**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:** Weining Feng

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**Institution:** UHD

**Title of the Course:** Electric Power Systems (EET3334)

**Expected Number of Students:** 30

**Expected Number of Minority Students:** 15

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

**Course project:** Implementation and evaluation of a charge controller

**Objectives of Activity:**

1. Understand the basic functions, operation specifications, and application constrains of charge controllers.
2. Be able to implement a selected controller design utilizing electronic components and devices.
3. Evaluate the performance of the charge controller.

**Student Deliverables:**

1. A comprehensive project report incorporating a comparative study of existing charge controller design, controller analysis/simulation, testing data, and performance evaluation.
2. A prototype charge controller.

**Implementation Plan:**

The project is to be implemented during the semester when EET3334 (Electric Power Systems) course being scheduled.

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| Phase I(3 weeks) | The project will be introduced at the second week of the semester. Students will have three week to conduct a survey of existing designs of charge controllers and provide a survey report |
| Phase II(3 weeks) | Select a charge controller design and conducting detailed analysis, incorporating simulation study.  |
| Phase III(4 weeks) | Acquire parts and build the charge controller. Evaluating the performance. |
| Phase IV(2 Weeks) | Report writing and project presentation. |