

Chapter in Book

# Sistem Pengurusan Dokumen Kualiti Politeknik Sultan Idris Shah

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**Abstract:** Sistem Pengurusan Dokumen Kualiti (SPDK) is a system that helps staff of Unit Pengurusan Jaminan Kualiti (UPJK) to manage documents more easily and quickly. Based on the review of current documentation and conducting interviews from staff of UPJK for the previous system which is e-Quality, there are some problems in the use of this system such as document management using one drive is less user friendly and less efficient. Therefore, this system was developed to be an improvement from the old system which is more efficient and suitable for use by all related users. So, basically, this system is controlled, and only registered users can access by login and signup on this system. Other than that, this system implements CRUD concepts which are create, read, update, and delete where admin only can implement this concept whereas for other users can only view and download the documents. This system can organize documents based on the user's role. The system can notify users about the status of quality procedure amendment requests and work instructions. This system is highly capable of being marketed among polytechnic UPJK also can be as a guide for them to develop this system for their own units.

**Keywords:** Quality Management System; Online System.



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## 1. INTRODUCTION

Quality management is a system that is very important for all organizations to be able to achieve each vision, mission, and objective set and to assist them in achieving that target. Unit Pengurusan Jaminan Kualiti (UPJK), Politeknik Sultan Idris Shah (PSIS) was established to coordinate the implementation and management of quality certification to form and cultivate an excellent work culture among PSIS citizens. The main task of the unit is to plan, implement and monitor the effectiveness of programs related to quality management to inculcate a culture of excellent work and practice continuous improvement towards realizing the vision, mission, and quality policy of PSIS. One of the scopes of work performed by UPJK is to manage quality documents. For now, UPJK uses a system called e-Quality to make it easy for PSIS staff and administrator to find and use quality documents.

### *1.1 Problem Statement*

Based on our survey and all the information that have been gathered, there are some problems, such as:

- i. Document management using one drive is less user friendly and less efficient.
- ii. The code for the new and replaced guidelines is written manually.
- iii. The top management takes a long time to certify the status of the quality process amendment application.

### *1.2 Objectives of Project*

There are several objectives for this project which are:

- i. To develop an online management quality document system.
- ii. To generate code for new or replacement guidelines.
- iii. To notify users about the status of quality procedure amendment requests and work instructions via email directly.

### *1.3 Scope of Project*

#### *1.3.1 System's Scope*

The system can organize documents based on user's role, display selected documents based on user's search, generate special codes for new as well as updated guidelines automatically and notify users about the status of quality procedure amendment requests and work instructions

#### *1.3.2 User's Scope*

##### *1.3.2.1 Admin*

Admin can log in and log out system, add / upload documents into the system, update or modify any documents in the system, delete any documents in the system, view, search, archive all the documents. Admin also can check the request of quality procedure recommendations and work instructions by some of the users through this system, generate special codes for new as well as replacement guidelines automatically, download and print the documents.

##### *1.3.2.2 PSIS Staff*

Users can register into the system, log in and log out system, view the documents, search any selected documents, download the documents, print the documents, and make a request of quality procedure recommendations and work instructions through online.

##### *1.3.2.3 Top Management*

Top Management can register, log in and log out, view, search, download, print into the system and approve the application of quality procedure recommendations and work instruction.

## **2. METHOD & MATERIAL**

This project is developed by using Agile Scrum Model which is involved in THREE (3) cycles. Five of phases are involved in each of the cycle, which are Planning, Requirement Gathering, Designing, Development and Testing.

### *2.1 Phases in Agile Scrum Models Cycles*

#### *2.1.1 Planning*

Plan to identify the problem and scope from the existing system, technique to gather the information and the software and hardware that will be involved.

#### *2.1.2 Requirement Gathering*

An interview session with the client and document review on the previous system has been performed to gather the information and requirements for SPDK development.

#### *2.1.3 Designing*

Design the sketch for every interface of the system to achieve the user-friendly system.

#### *2.1.4 Development*

Develop the code for SPDK using Hypertext Preprocessor (PHP) and MySQL database.

#### *2.1.5 Testing*

Test the code and to ensure that the information entered the are saved into the database. If any error occurs, gather the information to overcome the error and find a solution.

## **3. FINDINGS**

The findings of this project will contribute to a new process in managing quality documents more safely, systematically, and efficiently. SPDK is also more controlled in terms of security level because only users with certain positions are allowed to access documents using the id and password that has been approved by the UPJK. This system will be more systematic and efficient in terms of user accessibility to access a document.

## **4. DISCUSSION**

Each system has its own goodness. After testing to the client is carried out, there are some advantages and the limitation of project. Among the advantage found in the SPDK are:

- i. Simple and easy to use for the end user.
- ii. More secure in terms of accessing the documents.

- iii. Have a user-friendly interface such as the combination of the colour, text style, and others.
- iv. Reduce time for staff during making a request of quality procedure recommendations and work instructions and this system also can reduce cost in terms of paper usage.
- v. This system allows Top Management to make an approval about the application of quality procedure recommendations and work instruction through online.

The limitations of this project are:

- i. The password in this system cannot be changed.
- ii. Any updated information in this system is fully managed by Admin only.
- iii. Users must open the system from browser namely Chrome, Firefox, and Safari.

## 5. CONCLUSION

In conclusion, the proposed project is a required system for UPJK in PSIS. It is a web-based system for administrators, department quality teams and staff at PSIS. It is much better than the existing system which is e-Quality because it can help the UPJK to manage documents and files by creating auto generated code. It is hoped that this system will be able to achieve all the objectives that have been proposed and hoped that this system can save time and paper because any documents only stored in one system as a soft copy. It is also a controlled system in terms of security level by only allowing users who have certain positions that can access documents. Not only that, but this system can also make it easier for users to find files easily and make it more systematic and efficient in terms of user accessing a document. Hopefully with the existence of this system can be used better in the future and can be a user-friendly system.

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