

MOBILE APPLICATION FOR COLLEGE EVENT MANAGEMENT

Mrs.Prasanna Pabba¹, B.Viswadha², P.Srivani³, P.Rajashree ⁴, S.Vinay Kumar⁵

¹Associate Professor, Dept. of Computer Science and Engineering, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad, India

^{2,3,4,5}Student, Dept. of Computer Engineering, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad, India

Abstract - There are different fests and events organized in our college every year. Currently all the work is done manually. This project "VNR CONNECT" will help to override the problems prevailing in practicing the manual system. This project helps the event organizers to organize the events in a much easier way. The organizers can add all the details of the events and open it for registrations in this app. The participants can get all the details and register for the events in a much simpler way. This project also includes details of all the clubs and student chapters that we have at VNR VJIET. Students can also register for these clubs and get all the details about events that are being organized by each club. Post event activities like result announcements, photos are showcased on this application.

Key Words: Flutter, Firebase, Clubs, Student Chapters, Events

1. INTRODUCTION

Every time a college or university holds an event, there are more things that need to be done, such as planning the event, monitoring the plan, adhering to a strict budget, communicating the event's exact details to the students, conducting registration, sharing invitations, advertising among colleges, and occasionally lacking live audience interaction. Students that keep up with college activities never miss the chance to represent their institution, and college events attract a lot of participants. And the information about the college clubs and their registration should be readily accessible to the students. Online communication will be useful for conveying urgent or vital messages to the students.

The majority of students would benefit from an android app. It would increase the number of message recipients and perhaps even reveal the precise number, which can also aid in predicting event attendees. There isn't a single application for all student chapters and clubs, and the ones that are there are static websites. A better application is required so that students can experience college life with more options and event organizers can better control the attendees.

2. LITERATURE SURVEY

[1] Sonal Sawant, Pooja Jamdhade, et al., (2021) in their paper titled "**App for Organizing Alumni Event**" they stated that Online Event Management is an application, which is designed for managing the events in the respective colleges. It is a college level application. It is a flutter-based Application. NoSQL database, MongoDB and Firebase are used for this application. The system is simple and secured as all the data is encrypted and stored. As the database is online, no loss of data will occur. Reduced manual work in organizing an event. Students from other colleges might not be able to access the app for registrations. Mostly personalized to a single user. Previous year event details not present. Different club registrations and club related content is not present.

[2] Reetu Malhotra , Dev Priya Gupta, et al., (2020) in their paper titled "**An Android Application for Campus Information System**" the primary motivation behind developing the app was to combine the needs of students, instructors, and administrative personnel at a school into a single application. With the aid of SQLite Database and Android Studio, the application is created. This application has undergone Robotium testing. The app helps teachers to update attendance and marks of students. The app helps students to check attendance and marks. Authentication is based only on name and password, but not college email id which is not secure. Students from other colleges might access the app due to less secure authentication mechanisms.

[3] Prof. Vaishali R. Surjuse,Nikita M. Bawankar, Ankita T. Tembhurne et al., (2021) in their paper titled "**EVENT MANAGEMENT SYSTEM**" they stated that this application has been developed using PHP, HTML, CSS. The user only needs to enter the data once in this system before it is saved in the database and connected to all files. This is a time-saving procedure that also lessens the user's workload. The sql database administration is employed in the suggested research activity for all data retrieval and interpretation. The main objectives of this project are

- Shorten the time spent locating a location.
- Easy to use GUI.
- This system works well and offers the user the best value for money.
- Reduce communication time.
- Manage Multiple Events Effectively

But this project may not fulfill the functionalities because No feature like whole data of the event and the timelines of the events is evaluated, Limited resource usage, No feature like previous years events data or winners details.

[4] S. Sangeethaa, G. Kirubhakar et al., (2016) in their paper titled "**Android Application for College Website**" states that this programme is used to manage an institution's operations. Three tiers of architecture are used to implement the application. Three-tier architecture, often known as client-server architecture, places the client on one side as the service requester and consumer, and the server on the other as the service provider. The third layer serves as the intermediary layer, transforming user requests into ones that the server can process. The system that was created has an Android client side application as part of its front end. The key benefits of this programme are its friendly interface, practicality, and ease of use.

[5] Kumar Mishra et al., (2022) in their paper titled "**COLLEGE EVENT WEB APPLICATIONS**" explains the system in such a way that a logged-in user may use the programme while new users are permitted to register. The project offers the majority of the fundamental capabilities needed for an event type. The information is subsequently forwarded to the administrator, who may then share it with the client as needed. can be utilized for participant usage or online registration. proper scheduling and usage of online resources. shorten the time it takes to enroll in college.. Have a User Friendly GUI.The events are not open to students from other colleges.

[6] HOD. Dr. R. Juliana, Naveen Kumar VG, Richard G, Shividarshini et al. (2020) in their paper titled "**Evecurate - A Smart Event Management App Using Flutter and Firebase,**" states that the application was developed to include all essential services for planning and managing events in colleges and universities. The programme contains built-in QR technology, which generates QR codes that event goers may use during registration to speed up the check-in process. The use of QR technology for audience engagement at events enables participants to provide feedback on held activities as well as take part in polls or Q&A sessions that may be held using the application. The app helps teachers to update attendance

for the students in the attendees section of the event. The app helps students to give polls and feedback, and have a question Answer section and review section. Additional features like vendor recommendation and e-invitation planner also present. This application is for single college event organization and conduction. No physical tracking of the person except the participation list.

[7] Liu Jianglong, Xiong Min et al., (2016) in their paper titled "**A Mobile Social App for College Students based on Perceived Similarity and Trust**" developed a mechanism to address trust concerns and boost both online and off-campus social life. Based on perceived similarity and trust, it resolves user trust difficulties. The mobile client and application are built on the Android operating system and Java programming language, respectively. Data storage is handled by a SQLite database. Users of this software on campuses may better satisfy their social and everyday life demands thanks to its specifically tailored design. The certification method in this app can increase users' perceptions of similarity and trust. Users have the option to start, scan, sign up for, and comment on activities. It has no features related to Technical Skills or Education where students can share their knowledge and discuss their ideas.

[8] Wang Wei, Xuan Lingqiang et al., (2015) in their paper titled "**Design and Implementation of Small and Medium Sports Events Management Platform for Colleges**" effectively integrates the management system for medium- and small-scale sports events. In order to implement the management system of competition rule changes in sporting competitions, this article also modifies key functions. Along with managing background data in the system and on the website for sporting events, it also groups and verifies athletes' identities. They use RDBMS-based information exchange so that system data may be shared for system administration. The technology may be widely advertised and used in school sports events since it is easy and easily controlled.

[9] Shiv Kumar, Shravan kumar Sharma et al., (2018) in their paper titled "**Android Based College Campus App**" designed an android app for better organization of college activities. The software is built using cutting-edge technologies like SQLite and Android. The business logic was built in Java, while the displays were created using XML. This app provides guidance for students regarding placements. As students understand about different companies visiting their campus they can prepare accordingly. Sending mails to students made easy. Authentication is based only on name and password, but not college email id which is not secure. Students from other colleges might access the app due to less secure authentication mechanisms.

[10] S. Sangeethaa, G. Kirubhakar et al., (2020) in their paper titled "**Android Application for College Events**" states this app uses Flutter for Frontend and Firebase for Backend. The proposed system has three important features: A Virtual Board, Urgent Alerts and Bookmarks. The Events tab contains details on all events listed in our application. Notices tab is used for sending urgent messages among students. Bookmarks tab, can be used by users to save notices and events that she/he is interested in. In terms of functionality and student needs, this software outperforms other Android or web-based alternatives significantly.

[11] Bhushan Sonawane, Akash Ombase et al., (2020) in their paper titled "**CHATBOT FOR INSTITUTIONAL PURPOSE**" explains how to build a user-friendly chatbot for Facebook that can handle any questions kids have about college (academics, admissions, and facilities) and respond to them appropriately. They worked on a number of components, including admissions, academics, and facilities. Chatbot was not particularly clever, and users had to modify their vocabulary to fit the chatbots. In the future, this project's scope may be expanded to include the Student RIT Official website, giving students a quick and simple option to acquire answers to their questions.

[12] Eriks Sneiders et al., (2020) in their paper titled "**Automated FAQ Answering with Question-Specific Knowledge Representation for Web Self-Service**" describes using statistical and template-based approaches as FAQ Retrieval Approaches. The system compares a query to FAQ entries and perhaps additional FAQ records or files. In order to provide more lexical variety, the algorithm matches a new inquiry not only to the original FAQs but also to the connected clusters of prior inquiries. More than two thirds of all searches are satisfied by intelligent search, which advances frequently sought solutions. In this approach, the quantity of hits per FAQ is effective. By responding to FAQs, site search's flaws are removed. It is impossible to prevent using incorrect keywords and the confusing "0 records found" message.

[13] S. Sangeethaa, G. Kirubhakar et al., (2016) in their paper titled "**Android Application for College Website**" states that this app is used to handle the operation of an institution. Three tiers of architecture are used to implement the application. Three-tier architecture, often known as client-server architecture, places the client on one side as the service requester and consumer, and the server on the other as the service provider. The third layer is the intermediary layer, which transforms user requests into formats that the server can process. The system that was created has an Android client side application as part of its front end. The pros of using this strategy in real time

include ease of operation and handling, a welcoming interface, but a challenging process.

[14] K.Bala,Mukesh Kumar et al., (2017) in their paper titled "**Chat-Bot For College Management System Using A.I**" The Porter stemming algorithm is used. This system will be a web application that responds to the user's examined questions. When a user complaint is sent to the system, NLP is used to identify its sense and prioritize it appropriately. A lexical and semantic database for the English language is called WorldNet. A method for eliminating suffixes is the Porter stemming algorithm. Sentiment analysis is used to prioritize inquiries, and the most crucial ones are addressed first. It is an application for higher education. The data is not being kept current. Users may get the incorrect answers, leading to a breakdown in communication.

[15] Mrs.Sheetal , S. Patil et al., (2018) in their paper titled "**Chatbot for college website**" uses Artificial intelligence and natural language processing. The system will simply accept the user's question, which may be from a student or parent, and respond in line with it. query. The system will compare the user question with the knowledge base to determine the best answer. Through the use of the login system, administrators may view incorrect responses and delete them. We have 24x7 availability for all student and parent queries. To reach college administration easily and reduce visits to college administration for every enquiry. If no internet is available, it does not function. If a bot is misused, the administrator has to do additional effort.

[16] Sandeep Misal, Sagar Jadhav, et al., (2017) in their paper titled "**Review on College Event Organizer**" describes that This paper's application is a communication and management tool that will be useful for event planning. It is used to communicate the event timing scheduling, sending various important documents such as an event poster, certificate demo, payment receipt, etc.; setting up and administering groups for campaigning or delegating specific responsibilities; altering the calendar; and alerting the changes in the programme, etc. There will be less of a communication gap between students and event coordinators. Students get access to all events and can take part. Changes to the schedule will be simply communicated to everyone.. Day to day reminders to participants.

[17] Jashandeep Singh, Swapnil Srivastva, et al., (2022) in their paper titled "**Flutter and Firebase making Cross-Platform Application Development**" describes the brief research on the flutter and firebase technologies. It tells about the advantages of these frameworks on the other. One of these benefits is that the Flutter framework doesn't ask the operating system to draw buttons when a

developer builds them. In this paper they also compared the differences between usage of new technologies like react native etc. They did research on interest in the developer on which technology to be used. Fast Development is a feature of Flutter that will save you a tonne of time. The "hot reload" feature of Flutter allows you to see the results of code changes quickly. Fast rendering and amazing customization.

[18] Akash Verma, Gunjan Srivastava, et al., (2017) in their paper titled "**Study on Event Management Applications**" provides an overview of event management and attempts to create a platform for interaction between vendors and customers. The application offers the ability for users to send and receive messages via Google's GCM service. Interactive user interface for simple, rapid tasks. This system offers the opportunity for public conversation and comments for efficient communication and transparency. uses modules such the Search and Select Module, Review & Rating Module, Messaging Module, and Booking & Payment Module to tailor the level of service provided to clients.

[19] Rinat Khatipov, Manuel Mazzara, et al., (2018) in their paper titled "**Hikester - the event management application**" states that giving users the option to host any kind of event and invite other users to it is the major objective of this service. "Hikester" helps with the organization and arranging of activities such as attending football games, utilizing quest rooms, riding shared transportation, or visiting foreign museums. The project's architecture as well as the precise ways the recommender system, spam recognition service, and parameters optimizer were developed were covered in this paper. This mobile app's major building block is the VIPER design pattern, which stands for View, Interactor, Presenter, Entity, and Routing. The JSON API was used to keep the front-end mobile applications connected to the back end. The backend makes use of Firebase.

[20] Dr. Ahmad Raza Khan, Omar Hamad Alatiyyah, et al. (2018) in their paper titled "**A Service Oriented Architecture based Comprehensive Smart Calendar for scheduling and managing real-time events,**" states that they are building a web application that can largely meet the needs of the students by utilizing new technology. and by combining that with a straightforward, appealing user interface. They believe that because of the project's speedy dissemination among students, higher efficacy, and lower cost, it will have a greater chance of reaching more kids. The major goal of the project is to provide students the tools they need to manage their daily activities by creating a web application that will greatly improve both their personal and academic life by allowing them to arrange their schedules, assignments, and examinations. Any event

or reminder you put up may be added, edited, or updated on the website using a clever and simple interface. The idea will help students who are having a hard time keeping up with everyday obligations save time and money while also boosting their scores and, ultimately, their lives.

[21] Ali Ahmed Abed Ali , Mohammed Dauwed , et al., (2018) in their paper titled "**Development of a Hybrid Mobile App for Student Management System**" uses a hybrid mobile application to manage student registration activities in schools. The hybrid app was made using the Firebase database and the Flutter framework. Any school or institute can use this project to help teachers, management, and students set, pick, and identify an appropriate time for their courses, as indicated by the timetable. When it comes to handling student registrations and information, this project offers managers a number of important advantages. This application has Database Module and Student Management Module.

[22] Ruijin Lin , et al., (2020) in their paper titled "**Development and Application of Computer Experiment Course App for College Students**" stated the problems in laboratory management learning and tried to overcome it by using software implementation. For this they analyzed the user groups and needs of equipment management information. Then they used UML to plan and design the overall architecture. They used Cross Platforms scheme and java language for developing. And They also debugged , released and tested the application. Their main aim is to establish a mobile platform of computer laboratory informatization.

[23] Alireza Sahami Shirazi, Niels Henze, et al., (2014) in their paper titled "**Large-Scale Assessment of Mobile Notifications**" describes the first large-scale study of smartphone alerts with an emphasis on users' subjective perceptions They analyze what users like and hate about notifications using a data-driven, app-driven approach. Results include variances in the weight given to notifications and how much users appreciate notifications from chat apps. Users value notifications from calendars, messaging apps, and other communication apps more than they value notifications from system programmes overall. They demonstrate why consumers think notifications are crucial by examining the opinions of users.

[24] Abhinav Mehrotra, Mirco Musolesi, et al. (2015) in their paper titled "**Designing Content-driven Intelligent Notification Mechanism for Mobile Applications**" presents a study of mobile user interruptibility with respect to notification content, its sender, and the context in which a notification is received. They go through classifier design for figuring out the best time to send a

notice with a certain kind of information. This work develops a unique machine learning technique that, considering a notification's content and delivery circumstances, predicts whether it will be accepted.

[25] Attila Wohllebe, et al., (2020) in their paper titled "**Consumer Acceptance of App Push Notifications: Systematic Review on the Influence of Frequency**" highlights the several ways that advertisers may utilize push notifications to reach their audience, but it's crucial to recognise how the regularity of message delivery affects customer acceptability. The systematic review initially unearths a total of 18,725 potentially important scientific publications using the PRISMA methodology. Studies that focus on the actual observed behavior of app users rather than behavior reported via questionnaires have been shown to have a research gap. This study looks at how alerts' frequency, content, and display interact.

[26] Kiemute Oyibo, Plinio P Morita, et al., (2021) in their paper titled "**Designing Better Exposure Notification Apps: The Role of Persuasive Design**" describes about Applications for contact tracing have been implemented globally to stop the spread of COVID-19 during this epidemic and to make it easier to relax public health restrictions. In this work, they examined how adding persuading elements to contract-tracing apps may enhance adoption, usage, reporting diagnosis, and compliance with social distancing rules by utilizing the Government of Canada's exposure notification app, COVID Alert, as a case study.

[27] May H. Riadh, et al. (2016) in their article titled "**Notification System to Students Using an Android Application**," claimed that their objective was to build a notification system using an Android application and connect it to the university's instructional website. It offers a wealth of data on education, courses, and college students in general that aids the instructor in deciding to whom to send alerts. Additionally included are the ability to send reminders, keep track of attendance, and view academic data like test scores.

[28] Ghaliya Muslem Alfarsi, Mariam Juma, et al., (2018) in their paper titled "**Developing a Mobile Notification System for Al Buraimi University College Students**" states that the tool's primary goal is to make it easier for students and their professors to communicate via the notification feature. A mobile operating system connected to a website through a mobile application powers this. They noticed that SMS affects students' opinions favorably and enhances their academic achievement.

[29] Renfei Liu1, et al., (2020) in their paper titled "**Application Strategy of Big Data in College Student Association Activities**" explains how the use of big data technologies can change the management of student clubs and associations from static and result-based to dynamic and process-oriented. According to a survey, the efficiency of resource sharing in student club management is comparatively low, accounting for 52.35 percent of the total quantity of resources. Thus, as big data application approaches, student club administration systems, club evaluation mechanisms, student activity needs, community resource sharing, and intercommunication are explored.

[30] Ghalyia ALFarsi,Jasiya Jabbar,, et al., (2018) in their paper titled "**Implementing a Mobile Application News Tool for Disseminating Messages and Events of AlBuraimi University College**" describes about the mobile notification system in the BUC NEWS mobile application tool. The application supports popular mobile operating systems including Android and iOS. All AlBuraimi University College news and events are included there (BUC). They are more worried about the kids who fail to read the notices posted on the notice board. And the outcome demonstrates how interested and pleased people are with the BUC NEWS mobile application tool.

3. METHODOLOGY

This project's goal is to create a single application for handling all of the clubs, student chapters, and activities held at a college or a university. By creating this application, the organizers may quickly plan their anevent, which pulls lots of participants and allows for online communication of the precise event details.

The mobile app interface allows the student chapter or club leaders to make changes to the application servers. For event organizers, promoting their activities becomes simple.

Users of this application can use the mobile app to view events and register for specific events, clubs or student chapters. Users learn about various clubs, student chapters, and events since they are all in one location. It's simple to join any clubs or student chapters. And the notifications regarding new events/ activities are implemented.

The information is kept in a firebase database, which is updated anytime the app server encounters any changes. Firebase is a backend-as-a-service (Baas). It provides a variety of tools and services to developers so they can produce top-notch apps and grow their user base.

APIs are used to accelerate development by eliminating the requirement to write each functionality from scratch.

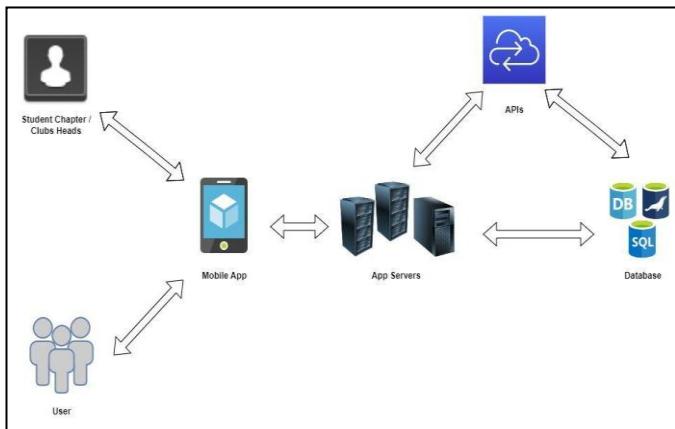


Fig 1: Overall work flow chart

4. CONCLUSION

This application's main objectives are to maintain all clubs and events on the same system, to foster collaboration, and to reduce physical labor. Making registration, learning about, and attending events is made simple for both event organizers and attendees. The numerous student chapters and organizations in VNR are made accessible to newcomers, making it simple for them to join.

5. REFERENCES

- [1] Sonal Sawant, Pooja Jamdhade.App for Organizing Alumni Event Using International Research Journal of Engineering and Technology (IRJET) Paper-May 2021.
- [2] Reetu Malhotra , Dev Priya Gupta.An Android Application for Campus Information System Using Procedia Computer Science -2020.
- [3] Prof.Vaishali R. Surjuse,Nikita M. Bawankar, Ankita T. Tembhurne.EVENT MANAGEMENT SYSTEM Using International Journal of Advance Research and Innovative Ideas in Education(IJARIIE)-2021
- [4] S. Sangeethaa, G. Kirubhakar,Android Application for College Website,2016 South Asian Journal of Engineering and Technology.
- [5] Kumar Mishra, COLLEGE EVENT WEB APPLICATIONS Using International Journal of Advance Research and Innovative Ideas in Education(IJARIIE)-2022
- [6] HOD. Dr R Juliana, Naveen Kumar VG, Richard G, Shivadarshini .Evecurate – A Smart Event Management App Using Flutter and Firebase Using International Journal of Scientific Research & Engineering Trends-2020
- [7] L. Jianglong and X. Min, "A Mobile Social App for College Students Based on Perceived Similarity and Trust," in 2016 8th International Conference on Information Technology in Medicine and Education (ITME)
- [8] W. Wei and X. Lingqiang, "Design and Implementation of Small and Medium Sports Events Management Platform for Colleges," 2015 8th International Conference on Intelligent Computation Technology and Automation (ICICTA).
- [9] S. Kumar, S. k. Sharma and D. Dagwar, "Android Based College Campus App," 2018 Second International Conference on Computing Methodologies and Communication (ICCMC).
- [10] S. Sangeethaa, G. Kirubhakar.Android Application for College Events Using International Research Journal of Engineering and Technology (IRJET)-2020
- [11] Bhushan Sonawane, Akash Ombase. CHATBOT FOR INSTITUTIONAL PURPOSE Using International Research Journal of Modernization in Engineering Technology and Science.-July 2020
- [12] E. Sneiders, "Automated FAQ answering with question-specific knowledge representation for web self-service," 2009 2nd Conference on Human System Interactions.
- [13] S. Sangeethaa, G. Kirubhakar.Android Application for College Website Using South Asian Journal of Engineering and Technology-March 2016
- [14] Prof.K.Bala,Mukesh Kumar, Sayali Hulawale, Sahil Pandita.Chat-Bot For College Management System Using A.I Using International Research Journal of Engineering and Technology (IRJET) - Nov -2017.
- [15] Shivam, Kumar & Saud, Khan & Sharma, Manav & Vashishth, Saurav & Patil, Mrs.Sheetal. (2018). Chatbot for College Website. 5. 74-77.
- [16] Sandeep Misal, Sagar Jadhav , Tushar Jore , Archana Ugale. Review on College Event Organizer Using International Research Journal of Engineering and Technology (IRJET)-March 2017.
- [17] Jashandeep Singh, Swapnil Srivastva, Dipanshu Raj. FLUTTER AND FIREBASE MAKING CROSS-PLATFORM APPLICATION DEVELOPMENT HASSLE-FREE Using International Research Journal of Modernization in Engineering Technology and Science-April-2022

- [18] Akash Verma1 , Gunjan Srivastava, Himanshu Verma, Mayank Johri. Study on Event Management Applications Using International Journal of Innovative Science and Research Technology-April 2017.
- [19] Khatipov, Rinat & Mazzara, Manuel & Negimatzhanov, Aydar & Rivera, Victor & Zakirov, Anvar & Zamaleev, Ilgiz. (2018). Hikester - the event management application.
- [20] A. R. Khan, O. H. Alatiyyah and K. A. Aljadaan, "A Service Oriented Architecture based Comprehensive Smart Calendar for scheduling and managing real-time events," 2018 21st Saudi Computer Society National Computer Conference (NCC).
- [21] A. A. A. . Ali and M. Dauwed, "Development of A Hybrid Mobile App for Student Management System", J. Adv. Sci. Nanotechnol., vol. 1, no. 1, pp. 37–42, Apr. 2022.
- [22] R. Lin, "Development and Application of Computer Experiment Course APP for College Students," 2020 5th International Conference on Smart Grid and Electrical Automation (ICSGEA).
- [23] Shirazi, Alireza & Henze, Niels & Pielot, Martin & Weber, Dominik & Schmidt, Albrecht. (2014). A Large-scale assessment of mobile notifications. Conference on Human Factors in Computing Systems - Proceedings.
- [24] Mehrotra, Abhinav & Musolesi, Mirco & Hendley, Robert & Pejovic, Veljko. (2015). Designing Content-driven Intelligent Notification Mechanisms for Mobile Applications.
- [25] Wohllebe, Atilla. (2020). Consumer Acceptance of App Push Notifications: Systematic Review on the Influence of Frequency. International Journal of Interactive Mobile Technologies (JIM).
- [26] Oyibo, Kiemute & Morita, Plinio. (2021). Designing Better Exposure Notification Apps: The Role of Persuasive Design.
- [27] Riadh, May. (2016). Notification System to Students using an Android Application. International Journal of Computer Applications.
- [28] Alfarsi, Ghaliya & Juma, Mariam. (2018). Developing a Mobile Notification System for Al Buraimi University College Students.
- [29] Liu, Renfei (2020). Application Strategy of Big Data in College Student Association Activities. Journal of Physics Conference Series.