Project Title :

Group Members :

Advisor :

Course Code :  END4901  END4902

Engineering Design Field :  Product/Service  Process

Design project topic and scope: (Identification of the system and its components where the design project will be carried out, explaining where to focus within the scope of the project)

Aim of the project: (*What is desired to be achieved with the design that will be developed/suggested for the system in consideration?*)

Stakeholders who will use the design: (*Introduction of the individuals or groups that will be affected positively or negatively by the solution to be suggested by the design project and explaining how they can affect the solution or be affected by it.*)

The needs that will be met by the design and the requirements of the design: (*Explanation of which business and stakeholder needs will be met by the proposed solution as a result of the design project and defining the basic features expected in the developed design in accordance with the needs*)

Constraints that guide the design: (*What constraints does the design operate under? For example, accessibility, aesthetics, codes, constructability, cost, ergonomics, extensibility, functionality, interoperability, legal considerations, sustainability, manufacturability, marketability, policy, regulations, schedule, standards, sustainability or usability.*)

Professional Standards and Legal Regulations directly related to the design: *(Which professional standards or principles are applied in the design project and/or which legal regulations should be considered? For example, ISO standards, project management or business analysis book of knowledge, lean manufacturing principles, personal data protection law, regulation on electric vehicle charging services, etc.).*

Industrial engineering techniques used in the design accompanied with the reasons and justifications of their use: (*Explaining which industrial engineering techniques to be used at different stages of the design project and explaining why they were preferred based on evidence from the related literature.*)

Generation and evaluation of solution alternatives in the design: (*Explaining what alternative solutions will be, how they will be produced, and how they will be evaluated according to the requirements, risks and ethical principles. The solution alternatives might be using alternative methods or offering alternative industrial engineering designs.*)

Possible economic, social and environmental gains that the solution generated in the design can provide: (*Can be evaluated in accordance with the Sustainable Development Goals.*)

Please select to which of the following fields, determined by the Institute of Industrial and Systems Engineering, your design project is related (see *IISE Body of Knowledge*: [*https://www.iise.org/details.aspx?id=43631*](https://www.iise.org/details.aspx?id=43631))

Work Design and Measurement

Operations Research and Analysis

Engineering Economic Analysis

Facilities Engineering and Energy Management

Quality and Reliability Engineering

Ergonomics and Human Factors

Operations Engineering and Management

Supply Chain Management

Engineering Management

Safety

Information Engineering

Design and Manufacturing Engineering

Product Design and Development

System Design and Engineering

Please indicate to which of the following ***END-coded*** courses available in your curriculum your design project is DIRECTLY related:

Introduction to Industrial Engineering and Ethics

Introduction to Manufacturing Systems

Data Management in Industrial Systems

System Thinking and Analysis

Theory of Probability

Ergonomics

Statistics

Operations Research I

Industrial Engineering Applications in Python

Work Analysis and Design

Production Planning and Control

Operations Research II

Data Analytics for Business

Engineering Economics

System Simulation

Quality Engineering

Integrated Manufacturing Systems

Management and Organization

Human Resource Management

Other (Please specify the selected elective courses):