

ANALYSIS OF INFORMATION SYSTEMS INPASSING FUNCTIONAL POSITIONS OF ENGINEERS AND ENGINEERS ON-LINE

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ABSTRACT

The development of information systems inpassing functional positions of engineers and engineers follow the development of functional position development service systems that strengthen the effectiveness and structure of functional position management related to related positions. The development of guaranteed availability of the functional position opening system provides more integrated and sustainable management flexibility of the development of functional positions into a more actualized system to facilitate interrelated dependence with the relevant reality. Methodology carried out with the inclusion of waterfall systems in sequence with analysis, design up to the code generation of the program and testing the system. Adjustment of the system can be done with treatment that is very related to the deepening of the detail and carried out well.

Keywords: Inpassing management, functional positions, engineers, on-line

INTRODUCTION

The development of functional positions of engineers and positions of engineering technicians is an improvement of the management of the activities of both positions with the inclusion of an inpassing system for both positions. Improvement of the taking of prospective organizers from structural positions into a part that also continues to be developed and adapted to the rules that apply in our country.

This inpassing system is expected to solve various problems of regulatory interrelationship in the process of taking functional positions related to structural positions that will be abandoned and continue the process of nation building based on the assessment of functional positions mentioned above.

In the development of science and technology that includes the development of knowledge, its development and includes maintenance and added value requires several criteria of adjustment and adjusted to the degree of validity in the administrative process and its dependence with the applicable insurance. Inpassing Information System functional position of Online Engineer and Litkayasa (SIIP-LO) is one of the outputs and at the same time an indicator of the performance of *pusbindiklat* Agency for The Assessment and Application of Technology.

Therefore it needs to be planned, managed, and well documented. Through the identification of Inpassing Information System Development Of Online Engineers and Engineers (SIP-LO). to store and monitor or monitor the development of inpassing Functional Department of Engineers and Engineers *litkayasa* in the Ministry or Institution (K/L).

The scope show that in this research the problems include: The contribution of the implementation of the inpassing system analysis program is carried out in the following stages: consisting of analysis and design, programming; as well as functional testing of

applications that overall provide comprehensive input of the functional position in passing system related to the functional positions of engineers and engineers.

Analysis and design: Analysis of running system and needs in terms of Software System Description, Determining Functional Needs for the feasibility study aspects of technology systems and System modeling perform system modeling in accordance with the needs in terms of technical aspects of use case, data requirement & E-R Diagram and non-functional needs as expected.

The result plan is from The Online Engineer and Litkayasa In passing Information System (SIIP-LO) to provide convenience for managers and prospective functional officials of engineers and engineers in the submission of in passing into the functional positions of engineers and engineers, as well as a team of in passing assessors in conducting competency assessments and tests to prospective functional stakeholders engineers and engineers litkayasa more accurately.

The purpose of the report that conducting analysis and design and modeling of the system against SIIP-LO through the analysis of running systems and software needs. as well as System Design and Database Design siip-LO application creation and coding programs by installing several software that supports: Apache 2.4, MariaDB, PHP 7.2 and phpMyAdmin.

System programs show that analysis & design is a work package that is responsible for conducting system analysis that runs to build and maintain agreements with users and other stakeholders regarding the system to be developed. Needs in terms of Providing a better understanding to system developers about the needs of the system to be built, determining the boundaries of the system, and determining the user-interface for the system, focusing on the needs and objectives of the user.

Modeling the system in accordance with functional and non-functional needs and in terms of technical aspects of use case, data requirement & E-R Diagram. Designing the system to know the operations in the modules / components, both interface and server module, and know the right design for data modeling; Database design of SIIP-LO application in terms of technical aspects consisting of implementing conceptual design (DRO), initial design and detailed design made to fit the performance as expected.

METHODS

The method we use is "Waterfall Model" which is divided into 4 (Stages) through analysis of software needs, system design, program code and testing system that is combined into the model mentioned above.

Software Needs Analysis

The process of collecting needs is done intensively to specify the needs of the software in order to understand what kind of software is needed by the user.

Design

At this stage the author tries to design the user interface of the application. Where the website to be created in accordance with the procedures that have been analyzed.

Program Code Generation

At this stage the author does website coding by first installing some software that supports: Apache 2.4, MariaDB, PHP 7.2 and phpMyAdmin. Author encoding is created based on the design that has been created in the design stage.

Testing

In order for the website created by the author to provide actual results as needed, the author conducts testing by means of black box testing by observing the results of test data

execution and functional software, especially on the input and output of the website (whether it is in accordance with what is expected or not).

DISCUSSION

Scope of Operation

The SIIP-LO application will be developed on centos 7 linux operating system environment. required in the development of SIIP-LO applications. Here are the supporting software needs: Apache 2.4; MariaDB; PHP 7.2 and phpMyAdmin

Apache Installation 2.4

Apache can be installed by default because Apache already has a CentOS software epository. Just run the command in the terminal: yum install httpd -y

MariaDB installation

MariaDB is already installed in the CentOS repository, just run the Yum command: yum install mariadb-server mariadb -y run MariaDB and activate it in boot mode : systemctl start mariadb systemctl enable mariadb minimize security risks in default mode: mysql_secure_installation fill in the root password for security in accessing the database.

PHP installation

PHP is required to process PHP code, access databases and serve content to Apache. To install the required PHP package. Run commands in the terminal yum install php php-mysql -y If php is successfully installed on the server can be checked by creating a phpinfo() script, then run on the browser: PhpMyAdmin installation The first stage, which is to install the EPEL repository, run the command in the terminal: rpm -iUvh <http://dl.fedoraproject.org/pub/epel/epel-release-latest-7.noarch.rpm> In the second stage, run the command in the terminal: yum install phpMyAdmin -y phpMyAdmin configuration in the /etc/httpd/conf.d/phpMyAdmin.conf file

```
<Directory /usr/share/phpMyAdmin/>
AddDefaultCharset UTF-8

<IfModule mod_authz_core.c>
# Apache 2.4
<RequireAny>
Require ip 127.0.0.1
Require ip ::1
</RequireAny>
</IfModule>
<IfModule !mod_authz_core.c>
# Apache 2.2
Order Deny,Allow
Allow from All
Allow from 127.0.0.1
Allow from ::1
</IfModule>
</Directory>

<Directory /usr/share/phpMyAdmin/setup/>
<IfModule mod_authz_core.c>
# Apache 2.4
<RequireAny>
Require ip 127.0.0.1
Require ip ::1
</RequireAny>
</IfModule>
<IfModule !mod_authz_core.c>
# Apache 2.2
Order Deny,Allow
Allow from All
Allow from 127.0.0.1
Allow from ::1
</IfModule>
</Directory>
```

Figure 1: PhpMyAdmin configuration design

Next restart apache. To check phpMyadmin installed can be accessed at the address `http://[server ip]/phpmyadmin` by using a browser.

Application Framework

The framework used for the development of SIIP-LO applications is Yii2. Yii is a common web programming framework, which means that it can be used to develop all kinds of Web applications that use PHP.

Yii2 installation

Install composer `curl -sS https://getcomposer.org/installer | php` `mv composer.phar /usr/local/bin/composer`

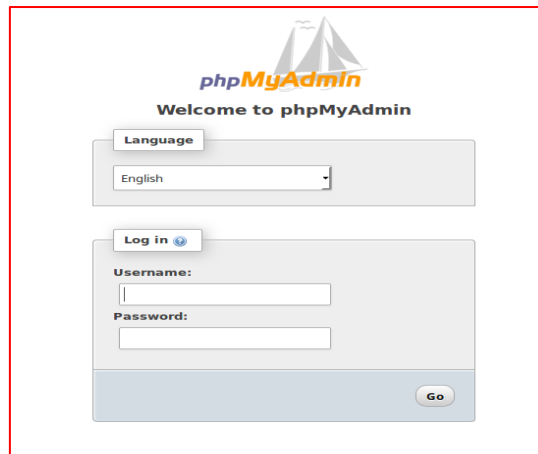


Figure 2 : php system My Admin

Install Yii2

To install Yii2 can type the following command on the terminal: `composer global require "fxp/composer-asset-plugin:^1.4.1"` `composer create-project --prefer-dist yiisoft/yii2-app-basic basic` Once the installation is complete, to make sure yii is already installed can use the Built-in PHP web server (<https://secure.php.net/manual/en/features.commandline.webserver.php>) by running the command in the following web directory project: `php yii serve` Next access the `http://localhost:8080` URL

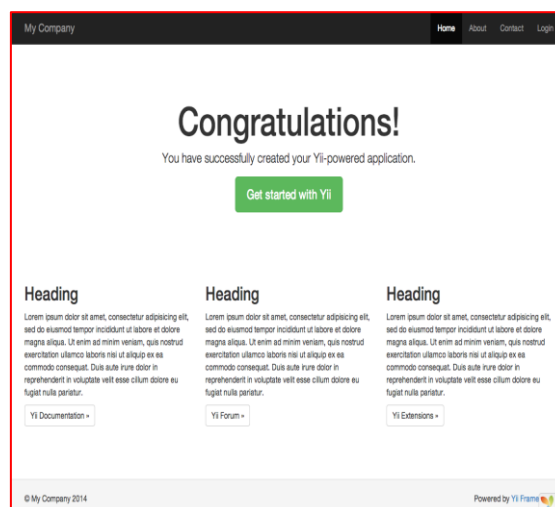


Figure 3 : HTTP URL

In a SIIP-LO application development environment that uses Apache as a web server, the following apache configuration changes are required, in the /etc/httpd/conf/httpd.conf file:

```
# Set document root to be "basic/web"
DocumentRoot "path/to/basic/web"

<Directory "path/to/basic/web">
    # use mod_rewrite for pretty URL support
    RewriteEngine on
    # If a directory or a file exists, use the request directly
    RewriteCond %{REQUEST_FILENAME} !-f
    RewriteCond %{REQUEST_FILENAME} !-d
    # Otherwise forward the request to index.php
    RewriteRule . index.php

    # ...other settings...
</Directory>
```

Figure 4 : apache configuration

Yii2 Framework Structure

basic/	path aplikasi dasar
composer.json	digunakan oleh Composer, package information
config/	berisi konfigurasi aplikasi dan yang lain
console.php	konfigurasi aplikasi konsole
web.php	konfigurasi aplikasi web
commands/	contains console command classes
controllers/	contains controller classes
models/	contains model classes
runtime/	contains files generated by Yii during runtime, such as logs and cache files
vendor/	contains the installed Composer packages, including the Yii framework itself
views/	contains view files
web/	application Web root, contains Web accessible files
assets/	contains published asset files (javascript and css) by Yii
index.php	the entry (or bootstrap) script for the application
yii	the Yii console command execution script

Figure 5 : Yii framework structure

Yii implements the model-view-controller (MVC) architecture pattern, which is reflected in the organization directory above. Models directory contains all

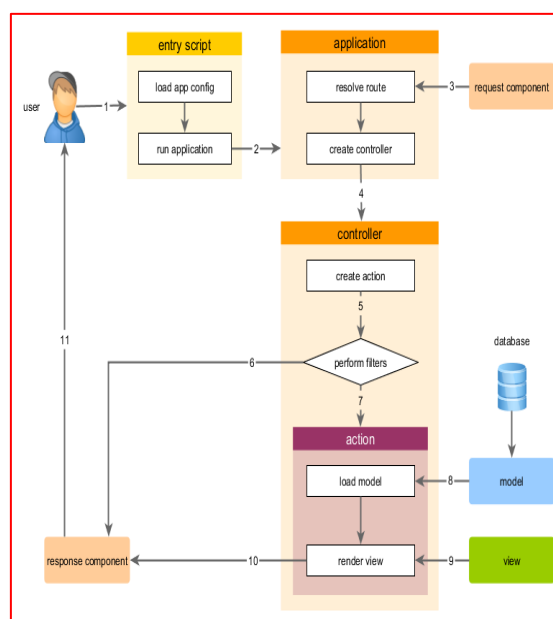


Diagram image 6 shows how the application handles requests

Software System Description

The system can be run from a variety of computers by using a minimum screen resolution of 1024x768. The system is built using HTML, CSS, Javascript on the programming interface, php programming language for server programming, as well as using MySQL application as database and Apache as web server. The program is installed on a web server and accessed via the internet using a browser

Functional Needs

This needs analysis aims to find out what is needed in the new system design. There are several kinds of requirements according to Sommerville are:

1. User Requirement is a statement about the services provided by the system and about its operational limitations. This statement can be completed with images or diagrams that can be easily understood.
2. System requirement is a set of services or system capabilities and their limitations are written in detail. System requirement document is often called "functional specification", must explain precisely and in detail.

Table 1; functional SIIP-LO need

KODE	Nama Fungsi	Deskripsi
SIIP-LO -F.1001	Login	Pengguna wajib melakukan login sebelum menggunakan sistem
SIIP-LO -F.1101	Pendaftaran Perekayasa	Pengguna dapat mendaftarkan pegawai K/L sebagai calon Perekayasa
SIIP-LO -F.1102	Pendaftaran Teknisi Litkayasa	Pengguna dapat mendaftarkan pegawai K/L sebagai calon Teknisi Litkayasa
SIIP-LO -F.1201	Status Inpassing	Menampilkan status proses inpassing pada setiap calon perekayasa / teknisi litkayasa
SIIP-LO -F.1311	Penerimaan Berkas	Sistem memiliki menu untuk pengelolaan penerimaan berkas berikut pemberian penomoran pada berkas
SIIP-LO -F.1321	Verifikasi Berkas	Sistem memiliki menu untuk menampilkan item verifikasi, dan melakukan verifikasi pada setiap berkas yang sudah diterima
SIIP-LO -F.1331	Penilaian	Sistem dapat melakukan proses penilaian
SIIP-LO -F.1332	Mencetak Dokumen PAK dan Surat Rekomendasi	Sistem dapat mencetak Dokumen PAK Inpassing dan surat rekomendasi
SIIP-LO -F.1400	Mengelola Data Master	Sistem dapat mengelola data master berupa: Tingkat Pendidikan, Bidang Keahlian, Pangkat, Instansi, Unit Kerja dan Item Verifikasi

Limitation

The limitations used in SIIP-LO development are:

1. Must be connected to the Internet

2. The Ministry / Institution can only register the data of prospective participants Inpassing Engineer / Technician Litkayasa, files in physical form remains sent to the Pusbindiklat BPPT.

Operating System Environment

Operating System Definition is software used to control resources during the process. Operating System functions are allocating memory and work, and scheduling jobs. The server-side software required by SIIP-LO is:

- Operating System : Linux Centos 7
- Web Server: Apache 2.4
- Scripting Language: PHP 7.2+
- DBMS: MySQL
- Framework: Yii2

Detailed Description of Needs

External Interface Needs

User Interface

The user interface will be developed using a web base. Users interact with SIIP-LO software through the website browser interface.

Hardware Interface

The minimum hardware requirements required by SIIP-LO are:

- IBM Compatible PC
- Keyboard
- Mouse
- Printer to print PAK Documents / Letter of recommendation

Software Interface

To access SIIP-LO can use a web browser with webkit engine or mozilla.

Communication Interface

All it takes is a server computer and one or more client computers that are connected client-server within the scope of an Internet network or intranet-based Transmission Control Protocol/Internet Protocol (TCP/IP).

Model Use Case

In the context of UML, the conceptualization stage is done by creating a diagram use case which is actually a description of how the software (application) will be used by user.

Architecturally Significant Use Case

Depiction of SIIP-LO architecture in general using use case diagram is as follows: Data Requirements.

Siip-LO data that is static:

- Rank Data
- Functional Job Title Data
- Agency Data
- Work Unit Data
- Education Data
- Area of Expertise Data
- Credit Number Data
- Verification Data

Siip-LO data that is Dynamic:

- Data of Prospective Inpassing Participants
- Inpassing Status Data
- File Receipt Data

b) Security :

The system must also pay attention to the security side, the thing to do is to provide a password (password) to each user (user) to be able to log into the system and access all the data available. The password to be given is distinguished into 2 (two) levels, namely admin and user.

For non-functional requirements more towards the limitations of services or functions provided SIIP-LO

Table 2. Non Functional Needs

Kode	Parameter	Requirement
SIIP-LO -NF.001	Availability	24 jam sehari, 7 hari seminggu
SIIP-LO -NF.002	Reliability	Tidak pernah gagal dalam mendaftarkan calon pejabat fungsional perekayasa dan teknisi litkayasa
SIIP-LO -NF.003	Portability	Mudah diadopsi pada berbagai lingkungan sistem operasi dan berbagai browser internet
SIIP-LO -NF.004	Memory	Menyesuaikan dengan database dan data materi
SIIP-LO -NF.005	Response Time	Mampu menampilkan materi dalam waktu maksimal 30 detik
SIIP-LO -NF.006	Security	Keamanan data di dalam DBMS akan terjaga dengan adanya password
SIIP-LO -NF.007	Komunikasi	Bahasa Indonesia

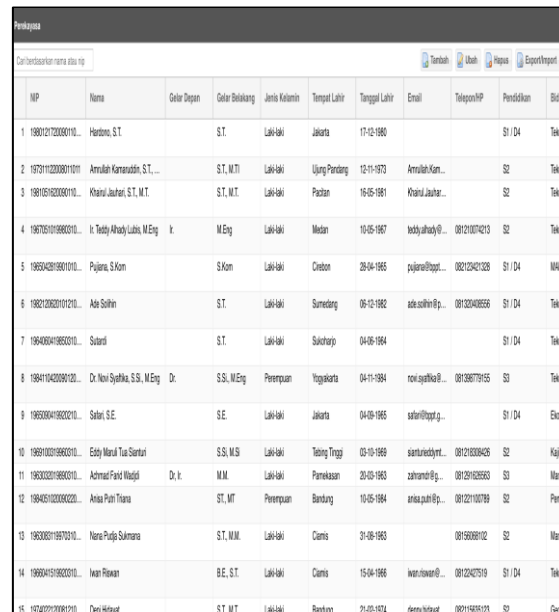
Requirement Parameter Code

- SIIP-LO -NF.001 Availability 24 hours a day, 7 days a week
- SIIP-LO -NF.002 Reliability Never fails in registering prospective functional engineers and engineers
- SIIP-LO -NF.003 Easy Portability adopted in various operating system environments and various internet browsers
- SIIP-LO -NF.004 Memory Customizes with database and material data
- SIIP-LO -NF.005 Response Time Capable of displaying material within a maximum of 30 seconds
- SIIP-LO -NF.006 Security Data security in DBMS will be maintained with password
- SIIP-LO -NF.007 Indonesian Communication

Figure 9. Login page

On each issue is coded to make it easier to perform qualitative analysis. The problem with the P04 code was experienced by 2 users, namely the second and fourth users. This

problem occurs when the user will use the SIIP-LO system, the user is not used to using the system properly and so needs the help of technical people in using the SIIP-LO system.



NIP	Nama	Gelar Depan	Gelar Belakang	Jenis Kelamin	Tempat Lahir	Tanggal Lahir	Email	Telepon/HP	Pendidikan	Bidang
1 198012120080110...	Hendro, S.T.		S.T.	Laki-laki	Jakarta	17-12-1980			S1 / D4	Teknik
2 197311122008011011	Amrullah Kamaruddin, S.T., M...		S.T., M.TI	Laki-laki	Ujung Pandang	12-11-1973	Amrullah.Kam...		S2	Teknik
3 1981051020080110...	Khanul Jaheer, S.T., M.T.		S.T., M.T.	Laki-laki	Pactan	16-05-1981	Khanul.Jaheer...		S2	Teknik
4 198702101980210...	I. Teddy Khady Luthi, M.Eng	I.	M.Eng	Laki-laki	Medan	10-02-1987	teddy.alhady@...	08121017413	S2	Teknik
5 1985042819801010...	Pujana, S.Kom		S.Kom	Laki-laki	Cirebon	28-04-1985	pujana@pppt...	082125421028	S1 / D4	MANA
6 1980212002101210...	Ade Sulhin		S.T.	Laki-laki	Sumedang	06-12-1980	ade.sulhin@p...	08132048556	S1 / D4	Teknik
7 198400419803010...	Scardi		S.T.	Laki-laki	Sukoharjo	04-06-1984			S1 / D4	Teknik
8 1984104020081020...	Dr. Nuri Syehka, S.S., M.Eng	Dr.	S.S., M.Eng	Perempuan	Yogyakarta	04-11-1984	nuri.syehka@...	08128879155	S3	Teknik
9 198500419803210...	Satrio, S.E.		S.E.	Laki-laki	Jakarta	04-09-1985	satrio@pppt.g...		S1 / D4	Elektro
10 198910201980210...	Edy Nurul Taz Santuti		S.S., M.S	Laki-laki	Teling Tringg	02-10-1989	edynur@edynur...	08121000426	S2	Kajian
11 198303201980310...	Adhmat Fard Wajidi	Dr. Ir.	M.M.	Laki-laki	Pamekasan	20-03-1983	adhmat@p...	08120162663	S3	Manaja
12 1984051020080220...	Anisa Putri Triana		ST, MT	Perempuan	Bandung	10-05-1984	anisa.putri@p...	081221100789	S2	Pereng
13 198302019810210...	Nara Pradya Sukmana		S.T., M.M.	Laki-laki	Cianis	31-08-1983		08150080102	S2	Manaja
14 198604151980310...	Iwan Rikwan		B.E., S.T.	Laki-laki	Cianis	15-04-1986	iwan.riwan@...	08122475319	S1 / D4	Teknik
15 19740220198081210	Dendi Hikmat		S.T., M.T.	Laki-laki	Bandung	21-02-1974	dendi.hikmat...	082114335121	S2	Cerita

Figure 10 status line of engineering and technician



Perekayasa

Data Pribadi

NIP: 197311122008011011 Tempat Lahir: Ujung Pandang

Nama: Amrullah Kamaruddin, S.T., M. Tanggal Lahir: 12-11-1973

Gelar Depan: Gelar Belakang: S.T., M.TI Email: Amrullah.Kamaruddin@tppt.g Telepon / HP:

Data Pendidikan

Pendidikan Terakhir: S2 Bidang Studi / Keahlian: Teknik Informatika

Data Kepegawaian

Instansi: Badan Pengkajian dan Penerapan Teknologi

Unit Kerja: Pusat Pembinaan, Pendidikan dan Pelatihan

Nomor Karpeg: N.429623 Jabatan:

Pangkat / Gol. Ruang: Penata Tk.I / III/d TMT Jabatan:

TMT Pangkat / Gol. Ruang: 01-04-2019

Karya Tulis Ilmiah (KTI) dan Paten

Jumlah KTI Nasional: 0 Jumlah Paten: 0

Jumlah KTI Internasional: 0

** Mohon pastikan formasi tersedia di E-Formasi Merpan **

Figure 11. engineering and technician page

Problems with P07 codes experienced by users 1 through 4 are caused by having to always learn to use the SIIP-LO system. The problem with the P08 code experienced by user 2 was caused by the SIIP-LO system being very impractical to use because the second participant was confused about the next step to take. The second participant thinks that the application guide is necessary.

Status Inpassing									
Instansi		NP Name							
NP	No Berkas	Nama	Instansi	Penerimaan Berkas	Verifikasi	Pembelian	Cetak PAK	Keterangan	
25	15791210001020...	L2042	Herika	Batas Pengkajian dan Penerapan Teknologi					
27	15756210001020...	L2041	Yusanti	Batas Pengkajian dan Penerapan Teknologi					
28	1575430001020...	L2038	Maya Suban	Batas Pengkajian dan Penerapan Teknologi					
29	15650010001020...	P2026	Moh. Nordin	Batas Pengkajian dan Penerapan Teknologi					
30	15650700001020...	P2034	Nuraini	Batas Pengkajian dan Penerapan Teknologi					
31	15621010001020...	P2033	Arinal Heryadi	Batas Pengkajian dan Penerapan Teknologi					
32	15600201001020...	P2033	Gan Satriadi	Batas Pengkajian dan Penerapan Teknologi					
33	15610410001020...	P2033	H. M. Daud Naud P.S.D.	Batas Pengkajian dan Penerapan Teknologi					
34	15600010001020...	P2021	Harsono Satrio, S.S.	Batas Pengkajian dan Penerapan Teknologi					
35	15730710001020...	P2033	Fahri Rizki, S.E.	Batas Pengkajian dan Penerapan Teknologi					
36	15640810001020...	P2033	Drs. Sutrisno	Batas Pengkajian dan Penerapan Teknologi					
37	15641010001020...	P2034	Amey Hordani	Batas Pengkajian dan Penerapan Teknologi					
38	15641010001020...	P2035	Moh. Wajid Agus Wicak	Batas Pengkajian dan Penerapan Teknologi					
39	156101010001020...	P2021	Nura Nuzul	Batas Pengkajian dan Penerapan Teknologi					
40	15600100001020...	L2040	Bakar	Batas Pengkajian dan Penerapan Teknologi					
41	156403010001020...	L2038	Heri Setiadi	Batas Pengkajian dan Penerapan Teknologi					
42	15640700001020...	L2037	Rennaldi Amantoro	Batas Pengkajian dan Penerapan Teknologi					
43	15670400001020...	L2038	Komando, S.Sa	Batas Pengkajian dan Penerapan Teknologi					
44	15640010001020...	L2035	Esa sarni, SE	Batas Pengkajian dan Penerapan Teknologi					
45	156101010001020...	P2032	Darmawan Laga Carya	Batas Pengkajian dan Penerapan Teknologi					
46	15735100001020...	L2034	Irina Lujani	Batas Pengkajian dan Penerapan Teknologi					
47	15671000001020...	L2035	Hidiah	Batas Pengkajian dan Penerapan Teknologi					

Figure 12 : status progress of inpassing

System Implementation

Penerimaan Berkas				
Tambah Ubah Hapus				
Tanggal	Instansi	Jumlah Berkas	Catatan	
1 08-10-2019	Kementerian Perindustrian	1		#
2 08-10-2019	Kementerian Pertahanan	2		#
3 07-10-2019	Kementerian Pekerjaan Umum dan Perumahan...	4		#
4 07-10-2019	Kementerian Pekerjaan Umum dan Perumahan...	1		#
5 09-10-2019	Badan Pengkajian dan Penerapan Teknologi	18		#
6 09-10-2019	Kementerian Perindustrian	1		#
7 06-09-2019	Badan Pengkajian dan Penerapan Teknologi	18		#
8 26-09-2019	Badan Pengkajian dan Penerapan Teknologi	7		#
9 26-09-2019	Badan Pengkajian dan Penerapan Teknologi	9		#
10 03-07-2019	Kementerian Pekerjaan Umum dan Perumahan...	1		#
11 29-08-2019	Kementerian Pekerjaan Umum dan Perumahan...	1		#
12 29-08-2019	Kementerian Energi dan Sumber Daya Mineral	1		#
13 15-08-2019	Lembaga Penerbangan dan Antariksa Nasional	3		#
14 26-06-2019	Kementerian Energi dan Sumber Daya Mineral	2		#
15 30-07-2019	Kementerian Energi dan Sumber Daya Mineral	1		#
16 23-08-2019	Badan Pengkajian dan Penerapan Teknologi	4		#
17 18-06-2019	Kementerian Pekerjaan Umum dan Perumahan...	1		#
18 08-04-2019	Pemerintah Provinsi DKI Jakarta	1		#
19 20-03-2019	Badan Pengkajian dan Penerapan Teknologi	1		#
20 06-04-2019	Badan Pengkajian dan Penerapan Teknologi	1		#
Menampilkan data 1 s.d 25 dari 26 Data				

Figure 13 file decision

Penerimaan Berkas

Instansi:

Kementerian Pertahanan

Catatan:

Tanggal Terima Berkas:

08-10-2019

Berkas yang diterima

No Berkas	NIP	Nama
P2037	1963032019890310...	Achmad Fari...
P2036	1969100319860310...	Eddy Maruli ...

Cari NIP / Nama

NIP	Nama
-----	------

Figure 14. file decision

BERKAS INPASSING PEREKAYASA	
P2035	
NAMA:	Budy Nurdiansyah ST
NIP:	198111242005021001
UNIT KERJA:	Balai Besar Logam dan Mesin
INSTANSI:	Kementerian Perindustrian

Figure 15. file number

Verifikasi Berkas		Tanggal data	
NPW/Pagesw / No Berkas	L2003		
Jabatan Fungsional:	TEKNISI LITRAKAWA	Item Verifikasi	Keterangan
Jenis Inspeksi:		1. Uraian masalah memenuhi syarat?	☒
NPW:	19061102000101001	2. Surat pengajuan dari Instansi	☒
Nama:	Widada	3. Daftar riwayat hidup	☒
Salah Depan:		4. Salinan surat fotocopy ijazah	☒
Jenis Berkas:		5. Surat Rekomendasi	☒
		6. Bukti-bukti surat keterangan bekerja di unit/Instansi	☒
Jenis Kelamin:	Laki-laki	7. Salinan surat fotocopy SK Keanggotaan CPNHS, PNS s.d. Pangkat/Gol. Ruang terakumulasi	☒
Tanggal / Tanggal Lahir:	Wonorejo, 11-10-1968	8. Salinan surat fotocopy PKWP tahun terakhir	☒
Uraian:	50 (julang tahun berhitung ke 3 hari, deadline tanggal 10-11-2024)	9. Surat pernyataan tidak sedang menjalani hukuman disiplin	☐ tidak ada
Pendidikan Terakhir:	SLTA / SMK - Meseh Temaga	10. Surat pernyataan tidak sedang dalam tanggungan	☐ tidak ada
Numor Kerja:	N15887	11. Salinan surat hasil karya tulis ilmiah Teknologi Tepat Guna	☐ tidak ada
Pangkat / Gol. Ruang:	Pangkat Tk. I - Sid	12. Salinan surat fotocopy SK Jabatan (Bagi Administrator atau Pegawai)	☐ tidak ada
TMT Pangkat / Gol. Ruang:	01-04-2019 (D Th 7 B)	13. Salinan surat fotocopy PKW terkini	☐ tidak ada
Jabatan:	Tekniksi Laboratorium	14. Salinan surat fotocopy SK d. 50-ban karena Kurang AK (Bagi Tk. 1B Kurang AK)	☐ tidak ada
TMT Jabatan:			
Instansi:	Kementerian Energi dan Sumber Daya Mineral		
Unit Kerja:	Pusatlitbang Teknologi Minyak dan Gas Bumi "Lemigas" - Badan Penelitian dan Pengembangan		
Jumlah KTI Nasional:			
Jumlah KTI Internasional:			
Lampiran Berkas:		 	

Figure 16. verification

PENILAIAN USULAN INPASS JABANG TEKNIKS LITKAYASA		CATATAN PENILAI																													
Instansi: Kementerian Energi dan Sumber Daya Mineral		No. Berkas L2003																													
Keterangan Perorangan	Koreksi																														
Nama Pengusul : Widofo																															
NIP : 196811102007011001																															
No. Karpeng : N158507																															
Pangkat / Gol. Ruang : Pengatur Tk. I / Sisd																															
TMT Pangkat / Gol. Ruang : 01-04-2019 (D Th 7 B)																															
Tempat, Tanggal Lahir : Wonorejo, 10-11-1968 (Sd Th)																															
Jenis Kelamin : Laki-laki																															
Pendidikan : Bidang Studi : SLTA / SMK ; Measn Tenaga																															
Jabatan / TMT : Teknisi Laboratorium																															
Unit Kerja : PusatIlmang Teknologi Minyak dan Gas Bumi "Lemigas" - Badan Penelitian dan Pengembangan																															
		NAMA PENILAI: TANDA TANGAN:																													
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">1. Usia masih memenuhi syarat?</td> <td style="width: 50%; text-align: center; padding: 5px;">✓</td> </tr> <tr> <td style="padding: 5px;">2. Surat pengantar dari Instansi.</td> <td style="text-align: center; padding: 5px;">✓</td> </tr> <tr> <td style="padding: 5px;">3. Daftar riwayat hidup</td> <td style="text-align: center; padding: 5px;">✓</td> </tr> <tr> <td style="padding: 5px;">4. Salinan sah fotocopy Izazah</td> <td style="text-align: center; padding: 5px;">✓</td> </tr> <tr> <td style="padding: 5px;">5. Surat Rekomendasi</td> <td style="text-align: center; padding: 5px;">✓</td> </tr> <tr> <td style="padding: 5px;">6. Bukti-bukti surat keterangan bekerja di unit Ilmanggas</td> <td style="text-align: center; padding: 5px;">✓</td> </tr> <tr> <td style="padding: 5px;">7. Salinan sah fotocopy SK Kepangkatan (CPNS, PNS s.d. Pangkat/Gol. Ruang terakhir)</td> <td style="text-align: center; padding: 5px;">✓</td> </tr> <tr> <td style="padding: 5px;">8. Salinan sah fotocopy PZPK tahun terakhir</td> <td style="text-align: center; padding: 5px;">✓</td> </tr> <tr> <td style="padding: 5px;">9. Surat pernyataan tidak sedang menjalani hukuman disiplin</td> <td style="text-align: center; padding: 5px;">- tidak ada</td> </tr> <tr> <td style="padding: 5px;">10. Surat pernyataan tidak sedang dalam tugen belajar</td> <td style="text-align: center; padding: 5px;">- tidak ada</td> </tr> <tr> <td style="padding: 5px;">11. Salinan sah hasil karya ilmiah/ Teknologi Tepat Guna</td> <td style="text-align: center; padding: 5px;">- tidak ada</td> </tr> <tr> <td style="padding: 5px;">12. Salinan sah fotocopy SK Jabatan (Bagi Administrator atau Pegawai)</td> <td style="text-align: center; padding: 5px;">- tidak ada</td> </tr> <tr> <td style="padding: 5px;">13. Salinan sah fotocopy PAK terakhir (Bagi TL BS Kurang AK)</td> <td style="text-align: center; padding: 5px;">- tidak ada</td> </tr> <tr> <td style="padding: 5px;">14. Salinan sah fotocopy SK di-BB-karena kurang AK (Bagi TL BS Kurang AK)</td> <td style="text-align: center; padding: 5px;">- tidak ada</td> </tr> </table>				1. Usia masih memenuhi syarat?	✓	2. Surat pengantar dari Instansi.	✓	3. Daftar riwayat hidup	✓	4. Salinan sah fotocopy Izazah	✓	5. Surat Rekomendasi	✓	6. Bukti-bukti surat keterangan bekerja di unit Ilmanggas	✓	7. Salinan sah fotocopy SK Kepangkatan (CPNS, PNS s.d. Pangkat/Gol. Ruang terakhir)	✓	8. Salinan sah fotocopy PZPK tahun terakhir	✓	9. Surat pernyataan tidak sedang menjalani hukuman disiplin	- tidak ada	10. Surat pernyataan tidak sedang dalam tugen belajar	- tidak ada	11. Salinan sah hasil karya ilmiah/ Teknologi Tepat Guna	- tidak ada	12. Salinan sah fotocopy SK Jabatan (Bagi Administrator atau Pegawai)	- tidak ada	13. Salinan sah fotocopy PAK terakhir (Bagi TL BS Kurang AK)	- tidak ada	14. Salinan sah fotocopy SK di-BB-karena kurang AK (Bagi TL BS Kurang AK)	- tidak ada
1. Usia masih memenuhi syarat?	✓																														
2. Surat pengantar dari Instansi.	✓																														
3. Daftar riwayat hidup	✓																														
4. Salinan sah fotocopy Izazah	✓																														
5. Surat Rekomendasi	✓																														
6. Bukti-bukti surat keterangan bekerja di unit Ilmanggas	✓																														
7. Salinan sah fotocopy SK Kepangkatan (CPNS, PNS s.d. Pangkat/Gol. Ruang terakhir)	✓																														
8. Salinan sah fotocopy PZPK tahun terakhir	✓																														
9. Surat pernyataan tidak sedang menjalani hukuman disiplin	- tidak ada																														
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12. Salinan sah fotocopy SK Jabatan (Bagi Administrator atau Pegawai)	- tidak ada																														
13. Salinan sah fotocopy PAK terakhir (Bagi TL BS Kurang AK)	- tidak ada																														
14. Salinan sah fotocopy SK di-BB-karena kurang AK (Bagi TL BS Kurang AK)	- tidak ada																														
15. Persyaratan Usia dan Pangkat 16. Pendidikan terakhir yang digunakan sebagai penilaian 17. Total Angka Kredit:		Usia < 56 Tahun																													
☐ Direkomendasikan dan lulus uji kompetensi dalam Jabatan TEKNIKS LITKAYASA _____ ☐ Tidak direkomendasikan dan tidak lulus uji kompetensi dalam Jabatan TEKNIKS LITKAYASA _____																															
Catatan:																															

Figure 17. Boring Decision

Login Page

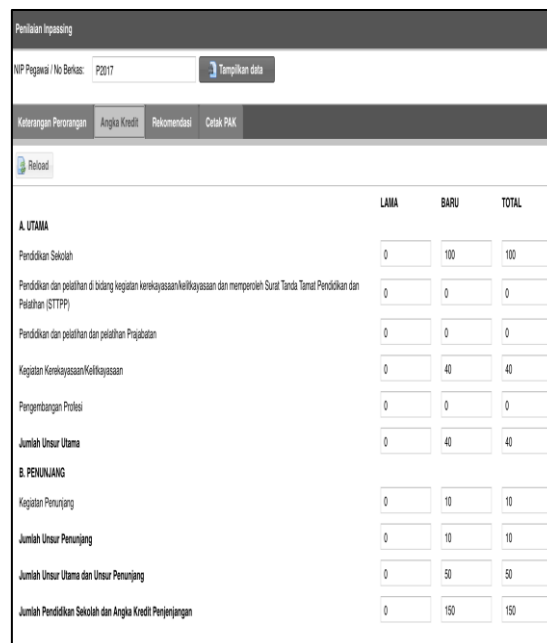


Figure 18. inpassing file

A login page is created to enter the inpassing system. On this page every user of the system is required to have a username and password. The page consists of only two textfields to enter the username and password, as well as a button to authorize the user.

Registration page of engineers and engineers

The registration page of engineers and engineering technicians is used by users of agencies who want to register employees in their agencies to be prospective engineers and engineering technicians.



	LAMBA	BARU	TOTAL
A. UTAMA			
Pendidikan Sekolah	0	100	100
Pendidikan dan pelatihan di bidang kegiatan kerakyasan/keleluasaan dan memperoleh Surat Tanda Tamat Pendidikan dan Pelatihan (STTPP)	0	0	0
Pendidikan dan pelatihan dan pelatihan Prajabatan	0	0	0
Kegiatan Kerakyasan/Keleluasaan	0	40	40
Pengembangan Profesi	0	0	0
Jumlah Unsur Utama	0	40	40
B. PENUNJANG			
Kegiatan Penunjang	0	10	10
Jumlah Unsur Penunjang	0	10	10
Jumlah Unsur Utama dan Unsur Penunjang	0	50	50
Jumlah Pendidikan Sekolah dan Angka Kredit Penjenjangan	0	150	150

Figure 19. Inpassing file

Figure 20. recommendation

On this page there is a button to add, change, and delete data of prospective engineers and engineers. Add and change buttons are used to add or change data of prospective engineers / engineers through the form.

PENETAPAN ANGKA KREDIT			
Nomor : 15/PAK-INPASSING/BPPT/PRK/IX/2019			
Masa Penilaian : --- s/d 31 Agustus 2019			
Instansi: Kementerian Pekerjaan Umum dan Perumahan Rakyat			
I KETERANGAN PERORANGAN			
1 Nama	Aditya Iwan Putro, ST		
2 NIP	197802152014121002		
3 No seri KARPEG	B03013939		
4 Pangkat / Golongan Ruang / TMT	Penata Muda Tk.I / III/b / 01-04-2019		
5 Tempat dan Tanggal Lahir	Surakarta, 15-02-1978		
6 Jenis Kelamin	Laki-laki		
7 Pendidikan Tertinggi	S1 / D4		
8 Jabatan Fungsional / TMT			
9 Unit Kerja	Puslitbang Sumber Daya Air - Badan Penelitian dan Pengembangan		
II PENETAPAN ANGKA KREDIT			
	LAMA	BARU	JUMLAH
I Pendidikan Sekolah	0,000	100,000	100,000
II A. UTAMA			
1) Pendidikan dan Pelatihan di bidang kegiatan rekayasa dan memperoleh Surat Tanda Tamat Pendidikan dan	0,000	0,000	0,000

Figure 21. Master data management page

The results of the Proposed Inpassing File of Engineers in the Agency in 2019, The proposed engineer inpassing file proposed by 12 agencies consists of: 4 proposals from the Ministry, 3 proposals from Institutions and 5 proposals from the Provincial or Municipal

Government. The number of inpassing proposals 96 that can be seen in table 9 proposed inpassing files engineers at the agency.

Data Master
Tingkat Pendidikan
Bidang Keahlian
Pangkat
Pangkat Jabatan Fungsional
Instansi
Unit Kerja
Item Verifikasi

NO	INSTANSI (K/L)	JUMLAH
1	BMKG	1
2	BPPT	24
3	ESDM	7
4	PUPR	48
5	KEMENPERIN	1
6	KEMENHAN	2
7	LIPI	8
8	PEMPROV DIY	1
9	PEMPROV PEKANBARU	1
10	PEMPROV DKI	1
11	PEMPROV RIAU	1
12	PEMPROV SULSEL	1
	JUMLAH	96

Table.9 Proposed engineer inpassing files in agencies

CONCLUSION

The need to analyze the need to know what is needed in the development of this new system that includes functional needs and non-functional needs. The need to design a good user interface needs, if the user interface design is bad can cause the user to make a fatal mistake. It takes good and sharp analysis for data processing to produce the information needed in decision making. It takes a gradual test of the functions contained in SIIP-LO to evaluate whether functions are not working as expected by the user requirement and correct them by identifying defects and problems.

Several institutions / ministries have done the submission of basic data that will be done to support the completion of the task of inpassing the position of engineer and the position of engineering technicians and secara terus-menerus will be supervised institutionally throughout the next activity

SPECIAL THANKS

We would like to express our gratitude to all of our leaders and colleagues who have helped organize this scientific work hopefully the charity gets a blessing from the almighty.

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