ISSN : 2301-5690

INTERNATIONAL CONFERENCE

ENGINEERING & TECHNOLOGY DEVELOPMENT
UBL ICETD
2013

The Second International Conference on Engineering and Technology Development

2nd ICETD 2013

27, 28, 29 August 2013, Bandar Lampung, Indonesia

PROCEEDINGS

In Cooperations With :

APTIKOM

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

SURYA INSTITUTE

Hosted by :
Faculty of Engineering and Faculty of Computer Science,
Bandar Lampung University (UBL), Indonesia

2nd ICETD 2013

The Second International Conference On Engineering And Technology Development

28 -30 January 2013
Bandar Lampung University (UBL)
Lampung, Indonesia

PROCEEDINGS

Organized by:

Faculty of Computer Science and Faculty of Engineering
Bandar Lampung University (UBL)
Jl. Zainal Abidin Pagar Alam No.89 Labuhan Ratu, Bandar Lampung, Indonesia
Phone: +62 721 36 666 25, Fax: +62 721 701 467
website :www.ubl.ac.id

ISSN 2301-6590

PREFACE

The Activities of the International Conference is in line and very appropriate with the vision and mission of Bandar Lampung University (UBL) to promote training and education as well as research in these areas.

On behalf of the Second International Conference on Engineering and Technology Development (2nd ICETD 2013) organizing committee, we are very pleased with the very good response especially from the keynote speaker and from the participans. It is noteworthy to point out that about 80 technical papers were received for this conference.

The participants of the conference come from many well known universities, among others : University Kebangsaan Malaysia – Malaysia, APTIKOM – Indonesia, Institut Teknologi sepuluh November – Indonesia, Surya Institute – Indonesia, International Islamic University – Malaysia, STMIK Mitra Lampung – lampung, Bandung Institut of Technology – Bandung, Lecture of The Malahayati University, B2TP – BPPT Researcher – lampung, Starch Technology Center – Lampung, Universitas Islam Indonesia – Indonesia, Politeknik Negeri Malang – Malang,University of Kitakyushu – Japan, Gadjah Mada University – Indonesia, Universitas Malahayati – Lampung, Lampung University – lampung, Starch Technology Center – Lampung, Universitas Riau – Riau, Hasanuddin University – Indonesia, Diponegoro University – Indonesia, King Abdulaziz University – Saudi Arabia, Parahyangan Catholic University – Indonesia , National Taiwan University– Taiwan, Surakarta Christian University – Indonesia, Sugijapranata Catholic University – Indonesia, Semarang University – Indonesia, University of Brawijaya – Indonesia, PPKIA Tarakanita Rahmawati – Indonesia, Kyushu University, Fukuoka – Japan, Science and Technology Beijing – China, Institut Teknologi Sepuluh Nopember – Surabaya, Researcher of Starch Technology Center, Universitas Muhammadiyah Metro – Metro, National University of Malaysia – Malaysia.

I would like to express my deepest gratitude to the International Advisory Board members, sponsor and also to all keynote speakers and all participants. I am also gratefull to all organizing committee and all of the reviewers who contribute to the high standard of the conference. Also I would like to express my deepest gratitude to the Rector of Bandar Lampung University (UBL) who give us endless support to these activities, so that the conference can be administrated on time

Bandar Lampung, 29 August 2013-08-26

Mustofa Usman, Ph.D
2nd ICETD Chairman

ISSN 2301-6590

PROCEEDINGS

2nd ICETD 2013

The Second International Conference
On Engineering And Technology Development

28 -30 January 2013

INTERNATIONAL ADVISORY BOARD

ISSN 2301-6590

PROCEEDINGS

2nd ICETD 2013

The Second International Conference
On Engineering And Technology Development

28 -30 January 2013

STEERING COMMITTEE

Executive Advisors
Dr. M. Yusuf S. Barusman
Andala R. P. Barusman, MA.Ec

Chairman
Mustofa Usman, Ph.D

Co-Chairman
Dr. Ir. Hery Riyanto, MT
Ahmad Cucus, S.Kom., M.Kom

Secretary
Marzuki, S.Kom., M.Kom
Maria Shusanti Febrianti, S.Kom., M.Kom

Technical Committee
Indyah Kumoro, ST. IAI
Ardiansyah, ST., MT
Sofiah Islamiah, ST. MT
Taqwan Thamrin, ST., MSc
Dina Ika Wahyuningsih, S.Kom
Agus Sukoco, M.Kom
Hj. Susilowati, ST. MT
Haris Murwadi, ST, MT
Robby Yuli Endra, S.Kom., M.Kom
Fenty Ariani, S.Kom., M.Kom

Treasure
Samsul Bahri, SE
Dian Agustina, SE

ISSN 2301-6590

PROCEEDINGS

2nd ICETD 2013

The Second International Conference
On Engineering And Technology Development

28 -30 January 2013

ORGANIZING COMMITTEE

Chair Person
Dr. Ir. Hery Riyanto, MT

Vice Chair Person
Yuthsi Aprilinda, S.Kom., M.Kom

Treasure
Dian Agustina, S.E

Secretary
Aprizal, ST. MT
Ir. Tjejeng Sofyan, MM
Ir. Muhammad Zein, MT
Ir. Bambang Pratowo, MT

Special Events
Ir. Juniardi, MT
Ir. Indra Surya, MT
Ir. Sugito, MT
DR. Baginda Simaibang, M.Ed
Berry Salatar, S.Pd
Yanuar Dwi Prasetyo, S.Pd.I., M.A

Receiptionist
Ir. Najamudin, MT
Kunarto, ST. MT
IB. Ilham Malik, ST. MT
Ir.A Ikhsan Karim, MT
Ir. Asikin, MT
Usman Rizal, ST., M.MSi

Transportation and Acomodation
Irawati, SE
Desi Puspita Sari, S.E
Tanto Lailam, S.H

ISSN 2301-6590

Ilyas Sadad, S.T., M.T

Publication and Documentation
Ir. Indriati Agustina Gultom, M.M
Noning Verawati, S.Sos
Hesti, S.H
Rifandi Ritonga, SH
Violita, S.I.Kom

Cosumption
Dra. Yulfriwini, M.T
Wiwin Susanty, S.Kom., M.Kom
Fenty Ariani, S.Kom., M.Kom
Reni Nursyanti, S.Kom., M.Kom
Erlangga, S.Kom
Arnes Yuli Vandika, S.Kom

Facility and Decoration
Siti Rahma Wati,SE
Dina Ika Wahyuningsih, S.Kom
Zainal Abidin, SE
Ahyar Saleh, SE
Eko Suhardiyanto
Wagino
Sugimin

ISSN 2301-6590

Table Of Content

Speaker

ISSN 2301-6590

The E-internal audit iso 9001:2008 based on accreditation form assessment matrix in study program for effectiveness of monitoring accreditation

Marzuki[#1], Maria Shusanti F.[#2]
[#]informatics enginerring study program, computer science faculty, bandar lampung university
Za. Pagar Alam. St. No. 26 Labuhan Ratu Bandar Lampung, Indonesia
[1]marzukird@yahoo.com
[2]suzanne_maria1986@yahoo.com

Abstract-*Accreditation is one of the form external quality guarantee system, it is a process that used in authorized institution in giving formal recognition that an institution has an ability to do certain activity. On the pepare processing there is some things that should be done by study program by using internal audit in periodic time. Internal audit is an independence activity, objectivity, and consultative which is designed to increase the organization's operation This scientific Writing will specifically focus on internal process audits in preparation for accreditation of Information Engineering Study Program at Bandar Lampung University with doing monitoring directly that can be accessed by some units in a management system based on guidelines and standards for internal audit issued by one of several organizations ISO, the quality management system ISO 9001: 2008, one of the requirements that must be fulfilled conduct periodic internal audits. This standard is very good when applied in the preparation of the accreditation process, accreditation assessment matrix as a guide in conducting internal audits.*

Keywords: *Accreditation, ISO 9001:2008, Internal Audit*

ISSN 2301-6590

INTRODUCTION

Accreditation is a form of external quality waranty system, it is the process that used in authorized institution in giving formal recognition that an institution has the ability to perform certain activities.

Thus, accreditation protect the public from fraud by parties who are not responsible. The characteristics of accreditation is the hallmark assessment by experts from outside that relevant institutions (external peer reviewers), and conducted by volunteers, for college organized a course of study. This activity begins by conducting a self-evaluation (self-evaluation) of the various / components of inputs,the process and product from the study program that want to be accredited must submit its report to the accessors institution.

In accreditation preparation process there are some things that are done by one of the study program is periodically conduct audits, audit activity is an independent, objective and consulting designed to add value and improve an organization's operations. This is help the organization to achieve its purpose systematicly, disciplined approach to evaluate and improve the effectiveness of risk management, internal control, etc.

But in the audit process in preparation for accreditation find some obstacles such as the company did the audit only as the madatory, without any the direct monitoring that can be accessed by multiple units within the management system. Other issues of monitoring and updating of data from internal audit, which has been done with paper base, so that the consumption of paper for every invention and audit results and the report is presented in the form of printed reports.

Guidelines and audit standards given by several organizations and one of them is ISO, on the quality management system ISO 9001: 2008 one of the requirements that must be fullfilled periodically internal audits. This standard is very good when applied in the preparation of the accreditation process, accreditation assessment matrix as a guide in audit conducting.

From the arise problems then arise some ideas to make the audit process easier to do, such as with audit implementation into electronic form, where updating the data and reports and the system process that is done by website media, so it can increase effectiveness of audit activity monitoring, updating data faster and more efficient in the preparation of reports that do not need a lot of resources.

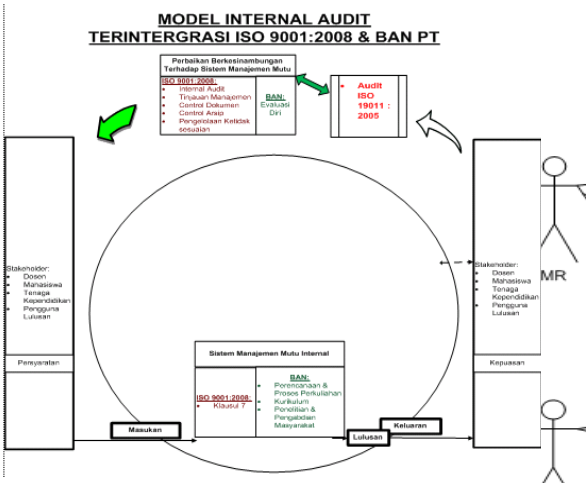
PROCEDURE

This observation formulates the problem is how to compose e-Internal Audit ISO 9001:2008 Accreditation Forms-Based Matrix Assessment Study for Effectiveness Monitoring Program Accreditation which aims to:

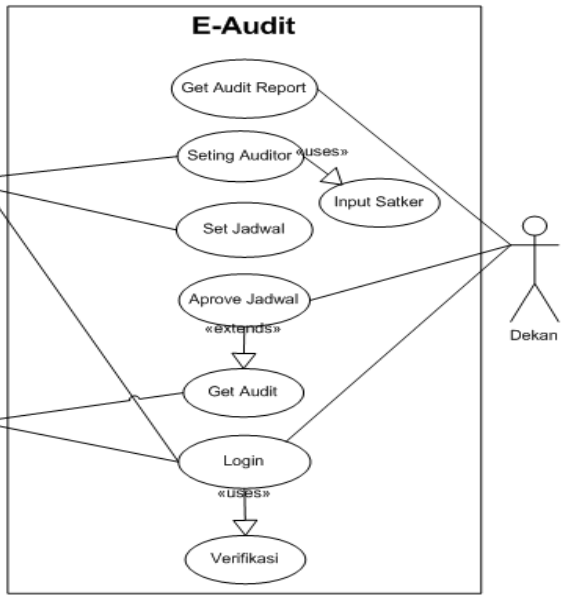
1. Testing the mapping between the standard ISO 9001:2008 and form accreditation of bachelor degree study program

2. ISO 9001:2008 audit evaluates the matrix-based assessment accreditation forms with monitoring effectiveness assessment study program accreditation forms.

By implementing the ISO 9001:2008 standard accreditation forms study program and it must be done measuring use ISO 19011:2005 and the function of monitoring the effectiveness of accreditation, which is described in the internal model of the integrated audit of ISO 19011:2005 ISO 9001:2008 & BAN PT following:



Picture.1 Model integrated internal audit ISO 19011:2005 ISO 9001:2008 & BAN PT



Picture 2. Use Case

TECHNICAL ANALYSIS

Analysis and observation measuring use the method of comparative / comparisons that can be used to test the suitability of the difference in an experiment of output on a process. If it has an impact on the experimental results (experimental purposes), so it will seen a the significant difference, using the following equation:

$$vt = \sum_{i=1}^{n} Capai_i * Bobot_i$$

$$S = \sum (vt_1 - vt_2)$$

$$Peningkatan = \left(\frac{S}{vt_1}\right) * 100\%$$

THE RESULT

In this observation developed software that adopt the audit process that used in quality management system. The actor's involvement with the system shown in picture2.

In picture Use case the actors that involved in the system is the Management Representative (MR) is an actor who plays a role regulating the audit process and controlling those activities in order to run as a standard procedure in force. MR in the quality management system is the chairman of quality waranty. While Dean is as the responsible management member and also as the peak/main management at faculty level. While the auditor is an actor who performed an audit or as actors who carry out the whole process level courses in study program level.

Programming algorithm on e-audit process flow depicting the big outline on the application audit that listed on the pseudocode that is refered to others . Globally pseudocode application in this observation is illustrated in picture 3.

```
Pseudo-code : Audit
Narrativ: Computasi e'audit berdarkan matrik penilaian
Input: Tabel auditor, satker,standar,temuan dan jadwal
Output: Temuan Rinci
(1)  START
(2)  Input User, Password
(3)  Verification
(4)  If User equal "MR"
       Load MRPage
       Set Satker
       Set Auditor
      Set Jadwal
      Else
       If User equal "Dekan"
            Load DekanPage
          If jadwal.equal approve
            Jadwal equal true
            Else
                Jadwal equal false
          End if
          Get audit Report
          Else
             If User Equal "Auditor"
                 Load AuditorPage
                 Selcect Uadit Number
```

THE IMPLEMENTATION

This observation uses a the implementation of software e-audit:

1. GUI Login

Gui login is interface that is used for validation of the parties has the right to be able to go in and be able to use all the facilities that exist in the system.

picture.3: GUI Login

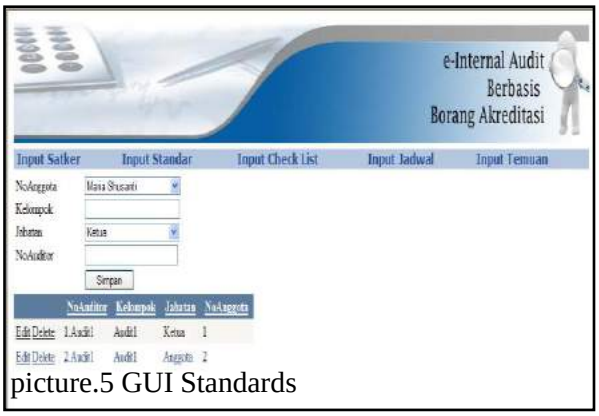
2. GUI Satker

GUI Satker is interface that used to provide input ideas to system-related parties, on this page, just fill the system on administrator membership such as number, name and unit of work, where do members workers.

picture.4. GUI Satker

3. Standard GUI

Standard GUI is the interface to give inform to the system about every standard that available on the standard accreditation forms and also the weight of scorring on every standard that has been taken from the accreditation assessment matrix.



picture.5 GUI Standards

4. GUI Auditor

Is the interface to form auditor groups of that is involved with each corresponding positions are determined by the representative management.

Picture .6 GUI Auditor

5. GUI Schedule

GUI schedule is used to provide audit schedule that is done based on agreement between the lead of author and other parties that will be audited.

ISSN 2301-6590

Picture .7 GUI Schedule

6. GUI Findings

GUI Findings is interface that give suggestion to the system because of invention that available on audit process.

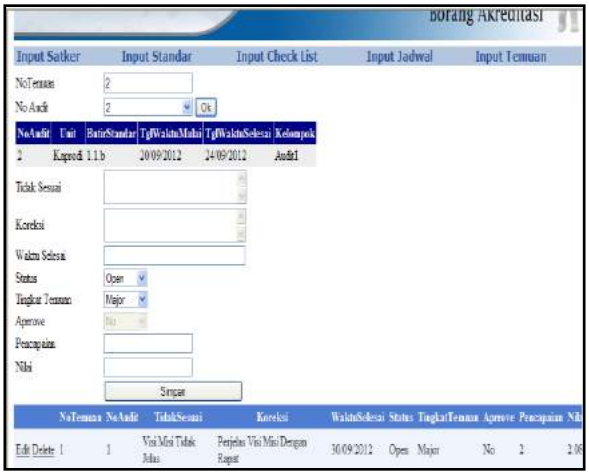


Fig.8 GUI Findings

7. Detailed Findings GUI

Is the interface that details the findings of the audit process on the level of each item audited standards. By performing calculations based on the existing achievements, calculated based on the weight of each item in accordance with standard valuation metrics.

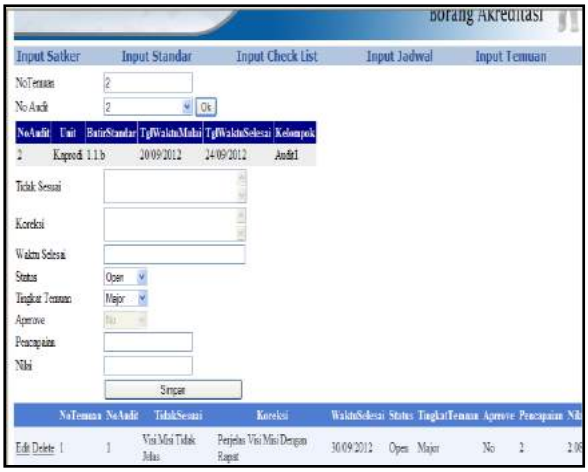


Fig.9. Detailed Findings

8. GUI Print Report

Interface is displayed to print the audit report.

Fig 10. Print Reports

with two implementation, By doing measuring the difference between the implementations I and Implementation II, and the result is in table 1 and table II

Table 1. Implementation I

No.	No. Butir Penilaian	Aspek Penilaian	Pencapaian	Bobot	Nilai*
1	1.1.a	Tertera	3	1.04	3.12
2	1.1.b	Tertera	3	1.04	3.12
-	-	-	-	-	-
-	-	-	-	-	-
98	7.2.2	Tertera	3	1.88	5.64
99	7.3.1	Tertera	4	1.88	7.52
100	7.3.2	Tertera	4	1.88	7.52
Total					246.3
Nilai Akhir :					**184.7**

Table Implementation II

Analysis and research using the method of comparative / comparisons that can be used to test the suitability of the difference in an experiment on the output of a process. If it has an impact on the experimental results (experimental

 ISSN 2301-6590

purposes), so it will seen a significant difference as shown in table 4.

No.	No. Butir Penilaian	Aspek Penilaian	Pencapaian	Bobot	Nilai*
1	1.1.a	Tertera	3	1.04	3.12
2	1.1.b	Tertera	3	1.04	3.12
-	-	-	-	-	-
-	-	-	-	-	-
98	7.2.2	Tertera	4	1.88	7.52
99	7.3.1	Tertera	4	1.88	7.52
100	7.3.2	Tertera	4	1.88	7.52
Total					335
Nilai Akhir :					**251.3**

Uraian	Implementasi I	Implementasi II
Total nilai	246.3	335
Nilai akhir	184.7	251,3

X = Implementasi II - Implementasi I (1)

Peningkatan = X /Implementasi I * 100 (2)

Maka hasil komparasi adalah sebagai berikut:

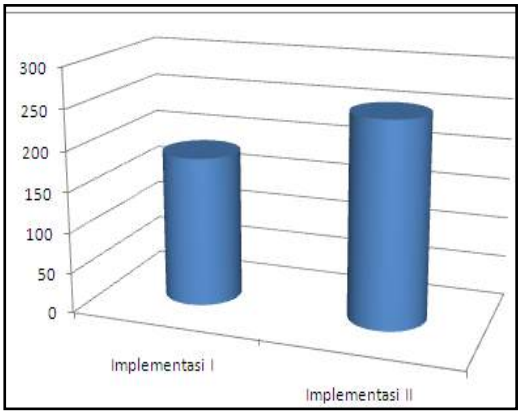
X = 251.3 -184.7

= 66.6

Peningkatan = 66.6/184.7 * 100

= 36.058%

So it can be seen improvement using the graph in picture 11.



Picture 11. Comparison Charts

ONCLUSION

fter analyzing the results of the mplementation I and implementation II, is observation find some important vention that can be formulated on the nclusion, such as:

Improved assessment (final grade) in is observe showed an increase in the lue of the accreditation is 36 058%.

2. The application of e-assessment matrix accreditation forms can increase the effectiveness of monitoring accreditation S1.

REFERENCES

[5] Dudek-Burlikowska, M. (2010). *Aspects Of Improving The Organization Directed To The Quality.* International Scientific Journal.

[6] Durai Anand Kumar, D. V. (2011). A Study on ISO 9001 Quality Management System Certifications – Reasons behind the Failure of ISO Certified Organizations. *Anna university of Technology, Coimbatore,Tamil Nadu* .

[7] Michalska-Ćwiek, J. (2009). *The Quality Management System in Education - Implementation and Certification.* ", Institute of Engineering Materials and Biomaterials, Silesian University of Technology.

[8] Poza, A. S. (2009). Implementing a Functional ISO 9001 Quality Management System in Small and Medium-Sized Enterprises. *Volume (3)* (Issue (3

2nd International Conference on Engineering and Technology Development (ICETD 2013)
Universitas Bandar Lampung
Faculty of Engineering and Faculty of Computer Science
ISSN 2301-6590

The Developing Of e-Consultations For Effectiveness of Mentoring Academy

Ahmad Cucus, Endang Kusnadi
informatics enginerring study program, computer science faculty, bandar lampung university
Za. Pagar Alam. St. No. 26 Labuhan Ratu Bandar Lampung, Indonesia

Abstract - *e-Consultations is one of the technology trends that could not be separated from the internet, e-Consultations are an alternative media that can be used to the consultation, online consultation which would further be easier because not limited by time and place, but all of these activities can konultasi properly recorded and can be reused at any time. Seeing the advantages of e-Consultations so the authors try to apply it in the process of academic guidance contained withing the campus, as an important tool, sometimes many academic coaching problems, such as meeting duration and schedule of meetings between students and lecturers, with the implementation of e-Consultations expected to assist students and faculty in academic mentoring activities.*

Keyword*: e-Consultations, academic guidance*

Introductions

Process of teaching and learning activities in higher education in Indonesia contains many kinds of activities one of which is academic coaching, this activity is intended to develop skills for education students, student need direction and academic guidance, so they can finish their education well, and the media to consult if there are any problems in the subjects, that's why we set a lecturer as academic advisor (PA) for a number of students. Academic supervisor was appointed lecturer by the head of the study program and he/she is given some task to guide some students who aim to help students complete the study as efficiently as possible in accordance with the conditions and potential of the individual student.

Students are required to meet the ideal achievement of credits each semester, so the time for studying can be finished on time. By the goverment rules as the implementation realization national education system that we called as administrator member (teachers, lecturers, tutors, facilitators) as mentors, trainers and facilitators (Miarso, 2004: 51) From this it can be clearly seen that the position of lecturer, where as a teacher, educator, and also as a mentor for the students. Especially, more and technical, it can be said as an academic supervisor for the student.

However, most of the intensity guidance the student and the supervisor is not running as it should be because of time, place, and students' comfortable so they can share their problem maximuly also include their personal in conducting guidance remains face (right) did not go well. whereas, in such a case is not expected by the students.

From the previous data of the previous observation obtained more than 60 percent of students feel less equally effective in the process of academic guidance. Due to various constraints such as poor communication, not being recorded material from the consultation and the consultation time and the limited duration of the meeting, the limited place to have a communication, because it is necessary to support media for academic

mentoring process in an effort to increase the effectiveness of academic advising.

The Introduction of Online-consultations

Online consultations or e-consultations refer to an exchange between government and citizens using the Internet. They are one form of online deliberation. Further, online consultation consists in using the Internet to ask a group of people their opinion on one or more specific topics, allowing for trade-offs between participants. Generally, an agency consults a group of people to get their thoughts on an issue when a project or a policy is being developed or implemented, e.g. to identify or access options, or to evaluate ongoing activities. This enables governments to draft more citizen-centered policy.

As the Internet gains popularity with the public for voicing opinion, citizen participation in policy development through cyberspace is changing the face of democracy. The rise of the Internet has given way to buzzwords such as e-democracy, referring to citizen participation in politics, government issues and policy development through electronic technologies and the Internet, and eGovernment, pertaining to providing citizens with government information and services online. Online consultation is an extension of these concepts. Through online engagement, government is enabled to hold interactive dialogues with the public as they have a more direct route to citizen opinion via the Internet.

E-consultations constitute interactive "tell-us-what-you-think" on-line platforms where ordinary citizens, civic actors, experts, and politicians purposively assemble to provide input, deliberate, inform, and influence policy and decision making. Initiated by political institutions, non-state actors (or jointly), e-consultations vary in approach, goals, selection of target groups, breadth of themes or issue areas, in the use of technical tools and administrative level at which they are launched (Gøtze 2001).

E-consultations are also more formal and structured than discussions in the informal virtual public sphere. They tend to have a set duration, agenda, employ the use of moderators, with topics for discussion pre-defined by the host. Given that it is government agencies that in most cases initiate e-consultations, relationships among participants are seen to be asymmetric where the actors involved – politicians, policy experts, citizens – differ in their level of authority, expertise and access to decision-making processes. Arguably, as it will be later discussed, these implicit structural dynamics distinctly influence the e-consultation process.

Types of e-consultations

There are five common types of e-consultations. The simplest involves *question and answer discussion forums* integrated within an existing government website. Here citizens are invited (by initiators) to post their views, questions and concerns, and receive feedback from respective authorities. Q & A forums can take place synchronously (in real time) or asynchronously with pre-moderation and lag time between responses where views posted are pre-read by a designated moderator. A good example of the synchronous kind are the

5. diskussionforen*'* hosted by the German Bundestag1 or the 'webchats series' in the UK2 where a selected MP (or a group of) is pre-scheduled to interact with and directly answer questions posted by the public on-line.
6. *On-line polls* are the second type of e-consultations offering quick snapshots or measurements of civic temperature on a specific public issue.
7. *E-petitions* or on-line testimonies are another form of e-consultations which enable citizens, individually or in a

group, to table issues, complaints or requests directly to the government.

8. *E-panels* are more sophisticated versions of on-line consultations. They invite a (self-selected or recruited) sample group of citizens – a panel – to provide and exchange their views via on-line discussion forums, online surveys, live chats, single polls or votes centered around a common topic or policy initiative.

Practical Benefits of E-Consultations

Being given the opportunity to provide feedback and to influence the political process outside the electoral cycle is a distinct feature of public consultations. But what is the value added of doing so on-line? Or in Bimber's (1999) words, does the medium matter? The following section discusses some of the practical benefits as well as normative pretexts under which e-consultations are launched.

Convenience, expediency and flexibility

For government institutions, Internet promotes efficiency and effectiveness through the reduction of transactional costs (Tolbert and Mossberger, 2006). For ordinary citizens who have their own lives with multiple activities and responsibilities, the incentives for e-participation lie in the practical convenience of on-line communication.

Enhanced interactivity

Unlike traditional print and television media which act as one-way intermediaries of public catchallism, Internet applications enable multi-level (one-to-one, one-to-many, many-to-one) and more direct modes of communication.

Face-less interface

Virtual interactions are equally seen to accommodate different communication skills. By requiring face-less interface, written inputs rather than physical presence, on-line communication removes the 'inhibiting effect' of awkwardness and shyness that prevents some people from speaking in larger group contexts (Wallace, 1999; Dutton, 1996). Thus by eliminating certain communicative barriers, the on-line environment is seen to offer favorable incentives for deliberative discourse as well as for the participation of those who would otherwise be excluded.

Normative pretexts

In addition to their capacities to remove practical barriers to participation, e-consultations are guided by normative pursuits aimed at remedying some of the democratic deficits in status quo political processes.

Feedback and mutual learning

Closely linked to the first premise, e-consultations' facilitation of public input and reciprocal feedback between the government and the governed is also assumed to enhance *democratic legitimacy* and *better policies*.

em as such.

8.1.1 ***Deliberation***

The third normative pursuit associates public consultations with *deliberative democracy*. Deliberation unlike other forms of discourse, proponents argue, catalyses the articulation of conflictual preferences within society motivated by discursive exchanges and genuine consensus formation based on moral, rational, practical judgement, mutual respect and social learning (Dryzek, 1990; Habermas 1984, 1991; Fishkin, 1991; Gutmann and Thomson, 2004).

Civic Education

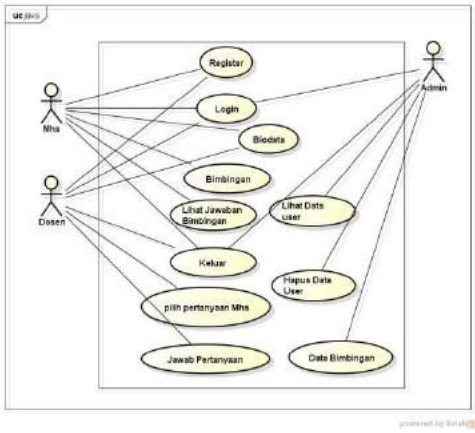
In addition to offering conducive conditions for convenient and inclusive communication practices, e-consultations are also seen as opportunities for civic education.

Result

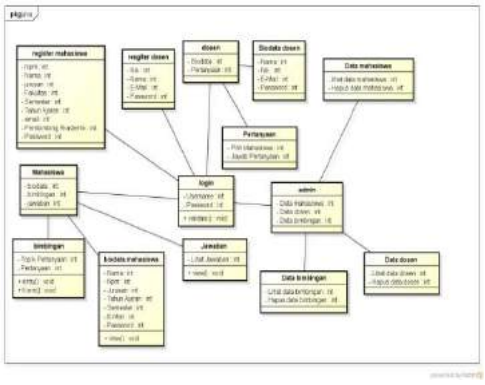
The design of UML e-Consultant

ISSN 2301-6590

From this picture below is designed acdemic mentoring that will be formed, the system designed is formed by several system parts elements.



Draft Class Diagram



User Interface

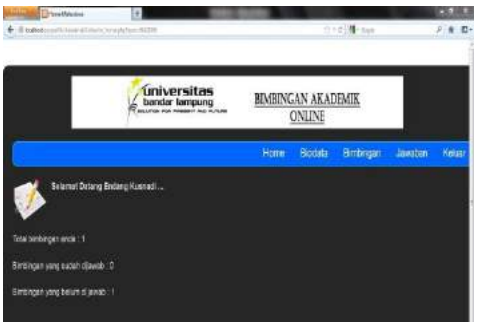
Here are some views between user to interact with the system

1. Display Login and Register.

Picture 4.2 Display register login and academic counselors Applications

This display is used to login for students, faculty, administrators, and registers for the students and lecturer who don't have registered yet.

2. Students display form



Picture 4.3 form student

For accessing this form, the students is asked to login first and only the students that allowed to enter this site. For the students who don't register yet as the user , you can directly register by filling the registration form.

3. Display student guidance

Picture 4.4 form student guidance

This display appears if students want to do guidance

4. Display lecturers form

 ISSN 2301-6590

Picture 4.5 form a lecturer

To access this form lecturers are asked to login first and only the lecturers are allowed to enter the area form the lecturers. For lecturers who are not registered as a user can directly register by register first dahulu.The lecturers' view who successfully login form shown in picture 4.4

6. Display Form Admin

Picture 4.6 form admin

Before entering the form admin, admin must log in first, after successful login will look like in figure 4.4. Here admin can look at student data, the lecturer's data, student guidance and data and can remove the data.

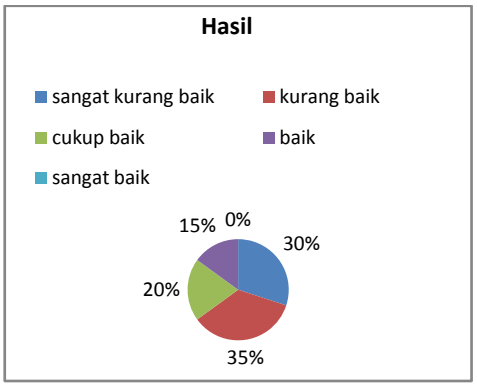
Discusiion

Output Analysis

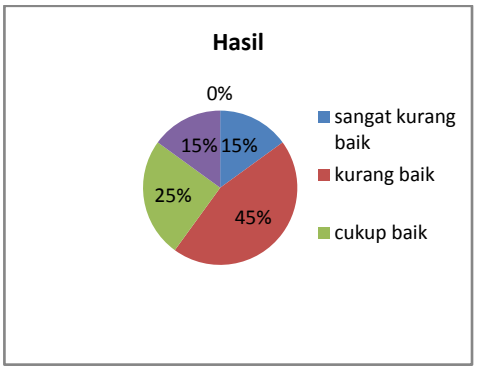
This evaluation was connducted to determine how the proces, the tool of guidance and the tool to determine whether the existing guidance on the computer science faculty has been running well, this test is applied using sampling random with 78 respondents from the students. In this case using pre-test and post-test to know the impact of apply e-consultations on the process of mentoring academic.

Pre Test (Prior to the adoption of e-Consultations)

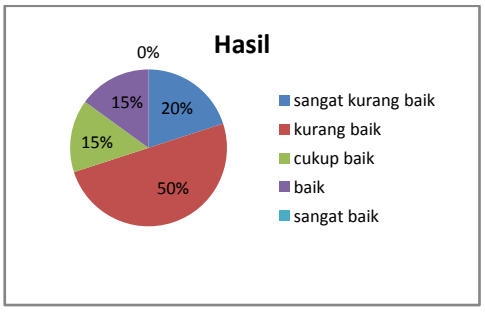
1. Efficiency guidance



2. Willingness time guidance

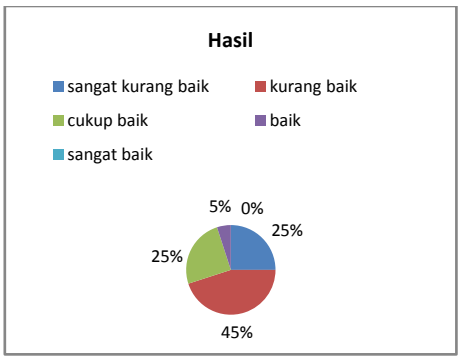


3. The duration of the meeting in the academic advising process

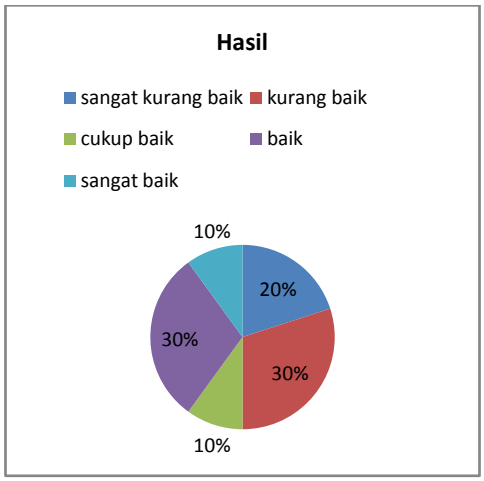


4. Convenience and flexibility in presenting problems in academic advising

 ISSN 2301-6590



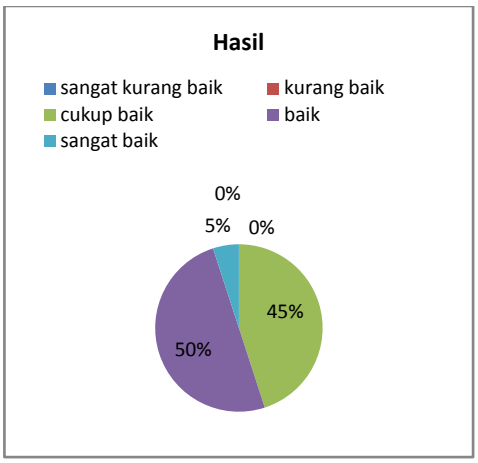
5. The need for other alternatives as a medium to deliver an opinion in academic activities



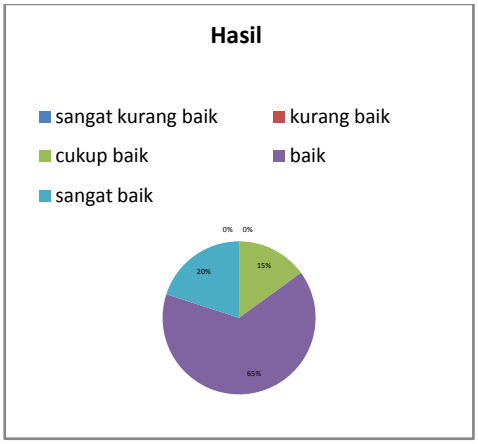
Post Test (after the application of e-Consultations)

After the program has been tested, the author do some evaluations to some respondents to know how the implementation of mentoring academic based on web and notification email and also to know whether guidance intensity between students and lecturers, is it increased or not in computer science faculty.

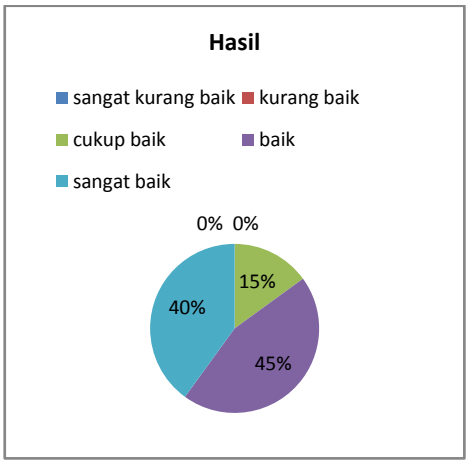
1. Efficiency guidance



2. Availability of time and convenience in implementing student academic guidance

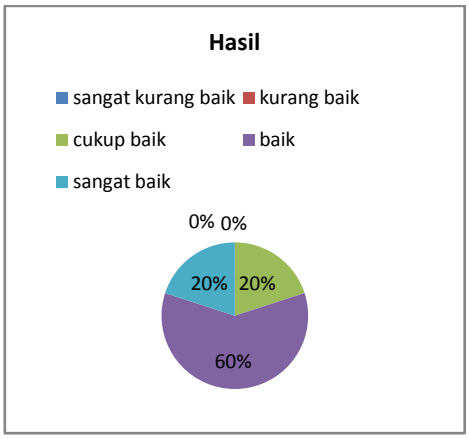


3. Convenience and flexibility in using the expression e-Consultations



 ISSN 2301-6590

4. Media e-Consultations can help students and teachers in academic coaching activities



The Conclusion

Based on the results of the observation, which is begun from the observation phase to application design. Authors conclude that:

1. From the results of questionnaires Pre Test and Post Test so academic guidance application based on web and notification email can be concluded that it can increased the guidance intensity.

2. How to develop applications to facilitate the process between students with guidance counselors and determine the level of guidance itensitas student in the Faculty of Computer Science University of Bandar Lampung using a web-based application of academic counselors and e-mail notification so that it can be used as a reference to improve student guidance itensity

3. This academic guidance application based on web and notification email is only able to handle guidance activity between student and lecturer with using text mode, message.

4. Guidance with the application process using a web-based academic tutors and e-mail notifications can help the interaction between students and counselors so that we can help the process guidance is not limited to time and space

References

10. Dryzek, J. (2000) *Deliberative Democracy and Beyond: Liberals, Critics, Contestations*. Oxford University Press.
11. Dutton, W. H. (1996) Network rules of order: Regulating speech in public electronic forums. *Media, Culture and Society*. Vol.18, p.269-290.
12. Fishkin, James. (1991) *Democracy and deliberation : New directions for democratic reform*. Yale University Press.
13. Fishkin, James. (1993) *Democracy and Deliberation: Toward a Self-reflective society*. Yale University Press.
14. Habermas, Jurgen. (2005) Concluding comments on empirical approaches to deliberative politics. *Acta Politica*, Vol.40, pp 384-392.
15. Habermas, Jurgen. (1991) (trans.) McCarthy, T. and Lawrence, F. *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*. MIT Press, Cambridge, Massachusetts.
16. Habermas, Jurgen, (trans.) McCarthy, T. (1984) *The Theory of Communicative Action, Volume 1: Reason and the Rationalization of Society*. Beacon Press, Boston.
17. Wallace, P. (1999) *The Psychology of the Internet.* Cambridge: Cambridge University Press.
18. Miarso, Yusuf hadi. 2004. Menyemai Benih teknologi pendidikan, jakarta : Pustekkom departemen pendidikan Nasional.

universitas
bandar lampung

Jl. Z.A. Pagar Alam No.26 Labuhan Ratu
Bandar Lampung 35142 Phone: +62 721 701463
www.ubl.ac.id
Lampung - Indonesia