

**CENTRALIZED REPOSITORY OF ACCREDITATION  
FILES IN THE COLLEGE OF ENGINEERING AND  
INFORMATION TECHNOLOGY**

**THESIS**

**JOHN CARLO A. DE CASTRO**

**College of Engineering and Information Technology**

**CAVITE STATE UNIVERSITY**

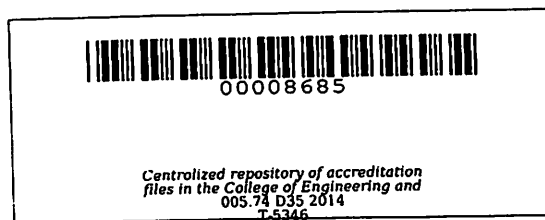
**Indang, Cavite**

**April 2014**

**CENTRALIZED REPOSITORY OF ACCREDITATION FILES  
IN THE COLLEGE OF ENGINEERING AND  
INFORMATION TECHNOLOGY**

**Undergraduate Thesis  
Submitted to the Faculty of the  
College of Engineering and Information Technology  
Cavite State University  
Indang, Cavite**

**In partial fulfilment  
of the requirements for the degree  
Bachelor of Science in Information Technology**



**JOHN CARLO A. ~~DE~~ CASTRO**

**April 2014**

## **ABSTRACT**

**DE CASTRO, JOHN CARLO A. Centralized Repository of Accreditation Files in the College of Engineering and Information Technology.** Undergraduate Thesis. Bachelor of Science in Information Technology. Cavite State University, Indang, Cavite. April 2014. Adviser: Ms. Aiza E. Bihis.

The study entitled “Centralized Repository of Accreditation Files in the College of Engineering and Information Technology” was approved last June 2013 and gathering of the necessary data started right after. The interview and survey was conducted in Cavite State University, College of Engineering and Information Technology (CEIT) and visit other school libraries to gather related studies. It was developed to design and develop a centralized repository for the accreditation files being used in the CEIT. The system consists of three modules. The first is the account management module where the authentication of users happens. Then, the document management module which includes the uploading, downloading, viewing and deleting of documents. Lastly is the log management module which is accountable for the generation of logs made by the users.

The proponent used the software development methodology as his methodology. This methodology is composed of different phases and these are the analyze / planning phase, breakdown priority project phase, design module phase, code – test / debug phase, integration of sub procedures phase and testing, integration with existing system phase that includes of twenty-one participants that serves as the respondents.

The system meets its objectives and is capable of handling documents through the computerized process of centralization since the system is able to recover once it failed to respond.

## TABLE OF CONTENTS

|                                         | Page |
|-----------------------------------------|------|
| BIOGRAPHICAL DATA .....                 | iii  |
| ACKNOWLEDGEMENT .....                   | iv   |
| ABSTRACT .....                          | v    |
| LIST OF TABLES.....                     | ix   |
| LIST OF FIGURES .....                   | x    |
| LIST OF APPENDIX TABLES .....           | xi   |
| LIST OF APPENDIX FIGURES .....          | xii  |
| LIST OF APPENDICES.....                 | xiv  |
| INTRODUCTION .....                      | 1    |
| Statement of the Problem .....          | 2    |
| Objectives of the Study .....           | 3    |
| Significance of the Study .....         | 3    |
| Time and Place of the Study .....       | 4    |
| Scope and Limitation of the Study ..... | 5    |
| Theoretical Framework .....             | 8    |
| Definition of Terms .....               | 11   |

**REVIEW OF RELATED LITERATURE ..... 13**

**METHODOLOGY .....18**

Materials ..... 18

Methodology .....18

    Analyze/Planning.....19

    Breakdown Priority Project .....19

    Design Module.....20

    Code Test/Debug .....20

    Integration of Sub Procedure and Testing .....20

    Integration of Existing System .....21

**RESULTS AND DISCUSSION .....22**

Results.....22

Discussion.....27

**SUMMARY, CONCLUSION AND RECOMMENDATION.....33**

Summary.....33

Conclusion .....33

Recommendation .....34

REFERENCES .....35

APPENDICES .....36

## LIST OF TABLES

| Table |                                                                           | Page |
|-------|---------------------------------------------------------------------------|------|
| 1     | The scale used to evaluate the software based on the given criteria ..... | 22   |
| 2     | Assessment of the software in terms of functionality .....                | 23   |
| 3     | Assessment of the software in terms of reliability .....                  | 23   |
| 4     | Assessment of the software in terms of usability .....                    | 24   |
| 5     | Assessment of the software in terms of efficiency .....                   | 25   |
| 6     | Assessment of the software in terms of maintainability .....              | 25   |
| 7     | Assessment of the software in terms of portability .....                  | 26   |
| 8     | Assessment of the software in terms of criteria of the system .....       | 27   |

## LIST OF FIGURES

| <b>Figure</b> |                                                                                                                                        | <b>Page</b> |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 1             | Theoretical framework for centralized repository of accreditation files in the college of engineering and information technology ..... | 8           |
| 2             | Software development methodology.....                                                                                                  | 19          |
| 3             | Login page of the system for the instructors and administrator .....                                                                   | 29          |
| 4             | Access ID verification of the system for the instructors .....                                                                         | 30          |
| 5             | Completion of registration of the system for the instructors.....                                                                      | 30          |
| 6             | Uploading of file on a specific area and program .....                                                                                 | 31          |

## LIST OF APPENDIX TABLE

| <b>Appendix<br/>Table</b> |                                                                 | <b>Page</b> |
|---------------------------|-----------------------------------------------------------------|-------------|
| 1                         | Frequency distribution for the functionality of the system..... | 71          |
| 2                         | Frequency distribution for the reliability of the system.....   | 73          |
| 3                         | Frequency distribution for the usability of the system .....    | 74          |
| 4                         | Frequency distribution for the efficiency of the system .....   | 75          |
| 5                         | Frequency distribution for the portability of the system .....  | 76          |
| 6                         | Frequency distribution for the maintability of the system.....  | 77          |
| 7                         | Data Dictionary .....                                           | 78          |

## LIST OF APPENDIX FIGURES

| Appendix<br>Figures |                                                                                                                                          | Page |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------|------|
| 1                   | Fishbone diagram of loss of documents .....                                                                                              | 84   |
| 2                   | Fishbone diagram of no centralized file management.....                                                                                  | 85   |
| 3                   | Fishbone diagram of files are not fully secured.....                                                                                     | 86   |
| 4                   | Context diagram of the existing accreditation file<br>transactions in the college of engineering and<br>information technology.....      | 87   |
| 5                   | Data flow diagram of the existing accreditation file<br>transactions in the college of engineering and<br>information technology.....    | 88   |
| 6                   | Gantt chart .....                                                                                                                        | 89   |
| 7                   | Context diagram for centralized repository of<br>accreditation files in the college of engineering and<br>information technology.....    | 90   |
| 8                   | Data flow diagram for centralized repository of<br>accreditation files in the college of engineering and<br>information technology.....  | 91   |
| 9                   | Class diagram for centralized repository of accreditation<br>file in the college of engineering and information<br>technology.....       | 92   |
| 10                  | Use case diagram of the log management module .....                                                                                      | 93   |
| 11                  | Use case diagram of the document management module....                                                                                   | 94   |
| 12                  | Use case diagram of the account management module.....                                                                                   | 95   |
| 13                  | Component diagram of the end-user for centralized<br>accreditation file in the college of engineering and<br>information technology..... | 96   |

|    |                                                                                                                                         |     |
|----|-----------------------------------------------------------------------------------------------------------------------------------------|-----|
| 14 | Component diagram of the administrator for centralized accreditation file in the college of engineering and information technology..... | 97  |
| 15 | Database schema for centralized repository of accreditation file in the college of engineering and information technology.....          | 98  |
| 16 | Activity diagram of the account management module.....                                                                                  | 99  |
| 17 | Activity diagram of the document management module.....                                                                                 | 100 |
| 18 | Activity diagram of the log management module .....                                                                                     | 101 |

## LIST OF APPENDICES

| <b>Appendix</b> |                                                                                                                                             | <b>Page</b> |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 1               | Questions used in interview .....                                                                                                           | 37          |
| 2               | Integration testing sheet for the centralized accreditation files<br>in the College of Engineering and Information<br>Technology .....      | 39          |
| 3               | Unit testing sheet for the account management module .....                                                                                  | 41          |
| 4               | Unit testing sheet for the log management module .....                                                                                      | 43          |
| 5               | Unit testing sheet for the document management module.....                                                                                  | 45          |
| 6               | List of graduate programs offered by the College of<br>Engineering and Information Technology .....                                         | 47          |
| 7               | List of undergraduate degree programs offered by the College<br>of Engineering and Information Technology .....                             | 49          |
| 8               | List of non-degree programs offered by the College of<br>Engineering and Information Technology .....                                       | 51          |
| 9               | Sample source code of the system .....                                                                                                      | 53          |
| 10              | Evaluation sheet for the centralized repository of accreditation<br>files in the College of Engineering and Information<br>Technology ..... | 59          |
| 11              | Certificates .....                                                                                                                          | 62          |
| 12              | Forms .....                                                                                                                                 | 66          |

# **CENTRALIZED REPOSITORY OF ACCREDITATION FILES IN THE COLLEGE OF ENGINEERING AND INFORMATION TECHNOLOGY**

**John Carlo A. De Castro**

---

An undergraduate thesis manuscript submitted to the faculty of the Department of Information Technology, College of Engineering and Information Technology, Cavite State University, Indang, Cavite in partial fulfillment of the requirements for the degree of Bachelor of Science in Information Technology with Contribution No. CEIT-2013-14-115. Prepared under the supervision of Ms. Aiza E. Bihis.

---

## **INTRODUCTION**

A centralized repository system is a system that allows the creation of uniform and useful documents made available and accessible all the time to authorized other users. This also includes the automation of existing manual process in which all documents are stored in one repository and can be accessed anytime.

Accreditation is viewed as a process by which an institution at the tertiary level evaluates its educational activities, in whole or in part and seeks an independent judgment to confirm that it substantially achieves its objectives and is generally equal in quality to comparable institutions. In addition, accreditation in state colleges and universities is by program. A program is defined as a course or a group of related courses packaged in a curriculum and leading to a graduate or undergraduate degree. Examples of programs are elementary teacher education, civil engineering, agriculture, etc. (The Program of Accreditation, n.d).