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## IMPLEMENTATION OF THE REGISTRATION AND EVALUATION PROCESS OF COMPLEMENTARY ACTIVITIES

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**Abstract:** The objective of this project is to support students who carry out complementary activities by registering directly on the platform, without having to go to each department involved. The project is generated due to the need of the areas responsible to adequately coordinate complementary credit activities. Currently, the process is carried out directly in each area and manually, causing lack of control and communication problems, because students frequently lose their documents (certificates) and the departments have to generate them again. This causes administrative problems such as long waiting lists and delays in the delivery of proof of compliance with said activity.

For this reason, an automated system was implemented for the registration of complementary activities, which allows the student to access the website, review which complementary activities are authorized, register for the one that is most attractive, according to their availability. schedule and without the need to go in person to the respective department, which also allows constant monitoring. Additionally, the certificate is issued through the website at the time of accreditation of the activity and can be downloaded at any time. It facilitates the work of administrators through a better record of the complementary activities carried out by students, obtaining, digitally and in real time, the list of the workshops offered, the list of students who have already released the workshops and the necessary statistical information for reporting indicators.

**Keywords:** Credits, Activities, System.

## INTRODUCTION

The processes in companies have evolved with the application of computing, because users begin to adopt new technologies in the development of Web systems, which generate responses to an indefinite number of people and allow obtaining appropriate solutions for each of them. their processes.

The Cuautla Technological Institute offers a comprehensive education, for which it carries out various processes. One of them is complementary activities, with which it aims to complement the training of students and develop in them various types of professional skills. Complementary activities can be: tutoring, extracurricular activities, research projects, integrative project, participation in academic events, work productivity, entrepreneurship, promotion of reading, construction of prototypes, technological development, environmental conservation, participation in editions, promotion to culture, and/or those others that the institution considers. (TecNM, 2015).

Currently, the departments involved in this process carry it out manually, which means that the student sometimes does not find out about all the workshops that are being offered and does not register because he or she does not find one of interest, failing to comply with the activity in a timely manner. Taking into account the above, this project was developed, trying to facilitate the process for students, since through the application they will be able to find out the registration dates for the open workshops. The application will generate safe, specific, timely and reliable information for all the areas involved, as it will allow them to publish all the information related to the workshops offered in the semester, such as the place, teacher, schedule, etc., students will be able to make your registration without going in person and having all the information. They may also generate the certificate for

the student to download and have evidence of having completed their complementary activity.

## ANTECEDENTS

Higher education is facing very important challenges in the teaching-learning process, one of them is the accessibility of educational resources. Information and Communication Technologies (ICT) play an important role in this process, by contributing to the accessibility of educational resources that a student can consult in the construction of knowledge. (Chalen Ortega, Ramírez Pérez, & Cañizares González, 2021).

In a study carried out with 400 MSMEs in Aguas Calientes (Mexico), Maldonado et al. (2010) find that the use of ICT positively influences the factors considered in the 4 performance models proposed by Quinn and Rohrbaugh (1983), especially in the rational model; Likewise, they verify a positive impact on the global performance of companies. Nakata et al. (2008) conclude, in their study carried out in 189 strategic business units from various regions of the United States, that ICT indirectly influences business performance through strengthening customer management.

The study developed by Melville et al. (2004) shows that technology is of great value for the organization, but highlights that the scope and dimensions of its impact depend largely on internal and external factors, such as the complementary resources of the organization, and business partners., as well as the situation of the company's competitive environment. Ray, Muhanna and Barney (2005), in their empirical study, find that the use of information technologies affects the cost and quality of customer-related processes, and therefore the performance of the organization; In this sense, the authors mention that the effect of ICT will arise from

additional aspects such as diffusion, the degree of use and investment, etc. (Gálvez Albarracín, Riascos Erazo, & Contreras Palacios, 2014).

## OBJECTIVE

Implement an application for the complementary integration system which serves to manage the control of the processes of complementary activities for the students and administrators in charge of the Technological Institute of Cuautla.

## METHODOLOGY

For the design of the website, an applied research was carried out, in which surveys were applied to the students through a Google form, to subsequently analyze the results, which provided acceptable information for the implementation of the system. The method used for the development of the system was the software development life cycle, which consists of several phases. With the application of this methodology, the search for the requirements of the application was made, subsequently the design and programming was carried out and then proceeded with the implementation and testing of the system that has a friendly interface for administrators and users, generating secure information., specific, timely and reliable to the areas involved.

For the implementation of the Web application, several technologies were used, some of them are shown below:

TECHNOLOGIES	
PHP	AJAX
JavaScript	JQuery
JSON	XAMPP
HTML	MySQL
CCS	

Fig.1.- Technologies that were used.

## RESULTS

Below are some figures of the result obtained with the implementation of the “Complementary Integration System” project, which has the logos of the National Technology of Mexico and the Cuautla Technological Institute, in the upper left part and, in the upper part On the right, there is the Login button. When you press the start button, it shows the login, which will give access to the platform. You only need to have the user’s email and password.

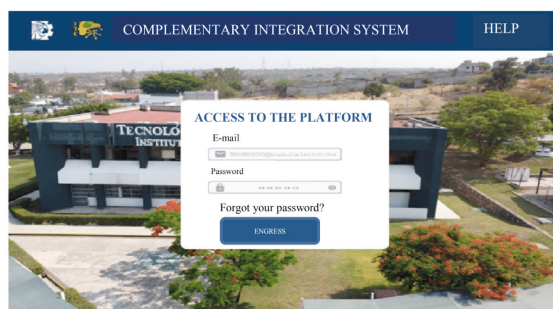


Fig. 2.- Login.

Once the session has started, the system takes the corresponding user, whether administrator or student, to the welcome window, showing the menu or header, which is the part of the header with the sections that the system has.

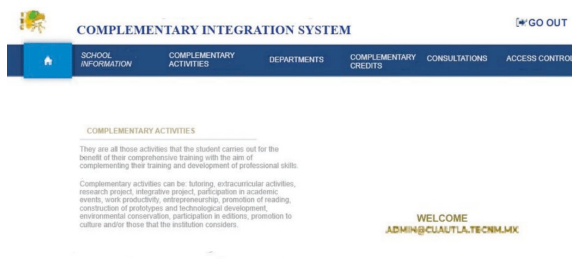


Fig. 3.- Welcome Administrator.

In the school information part, the student’s data will be displayed, such as name, control number, major, and the semester in which they are enrolled.



Fig. 4.- School Information.

In the activity history, the progress of each student in the chosen complementary activities will be shown, later the administrator will be able to edit the status in which they are (Yellow Button).



Fig. 5.- List of available Extracurricular Activities.

The complementary activities section presents three sections: the first shows the student the complementary activities that are available and allows them to select those in which they wish to participate.

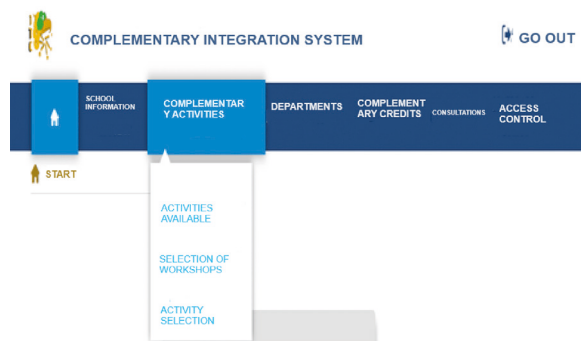


Figure 6.- Complementary activities.

The administrator will be able to register and cancel the activities that the student can view. You can also add more activities by pressing the green “add” button.



Fig. 7.- Add complementary activities.

The workshop selection part also shows a table where, by pressing the select button, the workshop that the student wishes to take is chosen.

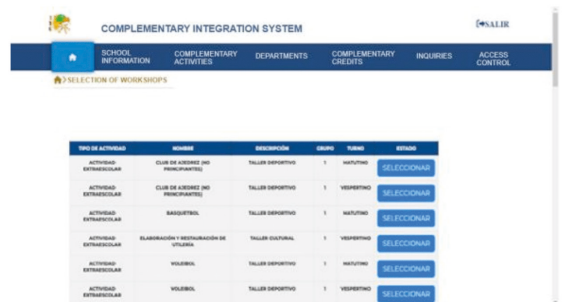


Figura 8.- Selección de talleres.

## CONCLUSIONS

The project provides a solid Web page, which allows managing the registration of the complementary activities that are processed in the departments in a more agile way, both for the administrators and for the students of the Technological Institute of Cuautla, since it allows carrying out the activities and necessary procedures related to this activity in a more effective, reliable and timely manner, avoiding delays in the information while making it available to all those involved in the process. Hence the importance of the use of technology, since Web applications are important and

useful, because they allow us to streamline processes that automate, process, convert and manipulate information according to our needs, generating a competitive advantage

with respect to management. of traditional systems, where these processes are slower and more likely to lead to errors.

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