**Re-energize Workshop**

**Texas State University**

**May 16-20**

**Injecting Training Materials Into The Classroom**

Instructions: Using the suggested teaching activities presented at the end of each lecture, identify two activities that most interest you. Fill up the form below to show a plan that integrates these activities into your classroom. Submit the forms at the end of this session.

**Name: Benjamin Uresti**

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**Institution: San Antonio College (SAC)**

**Title of the Course: Engineering Graphics (advanced course or 2nd semester) or Intro to Engineering class.**

**Expected Number of Students: 8-16**

**Expected Number of Minority Students: 8**

**Description of Course Activity (i.e. Homework, Example, Quiz, Project, etc.):**

The activity would require the students to create a 2D schematic of solar panels being connected in series and parallel. 2D AutoCAD blocks would be proved of the panels and the students would be given an information sheet with description of series and parallel connections. There would also be information to perform the calculations needed to evaluate the schematic. This project would prepare students for a possible project regarding the use of solar panels.

There could also be a requirement to have student create different types of schematics requiring either serial or parallel connections, this can be used to prevent them from copying from each other.

This can also be a team project to help teach the students to work with others since this is a common practice in industry.

**Objectives of Activity:**

To teach students learning computer aided design (CAD) to create schematics in a 2D drafting environment and to apply principles for series and parallel connections. The project would teach organization, preparation, and apply principles learned in not just engineering graphics but also physics. Some info can be given on sustainability and how to take advantage of green practices in the engineering field.

**Student Deliverables:**

Students will provide a drawing showing the required schematic and calculations to support the schematic. An oral presentation can be made with each member discussing the cost and benefits of the design.

**Implementation Plan:**

Working with the professor to include the project plan in their curriculum and resources where students can get information regarding solar panels.