

**DESIGNING A PROTOTYPE FOR UPNM ACADEMIC AND STUDENT  
SYSTEM APPLY WITH CONTENT MANAGEMENT CONCEPT**

**ADE WAHYU RAMADHANI**

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**DESIGNING A PROTOYPE FOR UPNM ACADEMIC AND STUDENT  
SYSTEM APPLY WITH CONTENT MANAGEMENT CONCEPT**

**A thesis submitted to the College of Arts and Sciences in partial fulfillment of the  
requirements for the degree of Master of Science (Information Technology)  
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**By  
Ade Wahyu Ramadhani**



**KOLEJ SASTERA DAN SAINS**  
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Universiti Utara Malaysia

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Pensyarah  
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## **ABSTRACT**

The need of web application in the technology information era becomes very important. Nowadays, web application is a backbone of information system. Universiti Pertahanan Nasional Malaysia as one of public universities in Malaysia realizes that by applying web application technology in their institution to maximize from such application. UPNM Academic and Student System as the main academic system in the UPNM show improvement in managing their community by integrating web technology in their systems. This system use Web Content Management System (WCMS) in order to increase their performance and efficiency of work. It has two main entities, namely lecturer and student. Prototyping is needed as a model for designing this system which no fixed requirements. UPNM Academic and Student System is a system with complex rules, policies and requirements. Because of this complexity, prototype will play the role to assist the system to the stakeholder.

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## LIST OF ABBREVIATION

Abbreviation	Description
ASP	Active Server Page
ASIS	Academic and Student Information System
CM	Content Management
CMS	Content Management System
<i>et al.</i>	Et Alii/Alia (Latin: And Others)
HTML	Hyper Text Markup Language
HTTP	Hyper Text Transfer Protocol
IP	Internet Protocol
IT	Information Technology
JSP	Java Server Page
Max	Maximum
Min	Minimum
MS	Microsoft Corporation
PHP	Hypertext Preprocessor
PNGK	Purata Nilai Gred Kumulatif
PNGS	Purata Nilai Gred Semester
SQL	Structured Query Language
TCC	Total Calculated Credit
TCT	Total Credit Taken
TGM	Total Grade Mark
TPG	Total Pass Grade
UAT	User Acceptance Test
UNIX	UNiplexed Information and Computing
UPNM	Universiti Pertahanan Nasional Malaysia

UUM	Universiti Utara Malaysia
Vs	Versus
WCM	Web Content Management
WCMS	Web Content Management System
XML	Extensible Markup Language

# CHAPTER 1

## INTRODUCTION

The need of web application in the technology information era is very important in assisting human performing their task and carrying out their activities. Internet users create an electronic record that needs to be maintained by conducting business transactions over the web (Barry, 2004). Expertise has proposed a lot of web modeling approaches in order to provide efficiency and the best method of developing web applications (Luinenburg *et al.*, 2008). A decision to manage the content of the web application is very critical since there are many web application methods and approaches to describe their models (Luinenburg *et al.*, 2008) out there.

Web content management (WCM) is the answer to this matter. According to Sireteanu *et al.* (2008), WCM systems as a branch of content management (CM) gained importance during the web explosion in the mid-1990s. CM is a formal process of converting, collecting, and organizing data, assets and resources of a corporation, institution, project communities or other group of resources in one location in the form of objects. This is very important in order to ensure that knowledge is captured and disseminated efficiently (Brennan *et al.*, 2001). Miller and Manafy (2003) mentioned that the true power of content management “may actually lie in its flexibility to change shape to fit each new business problem before it.” (As cited in Yu, 2005, p. 3).



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