September 14, 2015



**INTERNATIONAL TECHNOLOGICAL UNIVERSITY**

**SWE-690 CAPSTONE PROJECT- FALL-2015**

**PROBLEM STATEMENT DOCUMENT**

**EMPOWER STUDENTS SKILLS BY SERVICES**

**(ES3)**

**Guided By:**

Professor: Hann So

**Submitted By:**

Desam Syama Sundara Reddy (#86287)

Vijay Krishna Vemuri (#87799)

Dabeeth Nagam (#87873)

Naga Sankara Manoj Hota (#87750)

Table of Contents

Problem Statements ---------------------------------------------------------------------------- 2-5

**Problem Statements**

The Capstone Project named Empower Students Skills by Services (ES3) is a Software Application, which can provide solutions for the following problems: -

**Problem 1**

Students who are enrolled in the university posses with lot of skills and even learn more in the university. In this competitive world every industry looks for students who have both subject knowledge and presentation skills. Even though a good percentage of students pass out from universities with good knowledge and skills, not all of them tend to be best suitable fresh out of college to work in a professional environment. This is mainly because fresh graduates do not possess the communication skills to express themselves correctly.

**Scenario Problem Occurs**

Students face difficulty in properly expressing their knowledge when attending interviews and later at work places.

**Problem 2**

There are a lot of people who lack of resources but want to learn advanced technical and communication skills. Even though there are a lot of online free technical courses they cannot substitute the knowledge gained in the University offered courses. Also a lot of the free courses are online and lack the advantages one can have in classrooms, which includes one to one communication, undivided attention and collaboration with other students.

**Scenario Problem Occurs**

When someone wants to learn something new but do not want to learn online. When someone wants to learn something at a basic level and do not want to invest in expensive courses.

**Problem 3**

There is hundreds of University in this country and especially near Silicon Valley and any university needs to spend thousands of dollars for marketing to attract students.

**Scenario Problem Occurs**

Marketing

**Solutions for Problems 1-3**

The application Empower Student Skills by Services, will provide a Software System platform to enroll and express the intension of delivering his/her skills by lectures. University will co-ordinate and arrange classes to interested skilled students.

Students studying at universities tend to have fresh knowledge and can always take help of their professors to clarify doubts. Though we don’t expect the students to teach advanced courses we expect they will be able to teach the basics to interested attendees. In fact we expect this to be a collaborative learning experience for both university students and attendees. By interacting with outside attendees (who may be professionals in other fields also), university students can make better their communication skills and learn to express their knowledge in a better way. Attendees can learn the basics in the subject they are interested in. At the same time, these courses can also act like a prologue to the courses offered in the universities by professors. Attendees may tend to take up a university level course if they like the basic course taught by the students. This way even the university is beneficial and makes it feasible and profitable to host these free events.

**Problem 4**

A library is a place where students have the option to choose from several books, borrow them and improve their knowledge at free of cost. This makes learning very affordable with just spending your time and not money. Students also have a chance to come across likeminded people. Even though ITU has a well performing library, it is limited in the number of books available.

**Scenario Problem Occurs**

Whenever to cater with high variety of books

**Solution**

It would be great if we could expand our library to cater the needs of the higher number of students enrolling every semester.

The ES3 application helps people to undergo advanced technical and communication skills training in a cost free model. Even though the courses are free, we encourage learners to help us by donating to ITU library. With these extra funds we could have a better collection of books and increase the number of copies available. This would in turn motivate the students to visit the library more often.

**Problem 5**

ITU Presents is a great initiative by the management of ITU which helps the students to interact with successful people in diverse areas and learn from their experience. ITU presents currently uses *‘Event Brite’*, a third party tool to organize the event. Even though the tool is user friendly and suffices the need, it doesn’t have the flexibility to incorporate any custom features like sending an email acknowledgement on the attendance captured during the session.

**Scenario Problem Occurs**

It needs features that avoid any manual intervention on maintaining the application.

**Solution**

The ES3 application framework has the capability to support ITU Presents by extending the features offered. This would also make ITU the owner of the application and allows for any changes, enhancements done in house. This should save considerable funds for ITU instead of spending it on maintenance near a third party vendor. The in house maintenance could be a facilitator of internships for the students in the future accounting for their credits and improving their practical knowledge on the courses being pursued.