

Intelligent Certificate Application (I-CAn)

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Abstract

Intelligent Certificate Application (I-CAn) is a web application that was developed to facilitate the process of preparing and printing the certificate for management and academic in Kolej Komuniti Kemaman. Through the use of this application, the certificate be available more systematically. Novelty and uniqueness of this application is the use of QR code in accessing records related to training/courses/academic activities. The main scope of this application is to print a certificate for participants, speakers and committee members who are involved in the implementation of training/courses/academic activities. There are three users can be able to access in this application which administrator, coordinator and director. Waterfall methodology used in application development. Laravel used as a framework, while PHP, HTML5, Javascript, JQuery and SQL used as a programming languages. In short, this application gives an advantage in accuracy of information other than smart, and save time in obtaining the required information.

Keywords: Certificate, QR Code

User Manual

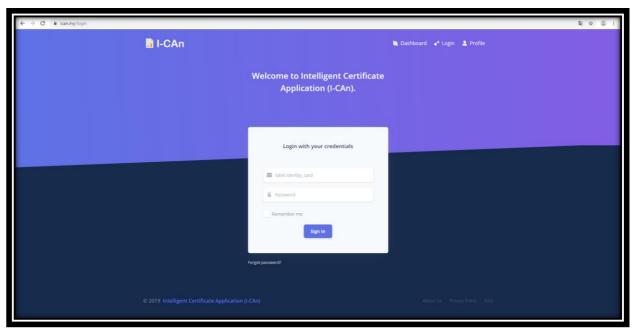


Figure 1: Main Menu Interface

Figure 1 shows the Main Menu Interface of the I-CAn application. User must enter no. Identity Card (ID) and password to log into I-CAn.



Figure 2: Application Dashboard Interface

Figure 2 shows the application dashboard interface that displays a graph of the number of programs executed by month. In addition, the number of registered users, the number of certificates generated and the total number of registered programs are also displayed.

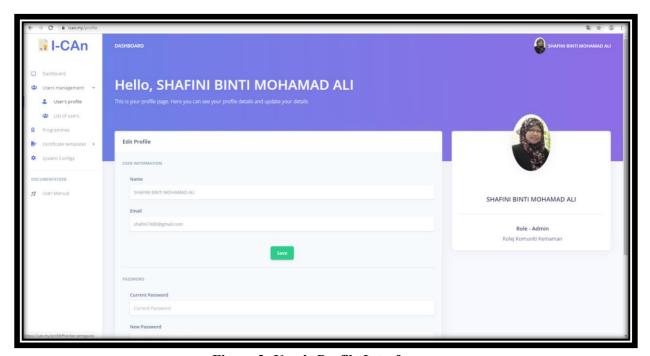


Figure 3: User's Profile Interface

Figure 3 shows the registered User's Profile interface where users can update the information that the application administrator has registered including changing the password set by the administrator.

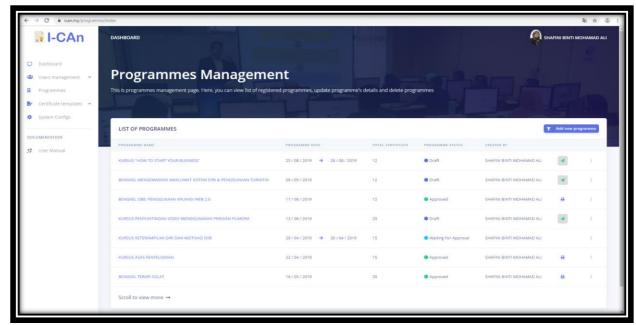


Figure 4: Program Management Interface

Figure 4 shows the Programs Management interface where users can view a list of programs that have been enrolled in I-CAn. The status of the program can also be checked if it has been approved by the Director for the process of printing the certificate, pending approval or draft. The Add New Program button is also available to allow users to add new program information.

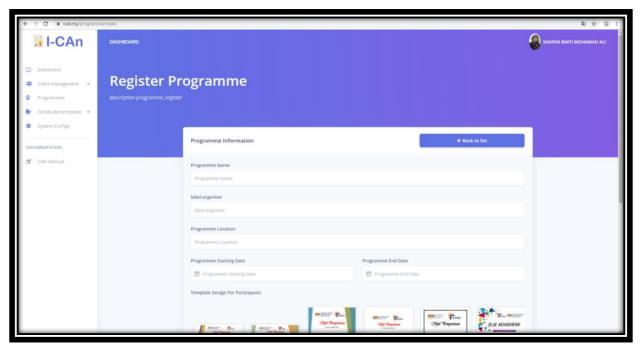


Figure 5: Program Register Interface

Figure 5 shows the Register Program interface which allows users to add new program information and select certificate templates for certificate printing purposes.

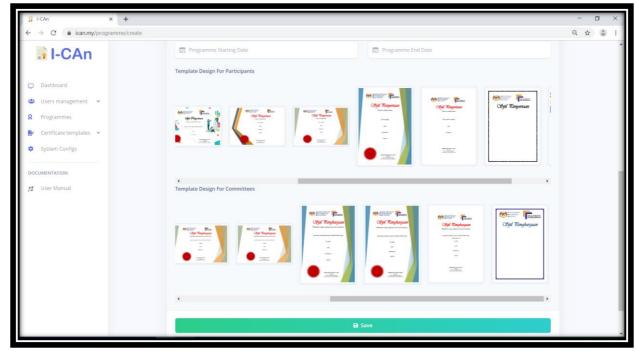


Figure 6: Template Design For Participants

Figure 6 shows the Register Program interface that allows users to select certificate templates for Participants and Committees. Click the Save button when all relevant information is entered.

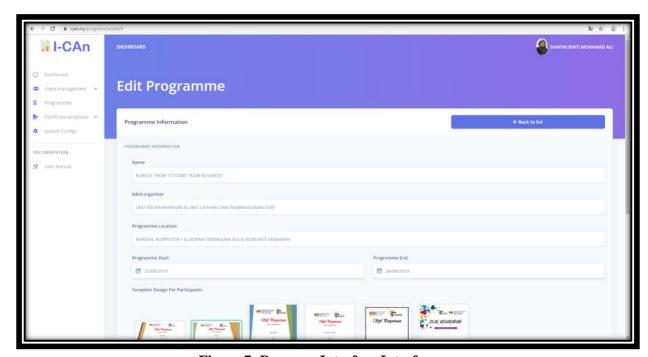


Figure 7: Program Interface Interface

The program information you have registered can be updated on the Edit Program page such as Figure 7 and click the Update button after updating the relevant information.

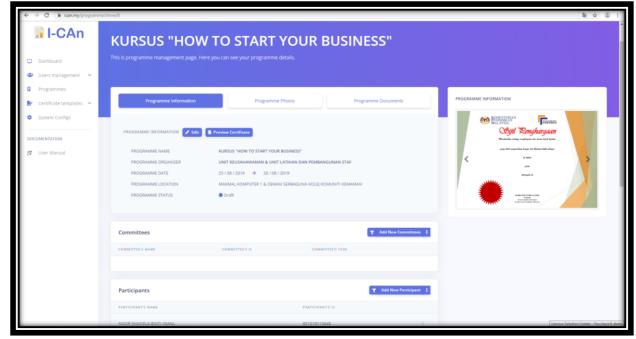


Figure 8: Interface Add Committee and Participant Information

The speaker information and program committee members can be registered in the Committees room while the participants 'information is registered in the Participants' room. All related information may be registered individually or in groups. Figure 10 is an example format for group registration using Microsoft Excel software. The related files will be uploaded in the Add New Committees tab and select Upload Excel Committees List as Figure 9. The same steps can be used to register participants in the Participants space.

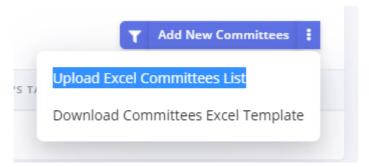


Figure 9: Excel Committees List Upload Interface

Figure 9 refers to the participant's information that can be uploaded into the system.

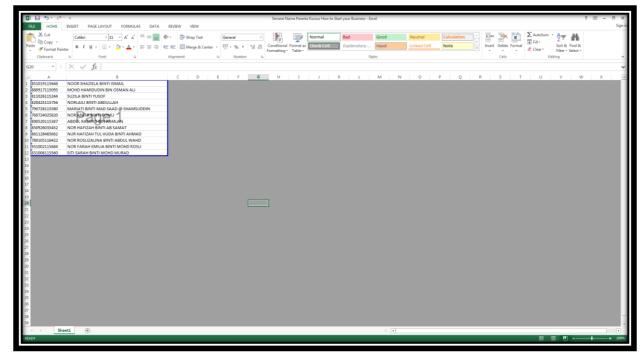


Figure 10: Group Registration

Figure 10 refers the function of group registration that can be done in Excel.

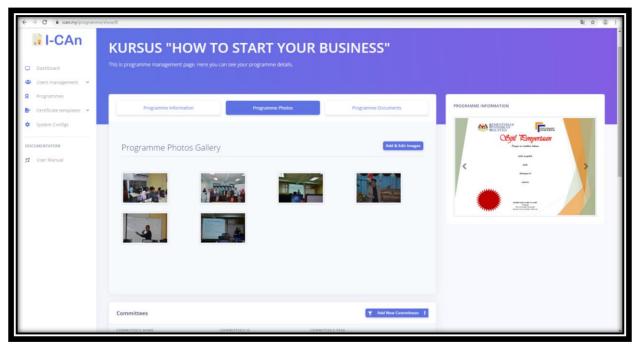


Figure 11: Add and Edit Photo Interfaces

Users can upload photos of programs that have been implemented in Add and Edit Photo as shown in Figure 11. Click the Add & Edit Images button to upload related images.

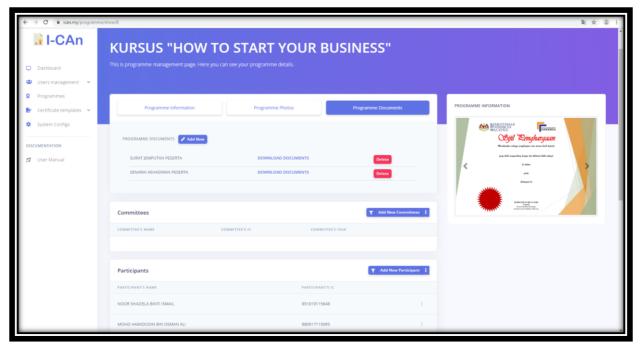


Figure 12: Add and Edit Program Document Interface

Figure 12 refers to the Add and Edit Program Document interface. This page allows users to upload documents / records related to programs such as Participant Invitation Letters, Participant List, course reference materials and more. Click the Add New button to add a related document / record.

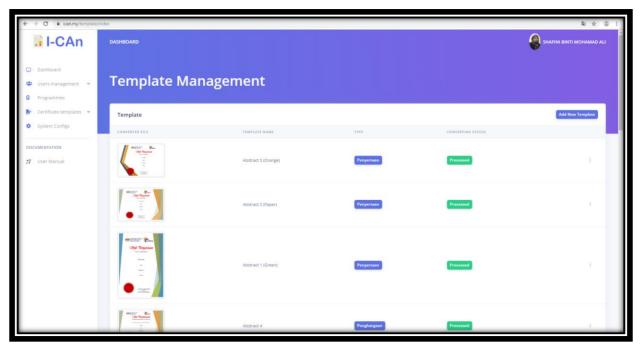


Figure 13: Template Management Interface

Figure 13 shows the Template Management interface. On this page users can view the list of certificate templates and provide buttons to add new templates as well as update or delete existing templates.

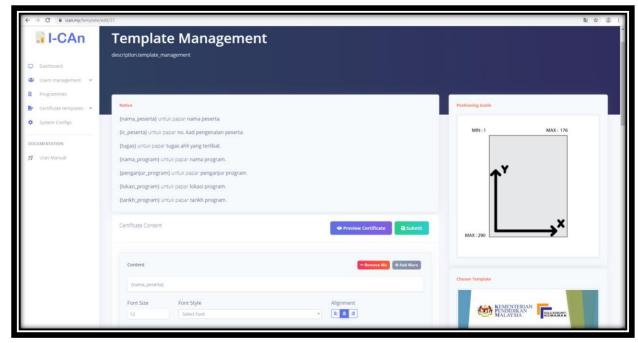


Figure 14: Content Certificate Editing Interface

Figure 14 shows the Edit Certificate Content interface. On this page, users can update the settings for certificates like content they want to display, text size, type of text, QR Code size and more.

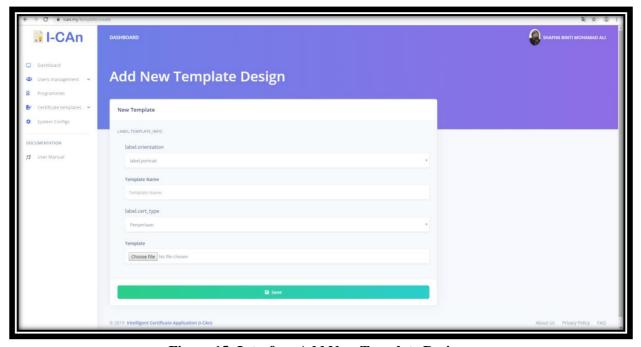


Figure 15: Interface Add New Template Design

Figure 15 shows the Add New Template Design interface. On this page, users can upload new certificate template. Admins and Secretariats will receive notification via email (refer to Figure 16) if template is added.

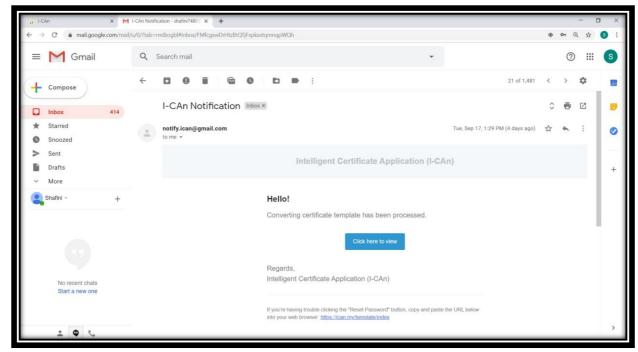


Figure 16: Email Interface Receiving Notification

Figure 16 shows that any recent changes in the system will be notified via email.

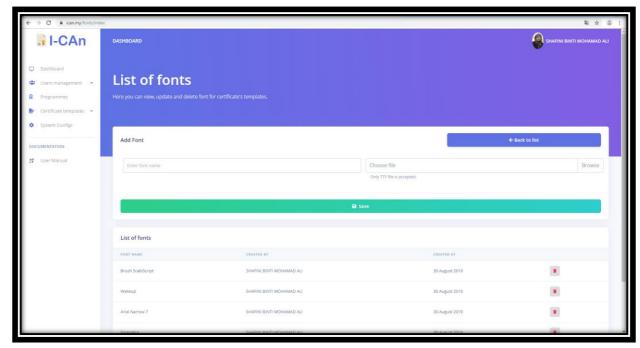


Figure 17: List of Fonts Interface

The application also allows users to add the type of writing they wish to use in the certificate to be printed. Only .ttf-formatted text is allowed to be uploaded through the List of Fonts page as Figure 17.



Figure 18: Generated Certificate Interface

Figure 18 shows an example of the certificate generated using the I-CAn application. The QR code contained in the certificate will be generated automatically by I-CAn.



Figure 19: Interface on Mobile Devices

Figure 19 shows an example page that will be displayed when the QR code on the certificate is scanned using a mobile device. This page contains program-related information, pictures and documents or program-related records.

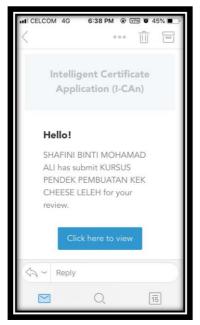


Figure 20: Director Email Receipt Notification

Figure 20 shows an example of a notification received by the Director by email when a confirmation request for a certificate is required.

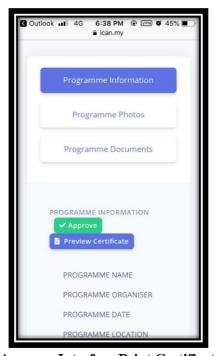


Figure 21: Approve Interface Print Certificate by Director

To approve the certificate application, the Director will need to click the Approve button as in Figure 21.

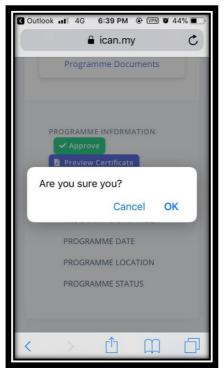


Figure 22: Authentication Interface for Certificate Print Approve

The Director will need to click the OK button to confirm the printing of the certificate as in Figure 22.

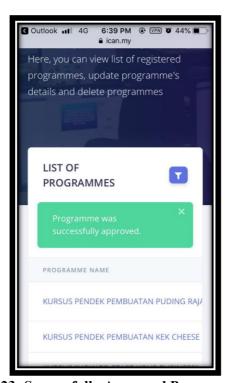


Figure 23: Successfully Approved Program Interface

Figure 23 shows the program interface successfully approved by the Director.