

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

**An Integrative Approach to Online Conference
Review Management**

**A THESIS
SUBMITTED IN PARTIAL FULFILMENT
OF THE REQUIREMENTS FOR THE DEGREE
OF
MASTER OF SCIENCE IN INFORMATION SYSTEM
IN
MASSEY UNIVERSITY
By
He Meng**

**MASSEY UNIVERSITY
2003**

Acknowledgements

I would like to thank Dr. Kinshuk, my supervisor, for his sincere and constant guidance. He has been a source of knowledge and inspiration all the way long. This thesis would have been impossible without his guidance and support. I have felt lucky to have him as a supervisor.

Content

CONTENT.....	I
CHAPTER 1 INTRODUCTION.....	1
1.1 CURRENT PROBLEMS IN CONFERENCE PAPER REVIEW MANAGEMENT	1
1.2 ROLES IN AN ACADEMIC CONFERENCE.....	2
1.3 PROCEDURE OF PAPER PROCESSING IN ACADEMIC CONFERENCE.....	3
1.4 ONLINE PAPER SUBMISSION SYSTEM	5
1.5 ADVANTAGES OF ONLINE PAPER SUBMISSION SYSTEM.....	5
1.6 OBJECTIVE OF THE PROJECT	6
1.7 OVERVIEW OF THE THESIS.....	7
CHAPTER 2 RESEARCH METHODOLOGY.....	9
2.1 INTRODUCTION	9
2.2 PICTURE COMPARISON METHOD.....	9
2.3 SYSTEM SELECTION	9
2.4 FRAMEWORK DEVELOPMENT	10
2.5 SOURCE OF INFORMATION.....	13
2.6 SUMMARY.....	13
CHAPTER 3 REVIEW OF EXISTING CONFERENCE MANAGEMENT SYSTEMS.....	15
3.1 INTRODUCTION	15
3.2 CYBERCHAIR.....	15
System full name.....	15
System short name.....	15
System web site.....	15
User manual/Technical manual/System description.....	15
System demonstration available.....	15
3.2.1 <i>Functionality</i>	16
Author registration.....	16
Paper submission.....	16
Reviewer registration.....	16
Reviewer obtaining paper.....	16
Submitting review	17
Discussion	17
Assignment to reviewers	17
Paper distribution.....	18
Monitoring the review process	18
Control the review process	18
Make final decision	18
Summary of time.....	19
Summary of skills needed for each type of users.....	19

3.2.2 <i>Development</i>	20
Language	20
Database.....	20
Interface	20
3.2.3 <i>Limitations</i>	20
3.3 CONFMAN.....	20
System full name	21
System short name	21
System web site	21
User manual/Technical manual/System description	21
System demonstration available.....	21
3.3.1 <i>Functionality</i>	21
Author registration.....	21
Paper submission	21
Reviewer registration.....	22
Reviewer obtaining paper	22
Submitting review.....	22
Discussion.....	23
Assignment to reviewers.....	23
Paper distribution.....	23
Monitoring the review process.....	24
Control the review process.....	24
Make Final decision.....	24
Summary of time	25
Summary of skills needed for each type of users	25
3.3.2 <i>Development</i>	25
Language	25
Database.....	26
Interface	26
3.3.3 <i>Advantage and limitations</i>	26
3.4 EDAS	26
System full name	27
System short name	27
System web site	27
User manual/Technical manual/System description	27
System demonstration available.....	27
3.4.1 <i>Functionality</i>	27
Author registration.....	27
Paper submission	27
Reviewer registration.....	28
Reviewer obtaining paper	28
Submitting review.....	28
Discussion.....	28
Assignment to reviewers.....	28

Paper distribution.....	29
Monitoring the review process	29
Control the review process	30
Make final decision	30
Summary of time	30
Summary of skills needed for each type of users.....	31
<i>3.4.2 Development.....</i>	<i>31</i>
Language	31
Database	31
Interface.....	32
<i>3.4.3 Features and limitations.....</i>	<i>32</i>
3.5 THE ELECTRONIC SUBMISSION AND REVIEWING SYSTEM USED FOR POS8	33
System full name	33
System short name.....	33
System web site	33
User manual/Technical manual/System description.....	33
System demonstration available	33
<i>3.5.1 Functionality</i>	<i>34</i>
Author registration.....	34
Paper submission.....	34
Reviewer registration.....	34
Reviewer obtaining paper.....	35
Submitting review	35
Discussion	35
Assignment to reviewers	35
Paper distribution.....	36
Monitoring the review process	37
Control the review process	37
Make final decision:	37
Summary of time	37
Summary of skills needed for each type of users.....	38
<i>3.5.2 Development.....</i>	<i>38</i>
Language:.....	38
Database	39
Interface.....	39
<i>3.5.3 Features and limitations.....</i>	<i>39</i>
3.7 OTHER CONFERENCE MANAGEMENT SYSTEMS.....	40
3.8 SUMMARY.....	44
CHAPTER 4 REQUIREMENT ANALYSIS OF CONFERENCE SUBMISSION SYSTEM.....	49
4.1 OVERVIEW	49
4.2 GENERAL REQUIREMENT OF A TYPICAL CONFERENCE SUBMISSION SYSTEM	50
4.2.1 System functionality.....	50
4.2.2 User characteristics	52

4.3 FUNCTIONAL REQUIREMENTS OF THE SYSTEM	54
4.3.1 <i>Common functionality for all types of registered users</i>	55
4.3.1.1 Registration.....	55
4.3.1.2 Login.....	57
4.3.1.3 Logout.....	57
4.3.1.4 Forget password or user name.....	57
4.3.1.5 Modify profile.....	58
4.3.1.6 Change password	58
4.3.2 <i>Specific functionality for paper contact person</i>	58
4.3.2.1 Submit paper.....	59
4.3.2.2 View submitted paper	60
4.3.2.3 Cancel submitted paper.....	60
4.3.2.4 Download paper.....	60
4.3.3 <i>Particular functionality for reviewers</i>	61
4.3.3.1 Download paper.....	61
4.3.3.2 Make or Modify review	62
4.3.4 <i>Particular tasks for committee members</i>	63
4.3.4.1 Assign paper to reviewer.....	63
4.3.4.2 Make and cancel recommendation on the paper	67
4.3.5 <i>Particular tasks for committee chair</i>	67
4.3.5.1 Assign papers to committee members.....	69
4.3.5.2 Assign paper to reviewers over limit.....	69
4.3.5.3 Make decision on papers and notify the author.....	70
4.3.5.4 Authorise committee members and reviewers	70
4.3.5.5 Set up system parameters	71
4.4 NON-FUNCTIONAL REQUIREMENT.....	71
4.4.1 Scalability.....	71
4.4.2 Compatibility.....	72
4.4.3 Security.....	72
4.4.4 Adaptability.....	72
4.4.5 Maintainability	73
4.5 SUMMARY.....	73
CHAPTER 5 WEB PROGRAMMING TECHNIQUES AND OUR CHOICE.....	75
5.1 INTRODUCTION	75
5.2 WEB-BASED APPLICATION	75
5.3 WEB PROGRAMMING TECHNIQUES	77
5.3.1 <i>The server side programming techniques</i>	77
5.3.1.1 Common Gateway Interface (CGI).....	77
5.3.1.2 Java servlet.....	78
5.3.1.3. ASP.....	78
5.3.1.4 JSP	78
5.3.1.5 PHP	79

5.3.2 <i>The client side programming technique</i>	79
5.3.2.1 JavaScript	79
5.3.2.2 VBScript.....	79
5.3.2.3 Applet	80
5.4 SELECTION OF THE PROGRAMMING TECHNIQUES FOR THE PROJECT---JAVA SERVLET, JSP,	80
JAVABEAN, JDBC AND MYSQL	80
5.5 JAVA SOLUTION	81
Tomcat.....	81
JavaBean.....	82
JDBC	82
MySQL.....	83
Web techniques selected for the project	83
The usage of applet.....	84
JavaBean vs EJB	84
Java IDE-JBUILDER4.....	85
5.6 SUMMARY.....	85
CHAPTER 6 SYSTEM DESIGN AND IMPLEMENTATION.....	87
6.1 INTRODUCTION	87
6.2 DESIGN OF THE THREE-TIER ARCHITECTURE	87
6.3 THE USER INTERFACE DESIGN	87
6.3.1 <i>Login interface</i>	87
6.3.2 <i>Interface design for authors</i>	88
6.3.3 <i>Interface design for reviewers</i>	89
6.3.3 <i>Interface design for reviewers</i>	90
6.3.4 <i>Interface design for committee members</i>	91
6.3.5 <i>Interface design for Program Committee Chair</i>	92
6.3.5.1 Set up system parameters.....	92
6.3.5.2 User management	95
6.3.5.2 User management	96
6.3.5.3 Paper management.....	96
6.3.6 <i>Interface design for user registration and modifying profile</i>	97
6.4 THE DATA STORAGE AND DATABASE DESIGN	100
6.5 IMPLEMENTATION DETAILS OF SYSTEM ARCHITECTURE.....	107
6.5.1 <i>Communication between browser and servlets</i>	107
6.5.2 <i>Request processing in servlets</i>	108
6.5.3 <i>JSP and JavaBeans implementing the user interfaces</i>	109
6.5.3.1 Locating or creating a JavaBean from JSP page with UseBean Tag.....	109
6.5.3.2 Representing HTML form controls with data form Java Beans.....	109
6.5.4 <i>Cooperation of Java components in implementing the system function</i>	111
6.6 SUMMARY.....	120
CHAPTER 7 CONCLUSION AND FUTURE WORK	121

7.1 THE USAGE OF THE CONFERENCE SUBMISSION SYSTEM.....	121
7.2 REVIEW OF THE SYSTEM FUNCTIONALITY	136
7.3 FUTURE WORKS.....	138
REFERENCES:	139