The Second International Conference on Engineering and Technology Development

2nd ICETD 2013

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

PROCEEDINGS

Hosted by:
Faculty of Engineering and Faculty of Computer Science,
Bandar Lampung University (UBL), Indonesia
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
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 participants. 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 sepuhul 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 grateful 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
PROCEEDINGS

2nd ICETD 2013
The Second International Conference
On Engineering And Technology Development

28 -30 January 2013

INTERNATIONAL ADVISORY BOARD

Y. M Barusman, Indonesia
Ahmad F. Ismail, Malaysia
Mustofa Usman, Indonesia
Moses L. Singgih, Indonesia
Andreas Dress, Germany
Faiz A.M Elfaki, Malaysia
Warsono, Indonesia
Raihan Othman, Malaysia
Zeng Bing Zen, China
Tjin Swee Chuan, Singapore
Khomsahrial R, Indonesia
Rony Purba, Indonesia
Alex Tribuana S, Indonesia
Hon Wei Leong, Singapore
Imad Khamis, USA
Rozlan Alias, Malaysia
Rudi Irawan, Indonesia
Gusri Ibrahim, Indonesia
Jamal I Daoud, Malaysia
Riza Muhida, Indonesia
Heri Riyanto, Indonesia
Agus Wahyudi, Indonesia
Lilies Widojoko, Indonesia
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 Wahyuingsih, 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
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

Receptionist
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 Accommodation
Irawati, SE
Desi Puspita Sari, S.E
Tanto Lailam, S.H
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

**Consumption**
Dra. Yulfriwini, M.T
Wiwin Susanty, S.Kom., M.Kom
Fenty Ariani, S.Kom., M.Kom
Ren Nursyanti, S.Kom., M.Kom
Erlangga, S.Kom
Arnes Yuli Vandika, S.Kom

**Facility and Decoration**
Siti Rahma Wati, SE
Dina Ika Wahyuningi, S.Kom
Zainal Abidin, SE
Ahyar Saleh, SE
Eko Suwardiyanto
Wagino
Sugimin
# Table Of Content

Organizing Committee ........................................................................................................ i

Table Of Content ............................................................................................................... v

Keynote Speaker

1. Recent Advances in Biofuel Cell and Emerging Hybrid System  
   **Abdul Aziz Ahmad and Raihan Othman** ................................................................. 1

2. Waste Utilization Study Tailing Gold Mine in Way Linggo-Lampung, as Fine Aggregate Materials for Producing Mortar Materials based on concept of Green Technology  
   **Lilies Widojoko & Susilawati** .................................................................................. 8

3. Infrastructure Health Monitoring System (SHM) Development, a Necessity for Maintenance and Investigation  
   **Prof. Dr. Priyo Suprobo, Faimun, Arie Febry** ...................................................... 17

4. Four Phases Quality Function Deployment (Qfd) By Considering Kano Concept, Time And Manufacturing Cost  
   **Prof. Dr. Moses L Singgih, Dyah L. Trenggonowati, Putu D. Karningsih** .... 22
Speaker

1. Comparative Analysis for The Multi Period Degree Minimum Spanning Tree Problem
   Wamiliana, Amanto, and Mustofa Usman .................................................. 39

2. Choosing The Right Software In Supporting The Successful of Enterprise ERP Implementation
   Yodhie Yuniarthe, Idris Asmuni ................................................................. 44

3. Climate Adaptive Technology In Maintaining Vernacularism Of Urban Kampong
   Case study: KampungAdat (Indiginous) Mahmud, Bandung District, West Java
   Marcus Gartiwa ............................................................. 50

4. The Prospect Of Diesohol In Facing Fossil Fuel Crissis
   M.C. Tri Atmodjo .......................................................... 63

5. The Potential Of Agriculture And Forestry Biomass Wastes As Source Of Bioenergy
   Hardoyo  ........................................................................ 66

6. The Importance of Education Facility as Sustainable Urban Generation Tool
   Fritz Akhmad Nuzir, Haris Murwadi and Bart Julien Dewancker .................. 71

7. The implementation of Secton Method for Solving Systems of Non Linear Equations
   Nur Rokhman .............................................................. 80

8. Quality Control Analysis Into Decrease The Level Defects On Coffee Product
   Heri Wibowo, Sulastri and Emy Khikmawati ............................................. 85

9. Public Transportion Crisis In Bandar Lampung
   Ida Bagus Ilham Malik ........................................................................ 89

10. Geospatial Analysis of Land Use Change in Way Kuripan Watershed, Bandar Lampung City
    Candra Hakim Van Rafi‘i1, Dyah Indriana Kusumastuti2, Dwi Jokowinarno ................. 99

11. Material Utilization Technology Of Agriculture And Forestry Waste
    Hardoyo ........................................................................ 105

12. The Supply Chain System Of Cassava On The Tapioca Industry
    Hardoyo ........................................................................ 108

13. Glass Technology In Natural Light Glasses On Aperture Element In The Architecture World
    Muhammad Rija & MT Pedia Aldy .................................................................. 113
<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Authors</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>An Eksperimental Permeable Asphalt Pavement Using Local Material Domato Stone On Quality Of Porous Asphalt</td>
<td>Firdaus Chairuddin, Wihardi Tjaronge, Muhammad Ramli, Johannes Patanduk</td>
<td>117</td>
</tr>
<tr>
<td>15</td>
<td>Coordination Of Architectural Concepts And Construction Systems</td>
<td>Eddy Hermanto</td>
<td>129</td>
</tr>
<tr>
<td>16</td>
<td>Seismic Assessment of RC Building Using Pushover Analysis</td>
<td>Riza Ainul Hakim</td>
<td>136</td>
</tr>
<tr>
<td>17</td>
<td>Viscosity and Liquidity Index Relation for Elucidating Mudflow Behavior</td>
<td>Budijanto Widjaja and Shannon Hsien-Heng Lee</td>
<td>143</td>
</tr>
<tr>
<td>18</td>
<td>The Use of Pozzolanic Material for Improving Quality of Strontium Liquid Waste Cementation in Saline Environment during Nuclear Waste Immobilization Process</td>
<td>Muhammad Yusuf, HayuTyasUtami, Tri SulistiyoHariNugroho, SusetyoHarioPutero</td>
<td>148</td>
</tr>
<tr>
<td>19</td>
<td>Geospatial Analysis Of Land Use And Land Cover Changes For Discharge At Way Kualagaruntang Watershed In Bandar Lampung</td>
<td>Fieni Yuniarti, Dyah Indriana K, Dwi Joko Winarno</td>
<td>153</td>
</tr>
<tr>
<td>20</td>
<td>Wifi Network Design For High Performance</td>
<td>Heru Nurwarsito, KasyfulAmron,BektiWidyaningsih</td>
<td>161</td>
</tr>
<tr>
<td>21</td>
<td>Studi on The Efficiency Using Nature Materials in The Structural Elements of Reinforced Concrete Beam</td>
<td>Yasser , Herman Parung , M. Wihardi Tjaronge, Rudy Djamaluddin</td>
<td>167</td>
</tr>
<tr>
<td>23</td>
<td>Energy Utilization Technology Of Agriculture And Forestry Waste</td>
<td>Hardoyo</td>
<td>185</td>
</tr>
<tr>
<td>24</td>
<td>Implementation Of Fuzzy Inference System With Tsukamoto Method For Study Programme Selection</td>
<td>Fenty Ariani and Robby Yuli Endra</td>
<td>189</td>
</tr>
<tr>
<td>25</td>
<td>The Analysis of Video Conference With ITU Standarization (International Telecommunication Union) That Joining in Inherent At Bandar Lampung University</td>
<td>Maria Shusanti F, Happy Reksa</td>
<td>201</td>
</tr>
</tbody>
</table>
26. The E-internal audit iso 9001:2008 based on accreditation form assessment matrix in study program for effectiveness of monitoring accreditation
   Marzuki, Maria Shusanti F. ................................................................. 207

27. The Developing Of e-Consultations For Effectiveness of Mentoring Academy
   Ahmad Cucus, Endang K ................................................................. 214

28. The Evaluation of information system performance in higher education case study with EUCS model at bandar lampung university
   Reni Nursyanti, Erlangga ............................................................. 221

29. The Analysis Of History Collection System Based On AndroidSmartphone With Qr Code Using Qr CodeCase Study: Museum Lampung
   Usman Rizal, Wiwin Susanty, Sutrissno ......................................... 230

30. Application of Complaint Handling by Approach Model of ISO 10002 : 2004 to Increase Complaint Services
   Agus Sukoco and Yuthsi Aprilinda ............................................. 235

31. Towards Indonesian Cloud Campus
   Taqwan Thamrin, Ing Lukman, Dina Ika Wahyuningsih .................. 252

32. Bridging Router to ADSL Modem for Stability Network Connection
   Arnes Yuli Vandika and Ruri Koesliandana .................................... 257

33. The Effect of Use Styrofoam for Flexural Characteristics of Reinforced Concrete Beams
   Yasser, Herman Parung, M. Wihardi Tjaronge, Rudy Djamaluddin ...... 261

34. The Estimation Of Bioethanol Yield From Some Cassava Variety
   M.C. Tri Atmodjo ........................................................................ 273

35. Effect of Superficial Velocity of Pressure Difference on The Separation of Oil And Water by Using The T-Pipe Junction
   Kms. Ridhuan and Indarto ............................................................ 277

36. The use of CRM for Customer Management at Cellular Telecommunications Industry
   Ayu Kartika Puspa ...................................................................... 293

37. Indonesian Puslit (Centre Of IT Solution) Website Analysis Using Webqual For Measuring Website Quality
   Maria Shusanti Febrianti and Nurhayati ....................................... 297

38. The E-internal audit iso 9001:2008 based on accreditation form assessment matrix in study program for effectiveness of monitoring accreditation
   Marzuki, Maria Shusanti F. ............................................................. 307
   Agus Sukoco ................................................................. 320

40. Value Analysis Of Passenger Car Equivalent Motorcycle (Case Study Kartini Road Bandar Lampung)
   Juniardi, Aflah Efendi ..................................................... 337

41. Alternative Analysis Of Flood Control Downstream Of Way Sekampung River
   Sugito, Maulana Febramsyah ............................................. 347

42. Analysis Of Fitness Facilities And Effective Use Of Crossing Road
   Juniardi, Edi Haryanto ..................................................... 353

43. Study On Regional Development Work Environment Panjang Port Lands In Support Bandar Lampung City As A Service And Trade
   Ir. A. Karim Ikhsan, MT, Yohn Ferry .................................. 359

44. Analytical And Experimental Study Bamboo Beam Concrete
   Hery Riyanto, Sugito, Juli ................................................. 370

45. Comparative Analysis Of Load Factor Method Static And Dynamic Method (Case Study Akdp Bus Route Rajabasa - Bakauheni)
   A. Ikhsan Karim, MT., Ahmad Zulkily ................................ 378

46. Optimization Utilization Of Water Resources Dam Batutegi Using Method Of Linear Program
   Aprizal, Hery Fitriyansyah ................................................. 386

47. Characteristics Generation Traffic Patterns And Movement In Residential Area (Case Study Way Kandis Residential Bandar Lampung)
   Fery Hendi Jaya, Juniardi ................................................ 392

48. Use Study On Slight Beam Reinforced Concrete Floor Plate In Lieu Of Secondary Beam
   Hery Riyanto, Sugito, Lilies Widodjoko, Sjamsu Iskandar .......... 399

49. Observation Of The Effect Of Static Magnetic Field 0.1 Mt On A-Amylase Activity In Legume Germination
   Rochmah Agustrina, Tundjung T. Handayani, and Sumardi ........ 405

50. Effectiveness Analysis Of Applications Netsupport School 10 Based Iso / Iec 9126-4 Metrics Effectiveness
   Ahmad Cucus, Nelcy Novelja ............................................. 413

51. Comparative Performance Analysis Of Banking For Implementing Internet Banking
   Reza Kurniawan ............................................................... 418
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
1marzukird@yahoo.com
2suzanne_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 prepare 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

INTRODUCTION

Accreditation is a form of external quality warranty 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 systematically, 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 mandatory, 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 fulfilled 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

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 see a the significant difference, using the following equation:

\[ vt = \sum_{i=1}^{n} \text{Capai}_i \times \text{Bobot}_i \]

\[ S = \sum (vt_1 - vt_2) \]

\[ \text{Peningkatan} = \left( \frac{S}{vt_1} \right) \times 100\% \]

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.

Picture 2. Use Case

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.

Pseudo-code: Audit

Narrative: Compare audit with standard procedure
Input: Tabel auditor, slock, standard, temuan, data Jadwal
Output: Temuan Rincian

1. START
2. Input User, Password
3. Verification
4. If User equal "MR"
   Load MRPage
   Set Suhker
   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
   Select Audit Number
   Input nilaiCapai
   Stop=Stop+NilaiCapai*bobot
   Input Teman, Kode
   Save Temuan Rincian
   End if
   End if
5. END

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.

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.

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.

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 scoring on every standard that has been taken from the accreditation assessment matrix.

4. GUI Auditor

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

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.
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.

Table 1. Implementation I

| No. | Item Position | Performance | Conclusion | Result | |  |
|-----|---------------|-------------|------------|--------|--|
| 1   | 1.1.a         | Tertama     | 3          | 1.04   | 3.32  |
| 2   | 1.1.6         | Tertama     | 3          | 1.04   | 3.32  |
|     |               |             |            |        |       |
|     |               |             |            |        |       |
|     |               |             |            |        |       |
|     |               |             |            |        |       |
|     |               |             |            |        |       |
|     | 5.12          | Tertama     | 4          | 1.88   | 7.52  |
|     | 5.1.1         | Tertama     | 4          | 1.88   | 7.52  |
|     | 5.12.2        | Tertama     | 4          | 1.88   | 7.52  |
| Total|               |             |            |        | 34.5  |

| Nila Akhir| 38.4 |

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

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.
X = Implementasi II - Implementasi I
(1)

\[ X = 251.3 - 184.7 = 66.6 \]

Peningkatan = \( \frac{X}{\text{Implementasi I}} \times 100 \)
(2)

\[ \text{Peningkatan} = \frac{66.6}{184.7} \times 100 = 36.058\% \]

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

CONCLUSION

After analyzing the results of the implementation I and implementation II, this observation finds some important innovation that can be formulated on the conclusion, such as:

1. Improved assessment (final grade) in this observation showed an increase in the value of the accreditation is 36.058%.

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

REFERENCES


Medium-Sized Enterprises. Volume (3)
Issue (3)