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CoSa MANAGEMENT SYSTEM 2.0

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ABSTRACT

The CoSA Management System represents an innovative technical solution that significantly transforms member involvement within the College of Computing, Informatics and Mathematics (KPPIM) at the UiTM Sabah Branch. The system aims to automate the member registration process and establish a consolidated platform for efficient information transmission, thereby serving as a catalyst for boosting the faculty experience. The primary objective of the CoSA Management System is to optimize the complex procedures involved in member registration. The system's implementation greatly enhances the registration process's efficiency by transitioning from manual procedures to a user-friendly digital platform. This transition eliminates the need for laborious paperwork and reduces the time spent waiting for registration. The innovation has a broader reach, as its aim is to cultivate a cohesive community within the KPPIM by providing a centralized platform for members to obtain up-to-date information on events, programs, workshops, and news. Implementing a centralized strategy enhances communication and fosters a sense of togetherness among the members. The system's efficacy relies on its comprehensive features, which effectively meet the diverse needs of KPPIM members. The platform enables streamlined registration for various events, seminars, workshops, and other activities, utilizing technology to ease a previously intricate procedure. Furthermore, individuals are granted the authority to independently oversee their registrations, encompassing tasks such as modifying personal information and terminating their involvement, all inside the user-friendly interface. The empowerment described aligns with the underlying principles of CoSA, as it aims to provide a customized experience for every individual involved. The CoSA Management System is designed and developed based on the System Development Life Cycle (SDLC). This technique guarantees a methodical approach throughout the entire process, from the initial idea to the final implementation, ensuring the system's dependability, scalability, and long-term viability. The advantages derived from the CoSA Management System are significant. The system enhances administrative operations by implementing automation and centralizing member registration, saving time and resources for the institution and its constituents. The system ultimately transforms the dynamics of member engagement, promoting effectiveness, communication, and community development inside the KPPIM at UiTM Sabah Branch.

Key Words: information system; automation; digital platform; centralized; management

1. INTRODUCTION

Management Information Systems (MIS) are a key part of modern business because they help make things more productive and efficient. MIS is a way for an organization to gather, handle, store, and share information so that it can be used to make decisions and run more smoothly. Definitions have been given by well-known experts in the field. One definition of MIS from 2002 is "a system that provides information needed to manage organizations efficiently and effectively." It is what Laudon and Laudon (2018) call "a system that turns data into information and is used by an organization to make decisions." Finally, O'Brien and Marakas (2018) define MIS as "a system that gives managers and employees the information they need to make decisions."



MIS is all around us and a part of our everyday lives. When it comes to education, it makes administrative jobs like registering students, grading them, and keeping track of attendance easier, which makes staff and students more engaged. MIS helps with allocating resources, managing projects, and making decisions in organizational management, all of which have a big effect on how efficient and powerful a company is. On a daily basis, MIS is also used to keep track of inventory, handle payroll, and manage relationships with customers. Real-time data and automatic processes make it a very useful tool for modern businesses because they make sure that important tasks run smoothly.

Let's look at what happens at UiTM Sabah Branch, especially for students who are getting their Diploma in Computer Science, to show why MIS is important. Traditionally, registering students with the Computer Science Club of UiTM Sabah Branch (CoSA) has been done manually, which takes a lot of time and can lead to mistakes in the data. Without a central system, it has been hard to keep track of all the records of all the Computer Science students and the activities put on by the CoSa, such as who signed up for programs and how the events were run. Because of these manual processes, there is duplicate data, missing records, and trouble finding program details like locations, times, and people in charge of events like the Web Development Workshop and E-Waste Collection Day. The suggested CoSA Management System is an innovative way to deal with these issues. It would make registration easier, keep better records, and run programs more smoothly for both students and even the lecturers.

2. METHODOLOGY

The ADDIE model is used to plan the creation of the CoSA Club Management System. The steps are Analysis, Design, creation, Implementation, and Evaluation. Each step is necessary to make a system that works well and efficiently.

During the analysis part, the project team did a lot of investigation to learn about the system's goals and get feedback from UiTM Sabah Computer Science students. This included polls, interviews, and a full review of current procedures, which helped define the system's purpose and what users needed from it.

Before moving on to the design part, the architecture, database, and user interface of the system had to be carefully planned out. Mock-ups were used to see how users would interact with the site. Important parts of this stage also included choosing the right technology stack and planning how to collect data and show it.

After that, the CoSA Club Management System was coded and put into use during the development phase. A lot of testing and quality control was done on the system to make sure it worked as planned and met the standards of the initial analysis.

During the implementation process, real-world users (the students) were introduced to the system. They were given training and support to make sure they could use it easily. User feedback was very important for making the system easier to use and fixing any problems that came up.

Lastly, in the evaluation process, things like how fast people could register, how accurate the data was, and how engaged the users were all looked at. User feedback was very helpful in figuring out how well the system worked and where it could be improved. Using the ADDIE model made sure that the development process was thorough and well-organized.

3. RESULTS

After utilizing it successfully for a semester, the CoSA Club Management System has made a big difference in the COSa. Putting in place the system has not only made it easier for members to sign up, but it has also made it much easier to manage all the club's operations. The results show that the method works to improve how the club works and how involved its members are.

Making it easy for members to sign up has been made easy by the CoSA Club Management System all term. With no more paper forms to fill out and an easy-to-use online registration system,



it's now very easy for new people to join the club. The number of members has grown significantly because it is now very easy for more students in the Diploma in Computer Science program to sign up. The system's ability to collect specific information about members has also given CoSA useful information about member demographics and tastes. This has helped the organization make its activities and events more relevant to its members' interests. Overall, the method has made the club easier to get into, more open to everyone, and more fun.

In addition, the system has made it much easier to manage CoSA's operations. This has made it easier and faster for the club to run workshops, seminars, and other events by automating event planning and registration. Because the system can keep track of event information like venues, dates, and responsible people, mistakes and missed opportunities have gone down. Better event management has made programs run more smoothly and more successful. In turn, these well-run events have made members more involved and happier, which has made the Computer Science Club at UiTM Sabah livelier and busier. Finally, the CoSA Club Management System's results for a semester make it clear that it can improve member engagement and make club activities run more smoothly, creating a more active and productive club environment.

3. CONCLUSION

The CoSA Club Management System, created through the ADDIE model, has brought substantial improvements to member registration and activity management for UiTM Sabah's Diploma in Computer Science students. It has streamlined processes, enhancing engagement and satisfaction.

To further enhance the system, transitioning to a web-based platform is the next step, ensuring broader accessibility. Continuous refinements and additional features will keep the system aligned with evolving needs and expectations, making it a dynamic tool for a more vibrant and efficiently managed club environment.

REFERENCES

Laudon, K. C., & Laudon, J. P. (2018). Management information systems: Managing the digital firm (15th ed.). Pearson.

O'Brien, J. A., & Marakas, G. M. (2018). Management information systems (10th ed.). McGraw-Hill Education.