# WEB-BASED ONLINE ELECTION SYSTEM FOR COLLEGE STUDENT ORGANIZATION USING BLOCKCHAIN TECHNOLOGY

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**ABSTRACT -** This capstone project focused on the design of a next generation online voting system based on Blockchain technology, to strengthen the electoral needs of universities and colleges. The issue with the current election in some colleges here in the Philippines is performed in a traditional way, counting the votes manually, that is prone to data tampering, fraud, and data lost, even though there's an existing electronic voting system it is not sufficient. The researchers aimed to develop a web-based electronic voting system, which provides a secure and flexible voting mechanism to solve the problem of voter votes, hacking, and destroying systems. The researchers conducted a survey in some universities and colleges and some hackers to test the legitimacy of the system. The respondents evaluate the system through the use of survey questionnaires and finally proven and justified through the respondents' feedback with a positive result. Blockchain based voting system proved that a computerized solution is possible with elimination of human related faults. Votes should be impossible to tamper and illegitimate votes should not be counted. All vote counting may be performed publicly and observable way. The system will have the record of all votes in a public ledger and these votes will be verified, executed, and shared among participating parties. Once the information has been entered, it can never be erased. If someone will try to nullify the votes, it will never be valid. Therefore, Blockchain based voting system can increase the security of the ballot privacy, speed up the processing of results in real-time and make voting easier. And it is possible to build an open, and verifiable voting system. The study addressed the security requirements and maintained election procedures with confidentiality, integrity and availability.

**KEYWORDS** - Blockchain, Public Ledger, Cryptography, College and Universities, e-voting, hashing

# KRAMS: AN IMPLEMENTATION OF KEY RESULT AREAS MONITORING SYSTEM FOR THE COLLEGE DIVISION (ACADEMICS) OF SOUTHVILLE INTERNATIONAL SCHOOL AND COLLEGES

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**ABSTRACT** - In the Information Age, Key Result Areas (KRAs) are commonly used for business performance measurement to monitor and improve the organization in a competitive way. It is important to have defined KRAs that are correlated with all the departments, for the executives to make evaluations from a whole group point of view, and the unique KRAs for specific strategies and goals of each department (Shen, 2013). Since KRAs are an important aspect of an organization, it should be delivered timely and analyzed in an in-depth manner through a straightforward presentation of data. Analytics deliver insights that allow organizations to make better business decisions. Through automated KRAs, an organization can capture the most updated data as soon as the data is inserted into the system's database. The study, positioned at an institutional level, will be the starting point of the development for an inter-institutional KRA monitoring system that will collate all data in real-time. As the title of the study indicates, the focus of this study is a monitoring system for the College Division for Academics of SISC. As a solution to the resource inefficient manual process of creating a final report that is the summarization of all data from different sections of the institution, this study aims to develop and implement a web-based monitoring system that is time-efficient and business-effective and is aligned with the goals and strategies of the institution. Through various interviews and continuous development, an interlaced data structure with a user-friendly interface for the end-users to input and analyze data was created.

**KEYWORDS** -  KRA, monitoring system, process improvement

# PROJECT DOTS (DOCUMENT TRACKING SYSTEM): ITS EFFECTS IN THE INTER-OFFICES IN THE SCHOOLS DIVISION OF PARAÑAQUE CITY

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**ABSTRACT** - Document management has become a visible solution in any organizations. This assumption has enthused researchers to pay attention in developing document management system as part of technological emergence in the 21st Century. The current study is the development of an online system called Document Tracking System (DoTS), which is adopted in the 12 inter-offices in the Schools Division of Paranaque City (SDO – Paranaque City). The objective of the study was to create a tracking system in the SDO – Parañaque City to help the inter-offices effectively manage documents. Its enabling objective is to create a ticket that could be used to tag user and online monitoring mechanism that allows the tagged user to view the ticket for faster compliance. In introducing DoTS in the SDO – Parañaque City, brainstorming, interview of the different users with regard to the document processes they do, and an orientation and training of users on how to use DoTS as part of their function in their offices. A 13-item questionnaire was administered to 79 respondents after few months of employment of the DoTS in the inter-offices. Informal interview was done after having collected the questionnaires to employ probing technique to deepen the responses of the users. Findings revealed that negative reactions for some users were evident during the orientation and training stage of DoTS; on the other hand, after having experienced using DoTS, positive effects on their performances were manifested. Furthermore, some findings suggest that the employment of DoTS in the inter-offices in the SDO – Parañaque City has improved the document management processes. Thus, majority of the users were convinced that apparent improvement was evident as it is seen the analytics of DoTS as one of its significant features. As far as the objectives of the study were concerned, the study's enabling objectives were successfully achieved as seen from the data culled from the responses of the 79 DoTS users extracted from the administered questionnaire. It is recommended that DoTS could level up its usability down to the 42 public schools both from elementary and secondary levels under the jurisdiction of the SDO – Paranaque to make document management system effective and efficient.

**KEYWORDS** - document management, Parañaque City, tracking system, process improvement, DepEd

# WEB-BASED RECORD SYSTEM FOR SOUTHVILLE INTERNATIONAL SCHOOL AND COLLEGES COLLEGE OF PSYCHOLOGY

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For the College of Psychology to achieve the aims of its curriculum, there needs to be an accurate or timely monitoring of the student's progress. The student's progress is tracked through his or her student reports. Thus, producing these reports in an efficient and productive manner is essential to the accomplishment of the department's goals. This research aimed to produce a Web-Based Record System for the College of Psychology that can address the need of the department of the College of Psychology for a secure, reliable, and convenient way of managing, storing and retrieving records for making decisions and producing actionable information from generated reports. Based on the results of the operational, technological, economic and schedule feasibility analysis, the system was able to resolve the critical problems of the department. The researcher was able to develop a secure database that can store the records of all the important and relevant items (e.g. 201 files, event waivers, thesis titles and abstracts), a web application that can save new records and search through all of the existing records, and a system that can produce a comprehensive report of a student, and reports regarding the state of the college's students.

**KEYWORDS -** student progress, tracking, report generation

# FIRST AID MOBILE APPLICATION

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**ABSTRACT** - The creation of the application was to achieve a way to deliver adequate knowledge to people for handling without professional help on the site of an accident or an emergency. Most people are usually not knowledgeable in what to do in first aid situations, and that is because nobody has had easy access to the necessary information it requires. The aim of the study is to create an application that gives awareness and knowledge to people on the various methods and practices on first aid care. Giving the people ways or the means to help people in need instead of waiting for help to arrive. Based on statistics conducted on 2010 St John's Ambulance, London Nearly 2/3 (59%) of people would not feel comfortable saving a life, 1/4 (24%) Would do nothing and wait for an ambulance to arrive or wait for someone else knows how to administer first aid and over 1/4 (28%) say that they would know what first aid procedures to do – but the people involved usually lack in confidence, as the polls show that a lot would do wrong things that could even potentially make the situation worse. The researcher was able to develop an application with the first aid registry of all the newer first aid procedures all certified by Red Cross Philippines to give access to everyone on what to do to administer first aid procedures.

**KEYWORDS -** first aid, mobile application, procedures, Red Cross

# THE EFFECTIVENESS OF THE YOUTH INTERNET GOVERNANCE FORUM IN INCREASING THE LEVEL OF AWARENESS OF PARTICIPATING STUDENTS AT SOUTHVILLE INTERNATIONAL SCHOOL AND COLLEGES IN INTERNET GOVERNANCE

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 **ABSTRACT** - Since its inception in 2005, Internet Governance (IG) creates an environment of discussions and consensus among different stakeholders which impacts in shaping the evolution and use of the Internet. Awareness have been a key ingredient in the initial step in fulfilling the objectives that lies within the issues in IG. Not a lot of people are aware of the term but familiar with the issues and subject matters in the IG sphere specifically the youth sector in the Philippines. The Youth Internet Governance Forum (yIGF) is a youth-driven initiative by NetMission Ambassadors geared in providing a platform for the youth to model the actual multi-stakeholder discussion. This allows participants to specifically know the different activities and mimic decisions on critical issues surrounding the utilization of the Internet. The study determines the IG awareness of students, more specifically in the Bachelor of Science in Information Technology program of Southville International School and Collleges, who will be participating both the 2016 Taipei and 2017 Bangkok editions of yIGF through a pre-event survey based on the instrument used during SEEDIG 2016. The same survey was conducted after the event commenced to determine if there was an improvement on the awareness of Internet Governance and its issues and activities. The study showed that yIGF had a hand in providing and promoting awareness to the youth who had particularly limited to no knowledge of the concepts and issues surrounding IG using simulations from the actual methods and activities conducted in the actual fora.

**KEYWORDS** - internet governance, youth, forum, awareness, Philippines

# THE READINESS OF THE PHILIPPINE INFORMATION TECHNOLOGY INDUSTRY TO ADAPT A TELECOMMUTING ENVIRONMENT

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**ABSTRACT** - Telecommuting or telework has become a common practice for many other nations, especially in their respective Information Technology (IT) Industries. It has shown many different advantages and disadvantages. Proper planning is then a critical point when it comes to adapting telecommuting policies and applying them in the Philippine Information Technology Industry. As such, this study attempts to look into the current implementation of telework in 5 different companies from the perspective of its employees and provides a summary of how prepared IT companies in the Philippines are to adopt telecommuting practices.

**KEYWORDS** – Telecommuting, telework, Philippine Information Technology Industry

# PROPOSED MULTI-PLATFORM PURCHASE ORDERING SYSTEM FOR COMPANY A

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**ABSTRACT** - Most companies at present welcome automation in their processes for a more efficient and productive everyday operations. Company A is a business in Pasig City that produces and distributes flavors and fragrances. Flavors include chocolate flavors, strawberry flavors, among others. Meanwhile, fragrances include aromas such as lavender, rose water, among others.

The researchers conducted interviews and surveys in the company in order to identify the problems being encountered in their existing business process. The existing purchase order system of the company is done manually. There is no existing standard process when it comes to processing their purchase order slip.

The Rapid Application Development (RAD) was used in the development of the system. RAD provides the abilities to quickly develop an application or a system and to make configurations when needed without leading to an iterative development environment.

The researchers were able to design a proposed multi-platform purchase ordering system for Company A. The system is a desktop application which can be accessed via mobile interface both Android and iOS. Customers will be able to track the progress of their order and get notification in real time via GPS. Issuing of the receipt can also be done using the application. The desktop application also provides the company with the comprehensive reports of all the orders that were processed. The proposed system is more efficient for both the company and the customers.

**KEYWORDS** - Purchase Ordering System, Rapid Application Development, Mobile Application, Automation