**SUSTAINABLE DEVELOPMENT AND ENVIRONMENTAL STEWARDSHIP**

**ENGR 202 - Summer 2021**

**Assignment No 2**

**Instructor : Dr. John Hadjinicolaou**

**Assignment due June 19, 2021**

**Objective**

**The objective of the assignment is exposing the students to new sustainable technologies ( products , processes , software, etc.) and the Life Cycle Analysis of Such technologies. The students will learn how to perform the LCA in their own domain of engineering. This analysis is done in groups (5-10 students) ; therefore students will also be exposed to a collaborative teamwork and leadership issues.**

**Grading**

**60% for quality and completeness of report, 20% for originality and 20% for your individual contribution according to your statements attached to the report and sign by all the team members.**

**Preparation of the report : Includes :**

**a. First page containing: names of team members, students’ Ids, course number and section, date**

**b. Abstract (1 page) (5%)**

**c. Table of contents that includes the names of authors of particular sections**

**( work on LCA should be divided among particular group members)**

**d. Detailed description of the technology (10%)**

**e. Description of the Life Cycle Analysis of your technology, which includes all LCA steps (see lectures, textbook and other publications) (30%)**

**i.e. Use of renewable resources, Use of non-renewable resources, Use of energy, Production of wastes, Emissions of gases ,heat and GHGs.**

**f. Specifications regarding environmental benefits of the provided technology in comparison to a commonly ( presently) used technology if it exists. (10%)**

**g. References (5%)**

**Expectations**

**1. Produce a professional report on a LCA of a sustainable technology**

**( No limit of pages, 1.5 spacing )**

**2. References should be included in the text and reported in the references. An exact text taken from a publication should be provided in quotations “...”.**