FINAL PROJECT - RUBRIC
SOEN 422

	Points (p)	Exemplary (3.5 to 4)	Proficient (2.1 to 3.4)	Marginal (1.1 to 2.0)	Unacceptable (0.1 to 1)
Project Proposal	**Problem definition**	The student identifies the key elements of the problem. Demonstrates the ability to construct a clear and insightful problem statement with evidence of all relevant contextual factors.	The student demonstrates the ability to construct a problem statement with evidence of most relevant contextual factors, and problem statement is adequately detailed.	Begins to demonstrate the ability to construct a problem statement with evidence of most relevant contextual factors, but problem statement is superficial.	Demonstrates a limited ability in identifying a problem statement or related contextual factors, or No problem statement
	Proposed Solution	The proposed solution demonstrates knowledge of the course content by integrating major and minor concepts into the project. The student clearly outlines the objectives in an effective manner. The proposed solution also demonstrates evidence of extensive research effort and a depth of thinking about the problem at hand.	The proposed solution demonstrates knowledge of the course content by integrating major concepts into the project. The student outlines the objectives in an effective manner. The proposed solution demonstrates evidence of limited research effort and/or initial thinking about the problem at hand.	The proposed solution demonstrates limited knowledge of the course content by integrating a few concepts into the project. The student does not provide clear objectives. The proposed solution demonstrates evidence of oversimplification of the problem at hand.	The proposed solution does not demonstrate knowledge of the course content, evidence of the research effort or depth of thinking about the problem at hand, or No proposed solution
	Initial Design	The student clearly identifies and labels all the functional components or blocks involved in the system. The interconnections between the blocks is clearly depicted. The diagram indicates the input signals or data that enters the system and the output signals or results that are produced by the system. The diagram is consistent and clear.	The student identifies and labels most of the functional components or blocks involved in the system. Most of the interconnections between blocks are depicted. The diagram indicates most of the input signals or data that enters the system and the output signals or results that are produced by the system. The diagram is consistent and clear.	The student identifies and labels some of the functional components or blocks involved in the system. Some of the interconnections between blocks are depicted. The diagram indicates some of the input signals or data that enters the system and the output signals or results that are produced by the system. The diagram may present inconsistencies or lack of clarity.	The diagram lacks several critical components (e.g., blocks, labels, inputs, interconnections). There is a very limited representation of the proposed solution in the diagram, or Functional block diagram is non-existent.
Check-in	**Progress**	The student provides written description of the progress, with detailed explanations of completed and pending tasks. The progress roughly corresponds to 1/3 of the project. The student shows the implementation during lab session	The student provides written description of the progress, and identifies most of the completed and pending tasks. The progress roughly corresponds to 1/3 of the project. The student shows the implementation during lab session	The student provides written description of the progress, but it does not fully correspond to the implementation showed during lab session, or The student provides a limited list of completed and pending tasks so it is difficult to assess the progress, or The student shows a partial implementation during lab session with no written report	The student does not report progress in the implementation of the project
	Consistency	The progress description and implementation are fully consistent with the problem, solution, and design proposed previously. In case of changes, the student provides a written justification and explains the changes during demonstration	The progress description and implementation is mostly consistent with the problem, solution, and design proposed previously. Most changes are justified in the report and explained during lab session	The progress description and current implementation have little consistency with the problem, solution, and design proposed previously. The description of changes and its justification is limited or non-existent.	Consistency cannot be assessed due to the lack of progress in implementation
Demonstration	**Presentation**	Student shows a sophisticated understanding of the technical aspects of the project. Assessment of the designed solution contains deep and thorough reflections on the technical and non-technical considerations. The presentation and video files are complete and organized.	Student shows understanding of major technical aspects of the project. Assessment of the designed solution is adequate and discusses most of the technical and non-technical considerations. The presentation and video files are complete and organized.	Student shows a somewhat limited understanding of the technical aspects of the project. Assessment of the designed solution and the reflections over technical and non-technical considerations are brief or lack depth. The presentation and/or video file may be incomplete or disorganized.	Student does not show an understanding of the technical aspects of the project or has quite a few misinterpretations. Assessment of the designed solution and the reflections over technical and non-technical considerations are superficial or non-existent. The presentation and/or video file may be incomplete or disorganized.
	Difficulty & Creativity	The project involves solving challenges that, besides requiring a deep understanding and application of the course concepts and a proper use of the tools, also shows the student went beyond the course contents, or employed sofisticated solution strategies, or showed an exceptionally clever and unique solution.	The project involves solving challenges that required a deep understanding and application of the course concepts and a proper use of the tools. The solution is thoughtfully developed and clever at times.	The project involves solving challenges that required a high-level or limited understanding and application of the course concepts and use of the tools. A few original touches enhance the project	The project involves solving trivial challenges or presents well-known solutions. The solution shows little creativity, originality, and/or effort.
	Technical elements	Project goes over and above all the technical characteristics stated in the project guidelines.	Project includes most of the technical characteristics as stated in the guidelines.	Project was intended to include most or all the technical characteristics stated in the guidelines. However, only some of them were implemented.	Project includes a very limited subset of the technical characteristics stated in the guidelines
	Quality of the Implementation	The hardware components are well-selected. The IoT technologies are appropriate for the solution. Student implements the solution in a manner that addresses thoroughly and deeply multiple contextual factors of the problem.	Most of the hardware components are well-selected. IoT technologies are appropriate for the solution. Student implements the solution in a manner that addresses multiple contextual factors of the problem in a sufficient manner.	Some hardware components y/o IoT technologies are not a good fit for the proposed solution. Implements the solution in a manner that addresses the problem statement but ignores relevant contextual factors	Several hardware components y/o IoT technologies are not a good fit for the proposed solution. Implements the solution in a manner that does not directly address the problem statement.
	Neatness	Exceptionally attractive and particularly neat in design and layout	Attractive and neat in design and layout	Acceptably attractive but may be messy at times and/or show lack of organization	Distractingly messy or very poorly designed
	Effectiveness and Completion	Demo is engagingly organized and presents all the functionality in the allocated time	Demo is somewhat organized, complete and presents most of the functionality in the allocated time	Demo is disorganized and incomplete at times and it only shows a limited functionality	Demo is incomplete or not showing any functionality

FINAL PROJECT - MARKING
SOEN 422

	Criteria	Points (p)	Weight (w)	Score (p*w)	Max score
	Criteria	**Points (p)**	**Weight (w)**	**Score (p*w)**	**Max score**
Project Proposal	Problem definition		5		20
	Proposed solution		5		20
	Initial design		5		20
Check-in	Progress		5		20
	Consistency		5		20
Demonstration	Presentation		10		40
	Difficulty and Creativity		15		60
	Technical elements		15		60
	Quality of the implementation		10		40
	Neatness		10		40
	Effectiveness and Completion		15		60
		Total Rubric		0	400
		Scaled Mark (out of 100)		0	100
Successfull integration to other project(s)		**Team Work**		0	10
		Total Mark		0	110