COS 301 Project Proposal

SSCI-APP

version 1.0

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1 Project Name

The project will be referred to as IEEE-SSCI App.

2 Vision and objectives

The motivation to build this mobile app is to both minimise the amount of paper and money spent in printing conference programs and proceedings. Also, we envision an app that facilitates networking among conference participants and easily allows sharing of information as well as participants experience. The vision and objectives are as described below.

2.1 Vision

Our vision is to create a mobile app that enhances greater conference participation, increases participants' experience and promotes green computing.

2.2 Objectives

The objectives of the created mobile app are:

[a] To reduce the amount of paper work that conference participants have to handle/carry around during a conference.

[b] To increase conference participants experience by enabling them to create personalised schedules.

[c] To create a tool that allows participants to easily locate research outputs and venues in a conference setting.

[d] To promote a spirit of interaction and collaboration between conference participants by allowing messaging and chat functionalities in a conference mobile app.

3 Scope

The scope of this project is to create a mobile app that captures one of the most important items of a scientific conference: The conference program. The mobile app will capture this by firstly having a database where the conference materials can be retrieved from. This includes the conference schedule (timetable), presenters abstracts, keynote-speakers abstracts and advertised (future) conferences.

Having the available information already in place. The mobile app will aim to enable the participants to create their own schedules for the presentations that they would like to attend. The personalised scheduler will therefore help the participants to optimise the number of talks they can be able to attend.
over the course of the conference. This is not a trivial exercise as the major problems encountered by conference attendees are (a) maximising the number of conference talks attended over a very short period of time and (b) moving between different presentation rooms.

The other important functionality is to allow the users to be able not only to personalise their schedule but to be able to also use keywords to search for documents. This will include searching for abstracts and conference papers as well as presentation times and presentation venue for a specific author. They can then email to themselves the papers they would like to read. This functionality would facilitate a green conference where organisers do not need to either have conference proceedings in either print or USB media.

We also envision an app that would promote more collaboration and networking. Thus the scope of the work will cover a chat/messaging functionality. This would allow participants to directly send questions to presenters and therefore encourage discussion before, during and after the conference. A push notification capability should also be added to facilitate automatic news feeds from organisers to participants.

4 Architectural requirements

4.1 Functionalities

The IEEE-SSCI 2015 Mobile app will contain the following key features

4.1.1 Conference program look-up

This feature allows participants to view the conference schedule and then use the personalised scheduler to create their own schedules. The conference schedule look-up will show the time a session is starting and point out the abstract of the presentation as well as details of the presenters. This will make it easier for the participants to follow the presentations.

It is important to note that the IEEE-SSCI conference consists of a series of symposium/conference (please see www.ieee-ssci.org.za). Each of these symposia have their own programs consisting of ordinary session and special sessions. As such, the mobile app should be able to capture all the information regarding these symposia.

4.1.2 Venue guide

A large venue is always confusing to conference attendees who would be otherwise busy trying to attend as many events as possible. The problem becomes very pronounced where there are many workshops/symposia co-located. As such, the venue guide will contain maps/floor-plans of the venue and should be interactive enough to guide the attendee to the exact/near-exact room they would like to go to.
4.1.3 **Personalised scheduler**

A huge problem in a co-located conference is maximising the number of presentations to attend over a short period of time. The personalised timetable will allow attendees to plan and schedule what talks to attend.

4.1.4 **Push notifications**

This will be used to send notifications and/or messages directly to conference attendees regarding any changes during the conference. The feature shall also be used to alert the conference participants when a session or a keynote speech or conference dinner is starting.

4.1.5 **Abstract, Poster and Presentation Search Features**

This feature will allow a participant to search and view an abstract/poster or a presentation. Majority of scientists going to a conference are always looking to familiarise themselves with a piece of research before attending the talks. This feature would thus allow researchers to be able to search and view abstracts/posters. In addition to this, participants can email themselves papers that they would like read. This will therefore remove any need to have proceedings in a USB or book format.

4.1.6 **Note taking functionality**

This function would allow participants to take notes directly onto their tablets/phones. This would enable a truly "green" conference and extend the experience for the participants.

4.1.7 **Chat**

A chat functionality or messaging will allow attendees to ask speakers/presenters questions before/during and even after the conference. This will aid with not only networking but also future collaborations.

4.1.8 **Tutorial and posters**

The tutorial and posters feature will allow conference participants/attendees to see what tutorials and posters are available and they can then choose which of these tutorials/posters to visit. Also the tutorial and poster presenters can upload materials to attract more conference participants.

4.1.9 **Rating and feedback forms**

This feature shall contain forms that attendees can fill in to rate and/or give feedback to the conference organisers. The feature can also be used to rate each
session or symposium. This would then allow symposium organisers to plan future symposia with the feedback in mind.

4.1.10 Social Media Integration

The should allow participants to link their profile with their Facebook, Twitter and LinkedIn profiles – this can allow participants to promote the event and the IEEE-SSCI through their social networking sites.

4.2 Integration and access requirements

The SSCI-APP should be integrated with the conference registration system. Since participants have to pay to attend the conference, the conference proceedings are only accessible to paid participants. As such, when a user registers for the conference, through the conference registration system, she/he will the be given a special link to download the mobile app. The conference participants should be informed that conference proceedings and the program will only be available via the mobile app.

During the actual conference, once an attendee arrives, his information will then be updated online (i.e. to show that she/he has check in to the venue). The collected information can be used to gauge attendance and the app outputs (reports on the back-end) can be used for future planning.

4.3 Technology preferences

The SSCI-APP will be available both in iOS and Android. These are the most commonly used mobile handsets operating systems in the market.

5 Skills requirements

We do not have a specific development language in mind, so the skills required is for the developers to be proficient with the tools they choose to use. The developers however would be required to prior programming skills and interest in developing native android and iOS mobile apps.

6 Project deliverables

A working mobile app able to handle about 600 users at a single time.

7 Commitment

The IEEE-SSCI 2015 organising committee will be available to provide any material help necessary to make the project successful.
Dr Jonathan Mwaura will avail 1 hour each week where he can meet with developers for any questions.

8 Conclusion

This proposal details the specification for a mobile app for the IEEE SSCI-2015 conference. The conference will be held in Cape Town South Africa between 7th-10th Dec 2015. The conference organisers would like to organise a conference which reduces the amount of printing paper used by having a conference program hosted on a mobile app. The mobile app would also enable conference participants to create their own personalised schedules, be able to search through the conference proceedings/abstracts and communicate with each other via the mobile application.