

# **Chapter 1**

## **Introduction**

### **1.1. Introduction**

National Institute of Business Management (NIBM) is a Higher Educational Institute which is established under ministry of youth affairs and skills development. This organization has two main divisions as Management Information System (MIS) and Productivity and Management Development (PMD). MIS division conducts information technology related programs from Certificate level to Higher Diploma level. PMD division conducts management oriented programs from Foundation level to Higher Diploma level. These courses are directed by course directors. Course modules are depends on each course. Awarding criteria are also varied according to each course. Each course, there are more than one batch is conducted for a year and NIBM maintains course code to uniquely identify them. Examinations of all these courses are conducted by the examination unit of NIBM.

NIBM current examination system is running manually. Examination registrar is the chief of the unit. Examination staff prepares examination schedule [Appendix B] based on inputs given by each divisional heads. This examination schedule consists of Date of the exam, time of the exam, examination name and hall allocation. Each module lecturer of a course should submit the module paper to the exam registrar few days earlier to the examination. Exam unit allocate lecturers for supervising and other staff as invigilators for the examination depending on their availability. After the examination, papers are sent to the relevant lecturer for marking purposes. Marked papers are submitted to the examination unit. Examination unit again send theses papers for second marking to the relevant lecturer. After that, exam unit publishes result sheet on the notice board. NIBM follows grading scheme to publish the result on some courses.

Students who are going to repeat the examination has to fill a form and take approvals from course director visiting the NIBM. They also have to pay the repeat fee to NIBM

cashier and receive the receipt. Students have to complete the course within 5 years period of time.

NIBM holds award ceremony once a year. Awardees selection is done by the exam unit based on evaluation criteria. Then results are presented to the result board for final approval prior to the award ceremony.

Transcripts are generated for the students who request them. Students should fill forms and submit them to the examination unit. Then Examination unit generate transcripts for each students.

Major problem of NIBM examination system is, it is not an effective one. This examination system waste time of students, lecturers, and examination staff and make mistakes unreasonably.

## **1.2. Background and motivation**

Information technology can be used to develop computerized systems and make our life comfortable. I thought of applying information technology to solve the problem faced by NIBM students, lecturers and examination staff. These people waste time and make mistakes on examination related activities unnecessarily.

When I was studying at NIBM as a student I also faced the some of the difficulties such as getting Exam schedule and exam result on time.

I have studied the solutions given by other institutions to same problems thoroughly. So I decided to develop a computerized examination management system to minimize the constraints and make NIBM examination system a more effective one.

### **1.3. Problem in brief**

I have used set of questioners and interviews to identify the constraints having in NIBM examination system.

There are three parties' faces the problems in examination of NIBM. They are Students, Lecturers and the examination Unit.

Examination staff prepares and publishes exam schedule manually. Preparation of exam schedule includes consideration of examination period, number of examinations within given period of time, Examination hours for each exam, number of candidates for each examination, availability of halls, availability of lecturers and other staff. Because of above considerations, manual exam schedule preparation takes more time. Even it takes more time; I have identified some clashes on it. Students who are not currently studying NIBM\repeat students are not getting the schedule on time.

Repeat students need to visit NIBM for repeat exam registration. This is very inconvenience for the students who live in remote areas and engaged in jobs. For an example student who lives in Jaffna or who works in Jaffna has to spend lot of time and money additionally on visiting NIBM for repeat exam registration.

Students have to visit NIBM to receive the results of examination they faced. Examination unit publishes results on notice board. Because of this reason students are not getting exam results as soon as it released. Some students who are currently not studying NIBM have to spend time and money unnecessarily to receive their result by visiting NIBM.

Selecting of awardees for the award ceremony is also done by the exam staff manually. Selection of awardees is not an easy task because selection criteria are different for each course. For an example consider the course Diploma in Computer System Design. Candidates of this course should take average mark 66 for all modules to successfully complete the course. But candidates of Higher Diploma in Computer Based Information System course have to take mark 40 for each module for successfully completion. Not

only that ,staff also has to select students who have taken first class, second class, highest mark in each course. This consumes lot of time and sometimes makes errors.

Transcripts generation is done manually. Examination staff has to go through the student result sheets, extract the marks and type the transcript. When preparing many transcripts staff may consume lot of time stressfully. Also students have to visit NIBM to request the transcript by filling forms.

The major problem of NIBM examination system is, it is not managed examinations effectively. So I proposed Examination Management System to effectively manage examinations of NIBM.

#### **1.4. Aims and objectives**

Main aims and objectives of the project are identified as listed below;

- Accessing exam results online.
- Saving time on exam related activities.
- Maintain accuracy of exam records.
- Authorization of records
- Fast track record access.

#### **1.5. Proposed Solution**

I propose online Examination Management System in the purpose of improving NIBM current examination management process. This system consists of a Mobile application and a Web application. This online computerized system functions as described below.

##### **1.5.1. Exam Scheduling**

Examination unit is able to generate the examination schedule automatically. Generated examination schedule can be viewed by students, supervisors and invigilators. They will receive the schedule alert through e-Mail.

## **1.5.2. Exam Registration**

Students are not required to visit NIBM to apply for repeat examination. They are allowed to log in to the examination system using their student number and register for repeat examinations online. Payments can also be done through the system.

## **1.5.3. Exam Result view**

Students are able to view their examination results through proposed system. Students are given two main options to view the result.

### **1.5.3.1. Through WEB**

Students are required to log in to the system by entering given student number. They can view examination results which have been published by the examination unit.

### **1.5.3.2. Through Mobile**

Students, who have mobile phone, can receive their examination result simply sending an SMS.

## **1.5.4. Exam Awardees Selection**

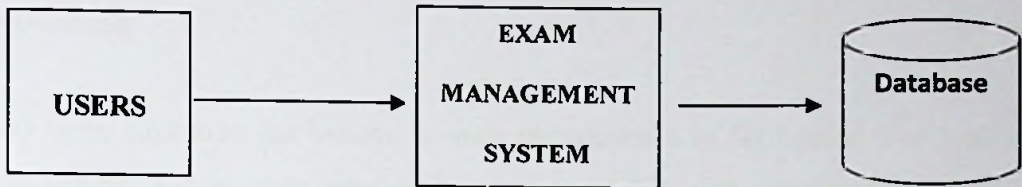
Examination unit can easily awardees of each batch in different courses through this web based system.

## **1.5.5. Exam Transcript Request**

Students are allowed to request exam transcript through computerized system online.

### 1.5.6. Exam Result Analysis

Examination results can be analyzed in different required view through this module.



**Figure 1.1: Solution Overview**

### 1.6. Summery

Chapter one of the report briefly introduce National Institute of Business Management. Then background and motivation for the project was explained. After that I have briefly mentioned the problem which NIBM facing when handling examinations. Next aims and objectives of the project stated. Then I describe the proposed solution for the problem satisfying aims and objectives.

This report includes mainly five chapters. Chapter 1 provides introduction of the project. Chapter 2 describes literature review. Chapter 3 is on technology applying for the proposed solution. Chapter 4 explains the solution for the problem. Next chapter includes the design of the solution. Final chapter state the implementation details of the proposed solution.