

User-friendly mobile-based application for agricultural activities in Sri Lanka

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Sri Lanka is an agricultural country and 28.4% of the total labor force of the country is engaged with agricultural activities. Technology has impacted on day-to-day activities and the usage of smart phones has made people's lives easier than before with the innovative technologies. Farmers, Agriculture Instructors (AIs) and others in agriculture sector use smart phones for handling and managing their agricultural activities. Several mobile-based applications have already been introduced to Sri Lankan agriculture community. Lacking a standard user-friendly User Interfaces (UIs) is the biggest challenge in those applications. Therefore, it is very difficult to farmer to access the information from it. We developed a mobile-based application that is focused on several activities such as: selecting suitable crops to grow in specific area, managing every step in crop life cycle, weather information, disease identification and treatments and supply and demand model for crops, etc. For each aspect, different user-friendly UIs are designed. Initially, the information needed to create the application was gathered from farmers and AIs from Welimada and Nuwara Eliya areas. Gathered information was analyzed and that identified the farmers need the information based on their context and not in general format. Based on that, different UIs were designed for each purpose. The designed UIs were tested with farmers and AIs as trials. According to their comments and feedback, some of the UIs were eliminated and others were refined. This was repeated for several times with farmers and AIs. Using the UI and UX (User Experience) theories, and considering the standards and common features of mobile applications, the user-friendly mobile UIs were designed and then the mobile application was developed.

Keywords: UI/UX, mobile interfaces, mobile-based application and agriculture

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