%
Effort	15%		
Initiative	15%		
Understanding	30%	30%	
Execution and Overall Achievement	20%	30%	
Report	20%	20%	
Presentation		20%	
	Final Assessment (FA)		
	20%	30%	20%
Presentation: Organization, Clarity		10%	20%
Presentation: Ability to Communicate		10%	20%
Technical Achievement: Problem Formulation	10%	10%	10%
Technical Achievement: Methodology, Implementation, Analysis and Validation	20%	25%	25%
Technical Achievement: Extension of Knowledge/Overall Outcome	20%	25%	25%
Project Management and Planning	10%		
Report: Organization	20%	10%	
Report: Writing Style, Clarity	20%	10%	