# Voting system

[Politics](#)

CHAPTER I INTRODUCTION 1. 1 B ACKGROUND OF THE STUDY Students' Union is asked to work beyond its capacity. It would be useful to have a voting (democratic) system to ensure that the Student Council's rulings are not lost in an overload of demands and those students ' union workload priorities match student priorities. One of the most crucial factors for a voting system to be successful is to exhibit a Voting Protocol that can prevent opportunities for fraud or for sacrificing the voter's privacy.

The Voting Protocol that will be designed and implemented for this voting system will combine the advantages of existing protocols and techniques, while at the same time it will aim at eliminating most of the identified deficiencies and problems. The voting system includes three actors: Voter, the voting system's operator, and the administrator. Eligible voters have to register themselves, assisted by the Administrator, before the " election day".

The system ensures that only registered voters can vote and vote only once on the election's day, and collects the cast votes and tally the results of the election. Voter privacy is somehow maintained and vote tampering is prevented in this system. 1. 1. Historical background Since the San Miguel National High School started to elect their SSG officers, they have been using manual voting system, where they have to use more time just to prepare the materials for the election.

The election will start by posting the list of name of the candidates, giving the exact number of sample ballots in every class rooms, and disposing one ballot box in each class rooms. The San Miguel National High School always elect officers every 3rd week of February for every year just to ensure that

there will be someone to watch the students during the vacation. 1. 1. 1 Organizational Chart See Appendix A 1. 1. 3 Organizational Function President-the highest-ranking member of an organization

Vice President-an official rank below a president, who can take the president's place if necessary. Secretary-somebody elected or appointed to keep records of the meetings of an organization such as a club, society, or committee, and to write or answer letters on its behalf. Treasurer-somebody who manages the finances of an organization, usually the chief financial officers. Auditor-somebody who checks accounts or conducts an audit of an organization.

PIO -somebody who make sure that the public, the media and every organization involved in the crisis are constantly informed on the progress being made to resolve the emergency at hand. Project Manager-somebody who matches available resources (time, moneyand people) against business project aims Sergeant at Arms-somebody appointed to keep order within an organization such as a legislative body or court of law, and to perform various other duties such as making arrest. Representatives-somebody who speaks, acts, or votes on behalf of others. 1. 2 Objectives of the study 1. 2. 1 General objective of the study To create an automated voting system for San Miguel National High School, to promote student use oftechnologyin the election process for the school's Student Council, thus making their digital inclusion possible and viable, and to show that technology can facilitate the student participation in school life and prepare them to become conscious and responsible citizens of the greater society. 1. 2. 2 Specific objective of the study * To lessen the time consume during the student council system. *

To permit only eligible voters to vote and ensure that each eligible voter can vote only once. To reduce the manual procedure of task and to prevent human error for someone to prepare the election each year. * The system should allow and assist voters to cast their votes quickly, in one session, and with minimal equipment or special skills. 1. 3 SCOPE AND DELIMITATION This proposed system is designed to provide fast and accurate student's council election of San Miguel National High School. This voting system is capable in storing voter's registration as well as calculates their votes for finalizing the winners of the election. All computations during the election are done in a reasonable amount of time.

It will also provide a printed result of the election. 1. 4 Significance of the study` An election is a decision-making process by which a population chooses an individual to hold formal office. Elections rely heavily on manual tallying and canvassing of votes thus making them vulnerable to control and manipulation. To ensure a credible and transparent electoral process, the modernization of the electoral system through computerization shall be supported to ensure the credibility of polls and correct the deficiencies in the electoral system.

It is extremely fast, allowing obtaining final results in a matter of minutes. It has a very complete and user-friendly interface for system operators and as well as the voters. Furthermore, the challenge is to develop the student's appreciation of their vote as a means to reform the administration and receive better services from it. This type of voting system encourages the student's to promote suffrage. 1. 5 Summary of the study `The proposed

system will lessen their effort and time in reading, storing, and calculating of the students' votes.

It will be easier for COMELEC officer to conduct election in their school. It will provide accurate result of voting and fast type of automated election for the student council in San Miguel National High School. CHAPTER II CONCEPTUAL FRAMEWORK 2. 1 Theories used in analyzing the system The current voting management in student's council election is manual, thus resulting in time consuming on part of the electoral officer. Everything need to be done on paper. All files are on the envelope and transferring of files needs an effort of the electoral officers. We are now in age of the echnology. We should be able to use technology to a much greater extent it is in the current manual system. This encourage the proponents to conduct aninterview, research and study to have an idea in making a system that can be used to easily store, calculate and finalized the result of automated election without the effort of election officer and the voters. The researchers finally come up with the Student Council Voting System which provides the LAN links to transfer and transmit the data of votes with high security and accuracy. 2. 2 Review of related studies Based on what Alecks P.

Pabico said, " Six years ago, the idea of automated elections for student council posts in the University of the Philippines in Diliman was unimaginable, at least for me. It wasn't necessarily because we couldn't muster the technology and logistics, but there was simply neither a need nor a clamor for paperless voting. A lot of things have changed since then, and automated elections are no longer a thing of the past in UP Diliman. Now on its second year, and notwithstanding minor glitches in the system, electronic

voting has proven to be a worthy improvement in one of the basic democratic processes in modern society.

Alecks got to UP a little past 2 p. m. last February 24, the day of the student council election this year. As a registered graduate student, he had made sure to drop by the campus to cast votes, first time to participate in the automated system on a university-wide scale. There was already a long queue outside the designated voting center at the College of Arts and Letters. Some students were waiting for their names to be located on the list, while others were waiting for their turn at the computer terminals. There were no paper ballots or ballot boxes in sight. " 2. 3 Findings on related studies and theories According to Alecks P.

Pabico (a writer of the investigate Reporting Magazine), for the more important aspects of the electoral process from voter registration, voting, vote counting to canvassing – touches of modernity have been an elusive as replies with substance from candidates. Yet for the most part the problem stems not from a lack of available technological solutions. A comprehensive computerized voting system encompassed the three major phases of the elections; registration, voting and tabulation. Pilot tested in council elections in universities, it has proven to be an effective safe-guard against fraud and manipulation like dag-dag –bawas. . 4 Terms Adopted in the Study 2. 4. 1Technical terms Automated election system - a system using appropriate technology for voting and electronic devices to count votes and canvass/consolidate results. Computer literacy-defined as the knowledge and ability to use computers and technology efficiently. Data - a collection of facts, figures, and statistics related to an object. Database - a collection of

related or similar records that are mostly used together. Data security - the means of ensuring that data is kept safe fromcorruption and that access to it is suitably controlled.

Existing system- a system that is currently being used by the institution. Networking- the act of working using computer network or the act of connecting computers into network. System design- the process or art of defining the architecture, components, modules, interfaces, and data for a system to satisfy specified requirements. User friendly-a system that is easy to learn and to use. 2. 4. 2 Operational terms Automation- the automatic operation or control of equipment, a process, or a system. Election - is a formal decision-making process by which a population chooses an individual to hold public office.

Input - the term denoting either an entrance or changes which are inserted into a system and which activate/modify a process. Output - the term denoting either an exit or changes which exit a system and which activate/modify a process. Registration- the act of registering or being registered. CHAPTER III ARCHITECTURIAL DESIGN 3. 1 The Existing System The existing system of San Miguel National High School when having a Student Supreme Government (SSG) election, all transactions like voters' registration and voting, is done manually. The election is held during the 3rd week of February for every year.

To be one of the candidates for the election the student must have a grade of at least 85% and above. The student who is running for president must be a 3rd year student. During the election, the SMNHS' COMELEC will prepare a sample ballots and a ballot box for each class room. To vote, the students

have to write the names of the candidates for every position that they want to elect. For the validation of votes, every student will have to put thumb marks on the sample ballots. After the election, the COMELEC, along with the SSG adviser, will count the votes one by one in front of the entire student. . 1. 1 Data Flow Diagram See appendix B 3. 2 Problem Identifications of the Existing System This section presents all the problems identified by the researchers after gathering all data by means of interviewing the SSG Adviser of San Miguel National High School. 3. 2. 1 Presentation of the Problems The following are the problems identified by the researcher based on the gathered data. 3. 2. 1 . 1The process of counting the votes one by one is kind of time consuming process. 3. 2. 1 . 2The votes cannot be secured or can be falsifies. 3. 2. 1. The writing of the student may not be clear. 3. 2. 1. 4The COMELEC officers disregard the student that did not vote. 3. 3 The Proposed System 3. 3. 1 Needs for the System The system needs maintenance to maintain the security, accuracy and the capacity of the system. 3. 3. 2 Data Flow Diagram of the Proposed System See Appendix C 3. 4 Objectives of the Proposed System To help the School especially the San Miguel National High School to their manually voting of their organization (SSG). 3. 4. 1 General Objective of the proposed System To create an automated voting system for the San Miguel National High School. 3. 4. 2 Specific Objective of the proposed System 3. 4. 3. 1 The system functionality should ensure that no one can falsify or modify the result of the voting by eliminating a valid vote or counting an invalid vote in the final tally. 3. 4. 3. 2 A system that provides a log-on security to secure the votes and to ensure that only authorized person can access the system. 3. 4. 3. 3 The system that permits only eligible voters to vote and ensure that each eligible voter

can vote only once. 3. 4. 3. To ensure that no one can duplicate his or someone else's vote and no one can change someone else's vote. 3. 4 Users of the System The SMNHS Student Council Voting System is intended for the use of San Miguel National High School's student, SSG president and COMELEC officers. It will help the COMELEC Officers to register students, prepare the election, and calculating the votes. It will lessen the time they consumed conducting a student council election. It will lessen the effort of the SSG president and COMELEC officers preparing and distributing the sample ballots and ballot boxes to each room. 3. Environmentof the Usage System The following are activities that can be done by the use of the new system: 3. 6. 1 The system accept data inputs to create student records such as their student number, name, address, age, gender, year and section. 3. 6. 2Lessen the time consumed during the counting of votes. 3. 6. 3 Student who has already voted cannot vote again. 3. 6. 4Automatically prints the result of election. 3. 6. 5 Administrator is the only person to access the system. 3. 7 Components of the Proposed System 3. 7. 1 General features of the Proposed System The general features of the proposed system are the following: 3. . 1. 1 Menu Driven –pertaining to software that makes extensive use of menus to enable users to choose alternatives and guide program operations. 3. 7. 1. 2Help Facilities–in which offer the users to support in the learningprocess. 3. 7. 1. 3 User Friendly-it provides user friendly features that will help the user to interact easily in manipulating the system. 3. 7. 1. 4 Reliability –the system performs specific task correctly to support the transaction entered. 3. 7. 1. 5 Security –it will include password to ensure that unauthorized user cannot read or use the data to make sure that the ystem files are safe in unnecessary information and for the privacy of

counting of voting. 3. 5. 3 Functions of the System 3. 5. 4. 5 Visual Table of Content – Program Level See Appendix D 3. 5. 4. 6 Visual Table of Content – Module Level See Appendix E 3. 5. 4. 7 Visual Table of Content – System Level System Level PASSWORD 0 Main Module Menu 1. 0 Voting Menu 2. 1 Select 2. 2 Submit 2. 3 Exit 2. 0 Official Ballot 3. 4 Submit 3. 5 Back PASSWORD 0 Main Module Menu 1. 0 Admin Menu 2. 1 Add Voter 2. 2. 1 Generate Student's ID 2. 2. 2 Generate Password 2. 2. 3 Add Voter 2. 2. 4 View 2. . 5 Save 2. 2 Voters' list 2. 3. 6 Select 2. 3 Candidate list 2. 4. 7 Delete 2. 4 Search 2. 5. 8 Search by ID 2. 5. 9 Search by Name 2. 5 About 2. 6 View 2. 7. 10 Candidate list 2. 7 Application Form 1. 7. 1 Candidate Registration 2. 8 Report 2. 9. 11 Canvassing Report 2. 9. 12 Voters' Report 2. 9. 13 Section/Year Report 2. 9 Tool 2. 10. 14 Password 1. 10 Exit 3. 7. 3 Systems Inputs The following are the input of the system: 3. 7. 3. 1Password that contains a set of characters uses to log-in the Administrator for the system to operate (to register students and begin the voting). . 7. 3. 2 The students' number, name, address, age, year, and section. 3. 7. 3. 3The students' vote for every position. 3. 7. 4 System Outputs The following will be the output of the system: 3. 7. 4. 1 The system will produce the printed result of the election. 3. 7. 4. 2The list of the registered student who did not vote. 3. 7. 4. 3 The list of candidates in their selected position. 3. 7. 4. 4 The current status of the election 3. 7. 5 Input - Process - Output - Charts 3. 7. 5. 1 System IPO See Appendix F 3. 7. 6 Data Dictionary

A Data Dictionary of San Miguel National High School (SMNHS) Student Council Voting System Table Name| Attribute Name| Contents| Type| Format| Range| PK| Users| UserID| UserID| Autonumber| xxxxxx| N/A| PK| | Username|

Username| Text| xxxxxx| | | | Password| Password| Text| xxxxxx| | | Table Name| Attribute Name| Contents| Type| Format| Range| PK| Position| PositionID| PositionID| Autonumber| xxxxxx| N/A| PK| | Position| Position| Text| xxxxxx| | | Table Name| Attribute Name| Contents| Type| Format| Range| PK| Voters| VoterID| VoterID| Autonumber| xxxxxx| N/A| PK| | Username| Username| Text| xxxxxx| | | Password| Password| Text| xxxxxx| | | | Name| Name| Text| xxxxxx| | | | Year| Year| Text| xxxxxx| | | | Section| Section| Text| xxxxxx| | | | Voted| Voted| Text| xxxxxx| | | Table Name| Attribute Name| Contents| Type| Format| Range| PK| Candidates| CandidateID| CandidateID| Number| xxxxxx| N/A| K| | PositionID| PositionID| Number| xxxxxx| | | | Name| Last; First Name| Text| xxxxxx| | | | Year| Year| Number| xxxxxx| | | | Section| Section| Text| xxxxxx| | | | Photo| Photo/Image| OLE Object| . jpg/. png| | | | Votes| Votes| Number| xxxxxx| | | A Data Dictionary of San Miguel National High School Student Council Voting System Entity _____

Label: Voters Entry Type: Description: Alias: Values and Meanings: Input Data flow: Vote Output Data flow: Notes: Long Name: Registered Student _____ Label:

User Entry Type: Description: Alias: Values and Meanings: Input Data flow: Output Data flow: Notes: Long Name: Admin _____ A Data Dictionary of San Miguel National High School Student Council Voting System Elements _____

Default System: San Miguel National High SchoolStudent Council Voting System Label: Student's ID Type and Length: Source: Voter Registration Form/Candidate Registration Form Security: Admin Description and

Comment: Date: Alias: Default Value: Acceptable Value: UserResponsibility: Admin _____

_____ Default

System: San Miguel National High SchoolStudent Council Voting System Label: Student's Password Type and Length:

Source: Voter Registration Form/Candidate Registration Form Security: Admin Description and Comment: Date: Alias: Default Value: Acceptable Value:                        User                        Responsibility:                        Admin

_____

_____ Default

System: San Miguel National High SchoolStudent Council Voting System Label: First Name Type and Length: Source: Voter Registration Form/Candidate Registration Form Security: Admin Description and Comment: Date: Alias: Default Value: Acceptable Value: User Responsibility: Admin               _____

_____ Default

System: San Miguel National High SchoolStudent Council Voting System Label: Last Name Type and Length: Source: Voter Registration Form/Candidate Registration Form Security: Admin Description and Comment:       Date:       Alias:       Default       Value:       Acceptable       Value: -------------------------------------------------       User       Responsibility:       Admin

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Default System: San Miguel National High School Student Council Voting System Label: Year level

Type and Length: Source: Voter Registration Form/Candidate Registration Form Security: Admin Date: Alias: Default Value: Acceptable Value: User Responsibility:                                                                     Admin

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Default System: San Miguel National High SchoolStudent Council Voting System Label: Section Type and Length: Source: Voter Registration Form/Candidate Registration Form Security: Admin Description and Comment: Date: Alias: Default Value: Acceptable Value: -------------------------------------------------

User Responsibility: Admin 3. 5 Development Flowchart and Schedule 3. 8. 1 Gantt chart See Appendix G 3. 6. 4 System Flowchart See Appendix H 3. 6. 5 Program Flowchart See Appendix I CHAPTER IV DETAILED DESIGN 4. 1Standards and Conventions This chapter will explain the standard and convention used in design of the proposed system to ensure the uniformity throughout the system and to emphasize the system very well. 4. 1. 1 Design Methodology The proposal used the top-down programming approach as the design technique in the process of developing the simulation of the system.

This approach refers to a problem solving technique which involves in voting, analysis to the total of vote, design of the program or solution in terms of large objectives, designing the modules and subroutines needed in the program and finally writing the detailed code. 4. 1. 2 Program Naming and Convention A special name was given to all programs of every module in a way that it describes each subprogram in order to represent the function to

be performed. Names are related to each subprogram giving emphases on what each module is performing. This can be seen in the module specification section on this chapter. 4. 1. File Naming and Convention Each record of the student used in the program was classified with their student number so that the user can easily understand and can vote wisely for the running candidates. Each student who already voted is automatically save in the database of the system for validation of the processes performed by each subprogram. 4. 2 Module Specification This section discusses all information about modules of the proposed system. Name: System Password Purpose: To protect and secure the election to illegible voters Entry: Password Exit: Inputs: Valid Password Outputs: Main Menu Errors: Calls: Voting Menu

Called by: Remarks: Name: Voting Menu Purpose: To provide ballot form for the students Entry: Choice Exit: Choice Exit Inputs: Choice Outputs: Official Ballot Errors: Calls: 1. 1 Select, 1. 2 Submit, 1. 3 Exit Called by: 0 MAIN Menu Remarks: Name: Official Ballot Purpose: To show the list of elected candidates Entry: Choice Exit: Choice Exit Inputs: Choice Outputs: Your Choice Errors: Calls: 2. 1 Submit, 2. 2 Back Called by: Voting Menu Remarks: Name: System Password Purpose: To provide and secure votes to unauthorized person Entry: Choice Exit: Choice Exit Inputs: Choice Outputs: Admin Menu Errors: Calls: 2. 1 Submit, 2. 2 Back

Called by: 0 MAIN Menu Remarks: Name: Admin Menu Purpose: To display Admin Menu Entry: Choice Exit: Choice Exit Inputs: Choice Outputs: Your Choice Errors: Calls: 1. 1 Add Voter, 1. 2 Voters' List, 1. 3 Candidate List, 1. 4 Search, 1. 5 About, 1. 6 View, 1. 7 Application form, 1. 8 Report, 1. 9 Tool, 1.

10 Exit Called by: Voting Menu Remarks: Name: Add Voter Purpose: To Register new voter Entry: Choice Exit: Choice Exit Inputs: Choice Outputs: Your Choice Errors: Calls: 1. 1. 1Generate Student id, 1. 1. 2 Generate Student Password, 1. 1. 3 Add voter, 1. 1. 4 View, 1. 1. 5 Save Called by: Admin Menu Remarks: Name: Voters' List

Purpose: To View the list of voters and update voters' status Entry: Choice Exit: Choice Exit Inputs: Choice Outputs: Voter's Registration Form Errors: Calls: 2. 1 Select Called by: Admin Menu Remarks: Name: Candidate List Purpose: To View the list of candidates and delete former candidates Entry: Choice Exit: Choice Exit Inputs: Choice Outputs: Your Choice Errors: Calls: 1. 3. 1 Delete Called by: Admin Menu Remarks: Name: Search Purpose: Search the voters record Entry: Choice Exit: Choice Exit Inputs: Choice Outputs: Your Choice Errors: Calls: 1. 4. 1Search by ID, 1. 4. 2Search by Name Called by: Admin Menu Remarks: Name: About

Purpose: About the system and the Developers Entry: Choice Exit: Choice Exit Inputs: Outputs: Display information Errors: Calls: Called by: Admin Menu Remarks: Name: View Purpose: You can view the candidates list and voters list Entry: Choice Exit: Choice Exit Inputs: Choice Outputs: Display information Errors: Calls: 1. 6. 1 Candidate list Called by: Admin Menu Remarks: Name: Candidate list Purpose: You can view the candidates list Entry: Choice Exit: Choice Exit Inputs: Choice Outputs: Display information Errors: Calls: 1. 6. 1. 1 President List, 1. 6. 1. 2 V-President List, 1. 6. 1. 3 Secretary List, 1. 6. 1. 4 Treasurer List1. . 1. 5 Auditor List, 1. 6. 1. 6 PIO List1. 6. 1. 7 Project Manager List, 1. 6. 1. 8 Sergeant at Arms List1. 6. 1. 9 4th Yr. Representative List, 1. 6. 1. 10 3rd Yr. Representative 1. 6. 1. 11 2nd

Yr. Representative List, 1. 6. 1. 12 Gr. 7 Representative List Called by: Admin Menu Remarks: Name: Application Form Purpose: The Application Form of the candidates and voters Entry: Choice Exit: Choice Exit Inputs: Choice Outputs: Display information Errors: Calls: Called by: Admin Menu Remarks: Name: Candidate Registration Purpose: Display the registration form of the said position Entry: Choice Exit: Choice Exit Inputs: Choice

Outputs: Display information Errors: Calls: Called by: Admin Menu Remarks: Name: Report Purpose: The canvassing report and the candidate displayed Entry: Choice Exit: Choice Exit Inputs: Choice Outputs: Display information Errors: Calls: 1. 8. 1 Canvassing Report, 1. 8. 2 Voters' Report 1. 8. 3 Section/Year Report 1. 8. 4 Result Called by: Admin Menu Remarks: Name: Canvassing Report Purpose: To know the outstanding report of the candidates Entry: Choice Exit: Choice Exit Inputs: Choice Outputs: Display information Errors: Calls: 1. 8. 1. 1President Candidates, 1. 8. 1. 2 V-President Candidates, 1. 8. 1. 3 Secretary Candidates, 1. 8. 1. Treasurer Candidates 1. 8. 1. 5 Auditor Candidates, 1. 8. 1. 6 PIO Candidates 1. 8. 1. 7 Project Manager Candidates, 1. 8. 1. 7 Sergeant at Arms Candidates, 1. 8. 1. 8 4th Yr. Representative Candidates 1. 8. 1. 9 3rd Yr. Representative Candidates, 1. 8. 1. 10 2ndYr. Representative Candidate, 1. 8. 1. 11 Gr. 7 Representative Candidates Called by: Admin Menu Remarks: Name: Voters' Report Purpose: The numbers of voters who vote and who did not, and the total of votes Entry: Choice Exit: Choice Exit Inputs: Choice Outputs: Display information Errors: Calls: 1. 8. 2. 1Search, 1. 8. 2. 2 Refresh, 1. 8. 2. 3 Print Called by: Admin Menu

Remarks: Name: Section/Year Report Purpose: The numbers of registered voters Entry: Choice Exit: Choice Exit Inputs: Choice Outputs: Display information Errors: Calls: 1. 8. 3. 1Search, 1. 8. 3. 2 Refresh, 1. 8. 3. 3 Print Called by: Admin Menu Remarks: Name: Result Purpose: To display the result of the election Entry: Choice Exit: Choice Exit Inputs: Choice Outputs: Display information Errors: Calls: 1. 8. 4. 1 Refresh, 1. 8. 4. 2 Print Called by: Admin Menu Remarks: Name: Tool Purpose: Display the student password Entry: Choice Exit: Choice Exit Inputs: Choice Outputs: Display information Errors: Calls: 1. 1. 9. 1 Password Called by: Admin Menu

Remarks Name: Exit Purpose: Close the system if you want Entry: Choice Exit: Choice Exit Inputs: Choice Outputs: Display information Errors: Calls: Called by: Admin Menu Remarks: 4. 2 Module Specification MODULE: MAIN Menu This section calls the other modules or program. Mouse and menu driven may used to access each subprogram. MODULE: PASSWORD The module requires users' ID and a correct password. If the password is correct, the Voting Menu and Admin Menu that we used by only one module at a time will be automatically display. MODULE: VOTING MENU The module provides ballot form for the registered student to vote. MODULE: ADMIN MENU

The module provides menu for the admin to access, manage, maintain and secure files. DATA ENTRY For the Voting Menu the different option includes Select, Submit, and Exit. For the Admin Menu includes Generate, Add Voter, Save, View, Select, Delete, Find, and Print. OFFICIAL BALLOTS Show the candidates to be elected. APPLICATION FORM The module provides registration form for Voters and candidates. ABOUT Show information about the system. EXIT Close the Menus 4. 4 File Specification System: San Miguel

National High School Student Council Voting System Record Size: File Name: Student Council Voting System Storage Media: Disk

Table name: Candidate Organization: Index Field Name| Data Type| External Length| Candidate ID| AutoNumber| | PositionID| Text| | Name| Text| | Year| Number| | Section| Text| | Photo| OLE Object| | Votes| Number| | System: San Miguel National High School Student Council Voting System Record Size: File Name: Student Council Voting System Storage Media: Disk Table name: Position Organization: Index Field Name| Data Type| External Length| PositionID| Text| | Position| Text| | System: San Miguel National High School Student Council Voting System Record Size: File Name: Student Council Voting System Storage Media: Disk

Table name: Users Organization: Index Field Name| Data Type| External Length| UserID| AutoNumber| | Username| Text| | Password| Text| | System: San Miguel National High School Student Council Voting System Record Size: File Name: Student Council Voting System Storage Media: Disk Table name: Voters Organization: Index Field Name| Data Type| External Length| VoterID| AutoNumber| | Username| Text| | Password| Text| | Name| Text| | Year| Text| | Section| Text| | Voted| Text| | 4. 5 Screen Format See Appendix J. 4. 6 Report Format See Appendix K. 4. 7 Hardware Specification ITEMS| SPECIFICATIONS/BRAND| PRICE|

Computer Terminal| Compaq(Compaq435)- AMD-Windows 8 Pro-2 GB DDR Memory-500GB Hard Disk Drives-Less than 25 mm thin and 2. 5 kg light- ODD/HDD-A large volume hard disk and 8X DVD-Super Multi drive in a small form factor for massive storage and media usage-LAN/VGA Port-Multimedia Card- Optical disk access indicator-Kensington lock slot-802. 11 b/g/n Wi-Fi| P

20, 000. 00| Power Supply| | 29. 00| | | Total P20, 029. 00| 4. 8 Cost Benefit Analysis 4. 8. 1 Presentation of Cost 4. 8. 1. 1 Existing System Expense A. Supplies Expense Description| Unit Cost| Qty/Day| Qty/Year| Cost/Year| Ball pen| 10/pc| 50pcs. | 50pcs| 500. 00|

Bond Paper| 170/rim| 4 rim| 4 rim| 680. 00| Pentel Pen| 48/pc| 40pcs. | 40pcs| 1, 920. 00| Manila Paper| 5/pc| 15pcs. | 15pcs| 75. 00| Staple Wire| 10/box| 10box| 10pcs| 100. 00| Stapler| 150/pc| 10pcs| 10pcs| 1, 500. 00| Folder| 12/pc| 35pcs| 35pcs| 420. 00| Ballot Box (Carton)| 5/pc| 35pcs| 35pcs| 175. 00| Packing Tape| 45/pc| 10pcs| 10pcs| 450. 00| Printer| 3, 400/pc| 1pc| 1pc| 3, 400. 00| Pencil| 6/pc| 50pcs| 50| 300. 00| Ink| 300/set| 1set| 1set| 300. 00| Certification| 3/pc| 24pcs| 24pcs| 72. 00| Snacks (Teachers ; Comelec)| 100| 30pcs| 30pcs| 3, 000. 00| | | Total Supplies| Expense/yr| P 12, 892. 00| B. Electric Consumption

Hours/Day| Cost/Hour| Daily Rate| Cost/Year| 8| 36. 00| 288. 00| 288. 00| | Total Electric| Expense per Day| P288. 00| Total Existing System Expense P 13, 180. 00 C. Equipment Expense Quantity| Item| Price| 1| Power Supply| P 300. 00| 6| Printer Ink| 600. 00| Total Equipment Expense P 900. 00 D. Maintenance Expense Maintenance Fund Expense/Day| 0| Total Maintenance ExpenseP 0. 00| E. Computer Utilization Expense Software Package Cost Visual Basic 6. 0 Microsoft Access 2007| Total Software Costs P 5, 000. 00 F. Training/Seminar Expense 1 day Training/Seminar Expense| P 300. 00| | | Total System Expense P 6, 700. 0 4. 8. 2 Presentation of Benefits YOP| Cost| Future Value| Present Value| Acc. Present Value| 0| -6, 700. 00| | | | 1| | P 3, 000. 00| P 2, 800. 00| P 2, 800. 00| 2| | 4, 000. 00| 3, 780. 00| 6, 580. 00| 3| | 5, 000. 00| 4, 894. 00| 11, 474. 00| 4| | 6, 000. 00| 5, 132. 00| 16, 606. 00| 5|

| 7, 000. 00| 6, 356. 00| 22, 962. 00| Rate of Return (ROR) (E/C) - 1/nLet E = Earning C = Cost n = Number of days (P 22, 962 / P 6, 700) – 1/5 = (3. 4272) – 0. 2 = 3. 2272 or 0. 3227% Payback Period ( APV – C/ APV) + Previous YearLet Cost = 6, 700. 00 AVP = 16, 606. 00 Previous Year = 3 (16, 606. 00 – 6, 700. 00 / 16, 606. 00) + 3 = (0. 59653) + 3 = 3. 9 (3 years and 6 months) CHAPTER V IMPLEMENTATION 5. 1 Implementation Phase In this section, the proposal will discuss the activities that they have to vote in order to the flow of the system. It is included also the maintenance of the system in order to avoid the redundancy of the voting and to keep the good performance of the system for the student of using automated election. The implementation of this proposed system though conditions will also be presented to insure it accuracy, capability in reaching the intended target, effective for producing a desire voters in the election, integrity and to further check the errors. . 2 Program Specification The Visual Basic 6. 0 was used by the system to develop the software programs. Visual Basic 6. 0 offers a file handling performance needed by the system and it is integrated with Microsoft Access 2013 on which the proposed design the database management system. 5. 3 Program Testing After all the modules of the program have been finished, the proposed system test is to see if the output is performed very well for the satisfaction of the user and to avoid the errors that will occur during the election day.

Although the proposed system is simulation, the test showed that San Miguel National High School voting system performed the high standard, accuracy, and the reliability of the system. 5. 4 Security and Back Up plans The proposed system has own password for the intended user to protect the

system from unauthorized access information. This system also provides an option to create back –up copies of information on the system and place it in secured place outside of the company. Authorized personnel are responsible to keep the back –up files so the in the case of system loss, regeneration is possible. . 5 Maintenance Plan The back –up files should be made in order to maintain the system from possible loss of important data and damages programs. These files are most significant when unexpected hardwarefailureresults in damages program file and loss of data, so the user should at least make two (2) copies of all files every data processing for a better maintenance of the system. 5. 6 User Training In order to have an effective operation of the system, the proposed system suggest that the user should be trained on how to interest with the system to ensure the integrity of the system.

The training of the student to use the system is help by the intended administrator who knows the system. This Automated SSG election system is user friendly to ensure the success implementation. CHAPTER IV CONCLUSION AND RECOMMENDATION 6. 1 Conclusion As other School and establishments, San Miguel National High School together with their existing system, faced various problems. San Miguel National High School still utilizes the some manual procedure in preparing for their student council election.

We, the researchers formulated the objective of the study: To find out the flow and functionality of the present semi-automated system and likewise. Propose and present an automated Student Voting Council system to the sufficient and more lessen of preparing for the coming student election. To cope up with the problems, the researcher's initial step was to study and

conduct some interview to school (e. g. SSG Adviser, Officers, and Students). We analyzed the present system so as to locate the various limitations therein.

Observations were also done in order to find out the conditions and steps for the voting system. Elections rely heavily on manual tallying and canvassing of votes thus making them vulnerable to control and manipulate. To ensure a credible and transparent electoral process, the modernization of the electoral system through computerization shall be supported to ensure the credibility of polls and correct the deficiencies in the electoral system. To eliminate many ineffective features of the present system, the researcher come up with proposed system modeled basically to counter act the above limitations.

Some steps that made the process quit long eliminated as the automated program was sufficient enough. Computations were accomplished by the computer itself while files were kept in order and gathered with reliable security. The study revealed that utilizing computers will in the long run be financially beneficial to the School. Based on the findings and data gathered, the researchers have come up with the following conclusions: 1. The existing system of San Miguel National High School when having a Student Supreme Government (SSG) election, all transactions like voters' registration and voting, is done manually. . The existing system generates many problems such as redundant voters, time consuming, heavy workload (esp. SSG Adviser). And difficulty in updating and editing the files of the voters. 3. That there is need for an enhancement of their system due to the problem of their existing system, a new system is entirely required to the substitute the

present process that is quit inferior. Voting can be made available in the same day of election. The COMELEC will not be busy the week before the election to prepare all the ballot of every student.

The day of the Election they can easily print the winner of the election signed by SSG adviser. 4. That the new system would meet the limitations of the existing manual system. The proposed automated SSG voting council system is effective because the computation and manipulation of files are done by the computer, thus eliminating redundancy, voters records will be refrained these may be possibly eliminated. 5. The researchers also recommend this study to the students as a guide in doing the same study in other public or private purposes. 6. 2 Recommendations

The researchers recommend that the proposed system be implemented as to put an end may enormous work shouldered, by the voters in the COMELEC of San Miguel National High School. In implementing this system, the COMELEC can work harmoniously have more quality time spent for other tasks, and system will be freed from deficiencies. The researchers believed that the proposed system offers quality services without spending much time and effort. It is also recommended that the school comply with the requirements of the proposed system so that difficulties may be possibly eliminated.