

The 11th International, Invention, Innovation & Design 2022



*Ushering in the Age of Endemic*

**THE 11TH INTERNATIONAL INNOVATION,  
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INDES 2022**

**EXTENDED ABSTRACTS BOOK**



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## ***The 11<sup>th</sup> International Innovation, Invention and Design Competition 2022***

*Organised by*

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## UITM: ONE STOP DATA CENTRE BOT

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### ABSTRACT

UiTM is a large organization with various units and departments. Each of the unit and department operates its own website to convey, manage and update system, information, calendar, forms, directory, circular and regulations. However, UiTM citizens such as staffs, academic advisors and students can become overwhelmed with the scattered websites throughout the UiTM internal system. At times, it is time consuming and exhausting to search for the required information due to the scattered websites all over the places. There were occasions in which UiTM citizens were not aware of such existence of a particular website of certain units or departments and some of them might have no clue of which website to source for forms download or information search. Therefore, a bot called 'UiTM: One Stop Data Centre' was developed using Telegram bot to overcome this problem. This bot is operated within the popular messaging app Telegram and free to use. With this bot, all UiTM system websites and other information are grouped, arranged and are accessible anytime and anywhere. Once the Telegram App was installed, the bot can be browsed, and used immediately. Since Telegram application can be installed in many devices such as mobile phone, tablet, and computer in various platforms such as Windows, Android, and iOS simultaneously with one account, this could be very helpful for UiTM citizens when they need to search for websites, download documents and retrieve information in just one stop data centre anytime anywhere without the need to google around vaguely.

*Keywords:* Telegram bot, UiTM system, one stop data centre, webpage, website.

### 1. INTRODUCTION

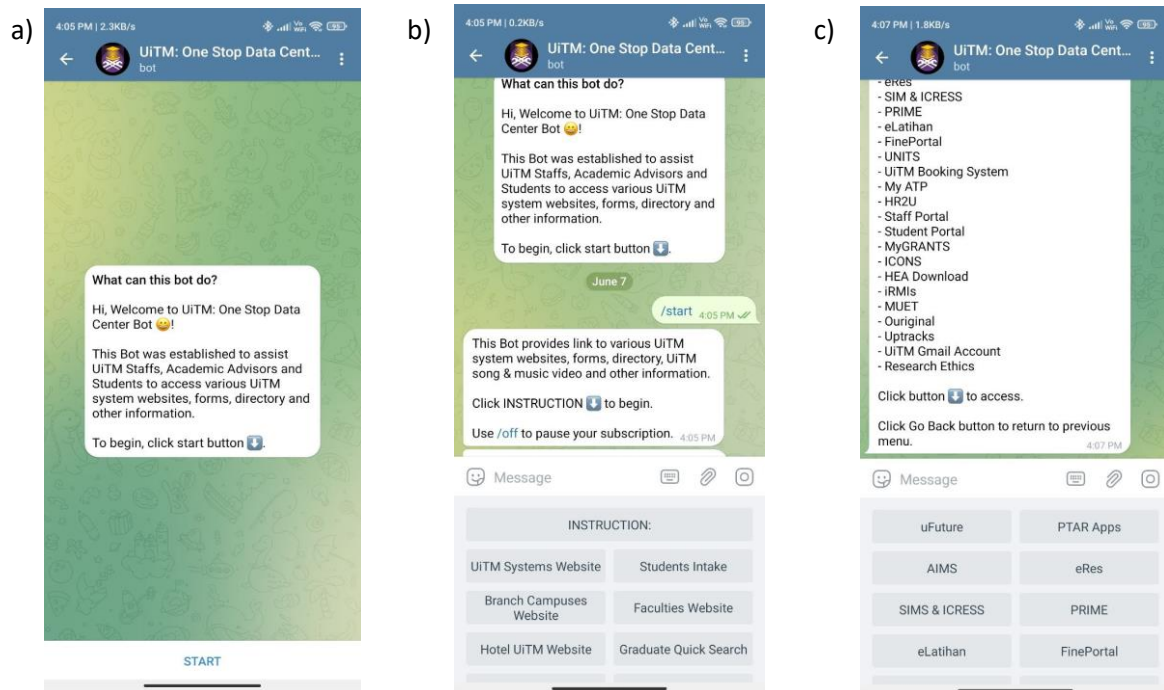
UiTM is a large organization with a huge number of staff and students. The most common platform used by all units and departments in UiTM to convey information, calendar, forms, directory, circular and regulation to staff and students is the official website. Due to the numerous units and departments that exist in UiTM, several webpages exist and are mostly scattered all over the sources. To browse, reach and access websites that are scattered all over the system for forms download or information search are intrincating, time consuming, and exhausting. Therefore, there is a need for one system that can provide links to all the scattered website to facilitate easy and fast access. This is where 'UiTM: One Stop Data Centre Bot' comes in to overcome the problem. It is a bot developed within the popular messaging app Telegram and is free for all to use.

Automation in Telegram bot is the process of using a bot to perform tasks automatically within the Telegram application. Bots are special accounts that do not need a phone number to set up and can handle messages from users through flexible interfaces. Bots can support any kind of task or service, such as hosting web apps, receiving payments, creating custom tools, integrating with other services, hosting games, building social networks, and more. The Telegram application was chosen because it is a better messaging application compared with the competitors since it offers features such as synchronization, fast services, reliable backups, and better security (Sebastian & Nugraha, 2021). Telegram also provides a familiar and widely used interface which many users are comfortable with (Gope et al., 2023). Since Telegram Application is so popular, there were numerous previous studies on the use of automation in Telegram bot to provide conveniences for users to interact with and to facilitate activities by using various devices such as mobile phone, tablet, laptop, and desktop computer (Abu.zaid et al., 2023; Mohan et al., 2021; Nizomutdinov, 2023; Oxoli et al., 2022; Rosid et al., 2018; Setiaji & Paputungan, 2018). Therefore, the ultimate goal of the present work is to provide an alternative free and open-source platform of one stop data centre application for UiTM staff and students.

## **2. METHODOLOGY**

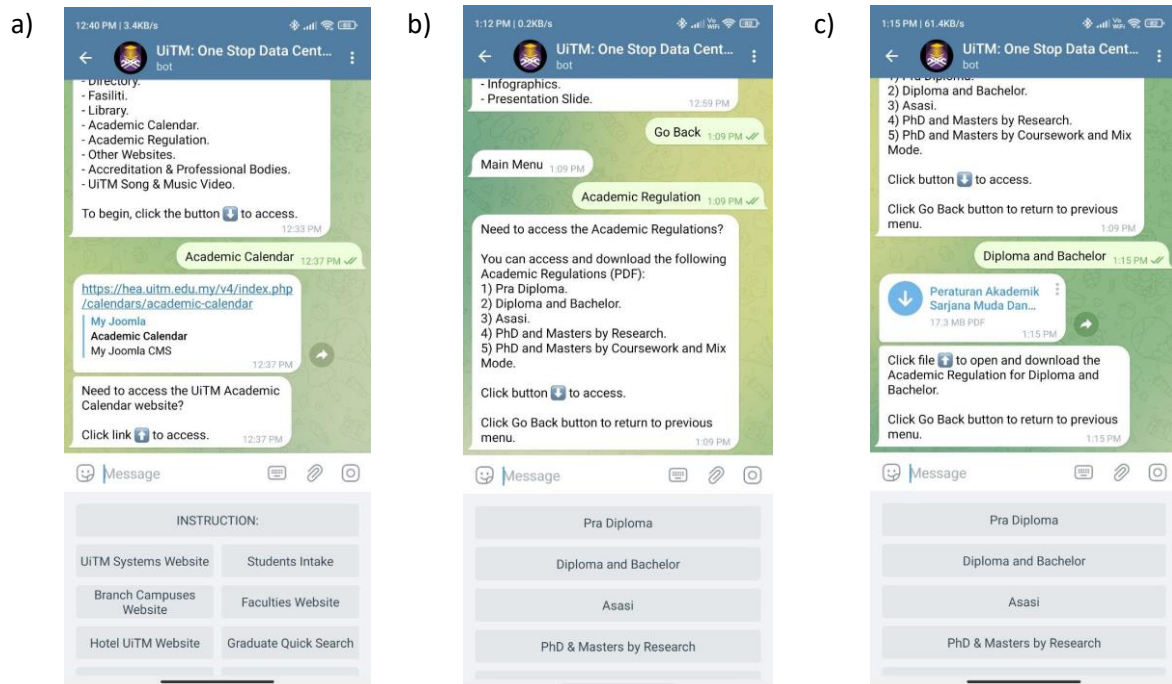
Telegram is a popular messaging app, and it provides a powerful feature which allows user to create and run application within. This feature is called bot. Users can interact with bots by sending commands. Bots will provide feedback based on the command it received. Once the bot was developed, the user can search for the bot by its name. When first accessing the bot, users will be greeted by Start button (Figure 1a). After the Start button is clicked, the interface with main menu button appears (Figure 1b). The list of menu button appears which can be scrolled up and down for users to select such as; UiTM System Website, Student Intake, Branch Campuses Website, Faculties Website, Hotel UiTM Website, Graduate Quick Search, Forms, Directory, Facility, Library, Academic Calendar, Academic regulation, Other Websites, Accreditation & Professional Bodies, and UiTM Song & Music Video. Users can click the Instruction button to get a brief explanation. Some of the button menu when clicked will bring to sub menu to select while some other button when clicked will display the link to website in the screen. When the link displayed is clicked, the website will be opened by the internet browser for users to interact with.





**Figure 1** (a) The start button (b) List of main menu button (c) Sub menu button

For example, when UiTM Systems Website button is clicked, the sub menu appears (Figure 1c). The list of sub menu which can be scrolled up and down are; uFuture, PTAR Apps, AIMS, eRES, SIMS&ICRESS, PRIME, eLatihan, FinePortal, UNITS, UiTM Booking System, myATP, HR2U, Staff portal, Student Portal, MyGRANTS, ICONS, HEA Download, iRMIs, MUET, Ouriginal, Uptracks, UiTM Gmail Account, and Research Ethics. If users click Academic Calendar button in the main menu list, the bot will straight away display the link to the website in the screen (Figure 2a) which users can click for a web browser to open. While when users click Academic Regulation button in the main menu list, another sub menu button (Figure 2b) will display for; Pra Diploma, Diploma and Bachelor, Asasi, PhD & Master by Research, and PhD & Master's Degree by Coursework and Mix mode. If for example, the user selects Diploma and Bachelor button, the screen will display the PDF file of Academic regulation for Diploma and Bachelor which can be clicked to open and download (Figure 2c). Above elaborations are the example of what the bot can do.



**Figure 2** Links to Academic Calendar Website and the Downloadable Files

### 3. CONCLUSION

With the introduction of this bot which operates within Telegram App, UiTM citizens as the end users will no longer need to install other applications. In the bot itself, the UiTM system websites and other information are provided and arranged in the menu and are accessible by users anytime and anywhere. Users can use a mobile phone, tablet, or computer to operate the bot in Telegram since Telegram can be installed in multiple platforms such as Android, iOS, and Windows. Due to the cloud-based operation, Telegram can be installed in many devices unlimited. Therefore, users can access the system faster anywhere and anytime. The data, information and documents obtained can be shared to others as well if required through Telegram or other messaging app. Below is the QR code that can be scanned to access the Bot in Telegram.



Figure 3 Telegram Bot QR Code

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Kelulusan daripada pihak tuan dalam perkara ini amat dihargai.

Sekian, terima kasih.

**"BERKHIDMAT UNTUK NEGARA"**

Saya yang menjalankan amanah,

**SITI BASRIYAH SHAIK BAHARUDIN**  
Timbalan Ketua Pustakawan

*nar*

*Setuju.*

*27.1.2023*

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