Senior Design Project Summary Sheet
for Publicity and Marketing

By Sept. 30, 2014, each CECS Senior Design team is required to submit the following completed form, either electronically or hard copy, to:

Kimberly Lewis, Director of Marketing
UCF College of Engineering & Computer Science
Harris Engineering Center, Room 115B
Kimberly.Lewis2@ucf.edu

The information collected is required for inclusion in the printed materials related to Senior Design Day 2015.

In addition, some projects may be identified has having potential value for marketing or the news media (UCF media as well as external media). Your team may be contacted by the CECS Marketing director to learn more about your project and possibly follow your team's progress in the months leading up to Senior Design Day.

PROJECT NAME (please spell out acronyms or define them in the summary section below):

UniverSOL Charge Station

SUMMARY (In non-scientific terms, describe the problem that your project aims to solve, and then describe your project, answering all that apply: What does the project do? Who needs it/who would use it? How does it work? What are the dimensions (if applicable)? Why is it different/ better than what's available or has been done before? What are the possible applications? Are there other "selling" points? (Ex: it provides a low-cost way to do something; it makes something easier to do; it makes something last longer; it's never been done before, it conserves energy/water and/or reduces pollution, etc.)

The project is a smart, solar powered cell phone charging station. The station will be placed in high consumer traffic areas, such as amusement parks and shopping centers, where there is both a desire and necessity to charge cell phones throughout the day. The station will be equipped with individual locking compartments and a touch screen display. The touch screen feature allows for easy consumer use and an advertisement vehicle for businesses. In addition, the locking compartments provide a secure environment for users to leave their phone and continue with activities while their phone charges. The significant feature of the project is the solar panel used as the major energy efficient power source for the charge station.

In our research and investigation, we have discovered that the available products on the market follow one of two design criteria. The stations are smart, secure, and environmentally unfriendly. Otherwise, the stations are energy efficient, but inconvenient because the phone must be placed in an unsecured location forcing the user to remain next to their phone. UniverSOL charge station aims to satisfy all of the criteria offered presently in the market place, integrating the best aspects between the two archetypal station design models. The key benefits of the design include:

Renewable Energy: Solar power as the main source of energy for this system will eliminate carbon emissions. The power source will never be exhausted, and is self-generating from the environment. It is

cost effective and utilizes renewable energy efficiently. Moreover, it serves as a greener energy alternative to using fossil fuels or other alternatives that emit carbon emissions.

Sustainability: The system is not only designed to use sustainable energy that will always be available, it is also designed to be able to change the charging cables easily when new devices that require new cables hit the market.

Economical: This system will run on an environmentally friendly energy source and will not require any power from outer sources which eliminates the cost of electricity. This system will also generate money from advertisements being placed on it. Therefore, it not only pays for itself, but it will be profitable.

Simplicity: The system is simple and easy to use for the client. A touch-screen eliminates any confusion for the user as they can press buttons on a user friendly interface. Green and red lights activate to make it easy to see if the user's phone has completed charging.

Availability: The main goal of this system is that it can be used by a majority of people that will be in the area of the machine. The system can be placed anywhere there is high volume foot traffic and we expect it to be in many theme parks, malls, and shopping centers.

Convenience: Since the design contains all of the major charging plugs for all of the top phones on the market, it makes it easy and convenient for anyone with a smartphone, no matter what type, to use the system.

Societal Assistance: In the event of a power outage or natural disaster, these stations can offer relief to individuals. Consumers can remain connected to loved ones or work when a source of power may not be easily available.

Overall, UniverSOL charge station contributes several advantages to the commercial and public sectors. Businesses can provide a profitable, convenient, cost-effective fringe benefit to attract consumers. Consumers gain an easily operated, secure, and environmentally friendly way to charge phones.

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SPONSORS (if any):

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