

# Web-Based Project Work Management Information System Development (Case: CV. Trijaya Abadi Electric)

**Faruq Arsyad Maulana<sup>1</sup>, Wibawa<sup>2</sup>, Ari Kusuma Wardana<sup>\*3</sup>**  
<sup>1,2,3</sup> Informatics Universitas PGRI Yogyakarta Indonesia

**E-mail:** <sup>1</sup> [faruqarsyadmaulana@gmail.com](mailto:faruqarsyadmaulana@gmail.com), <sup>2</sup> [ndorobowo@yahoo.co.id](mailto:ndorobowo@yahoo.co.id), <sup>3\*</sup> [ari@upy.ac.id](mailto:ari@upy.ac.id)

## **Abstract**

*This research was conducted to build a System Information Management Project with efficient, effective, and easy as well as can count budget work, budget shopping, budget wages employees, Manage presence employees, count payroll in a way, got it make report payroll. and reports readiness Work on discussion budget. This research was carried out through four stages, namely 1. Planning ( planning ), 2. Analysis ( analysis ), 3. Design ( designing ), and 4. Implementation ( application ). Development System Information Management Work Project Web Based ( Case Study: CV. Trijaya Abadi Electric). CV. Trijaya Abadi Electric has so far managed everything related to work, still using manual systems such as employee absences verbally to superiors, work progress verbally, payroll still using Microsoft Excel, and work management that has not been fully organized causing data input errors. and budget calculations that are often missed, resulting in errors in invoices and tender notes. The process of calculating the shopping budget and equipment rental along with worker salaries must be maximum and optimal so that there are no errors in the bookkeeping so that it is clear that the profits obtained are in accordance with the calculations.*

**Keywords** - \_ Information Systems; project work, management, web base.

## **1. INTRODUCTION**

Progress technology in modern times such as Now can influence on effectiveness performance of an organization/company [1]. Technology web-based information is the system the information used reference For data storage, obtaining information, processing data, and providing appearance form information to client/server architecture [2]. The Website is a gathering page containing \_ a number of digital information in the form of text, images, videos, etc in other visual forms.

Something technology information utilized \_ something company/organization as a method For push level error to the user can disseminate information, and only requires affordable capital [3]. System information management projects that haven't yet integrated with the web will make the manager experience difficulties [4]. System information This Good service For payroll workers, budget cost shopping, and standards operational company/organization procedures (SOP). Another influence on development technology information is using it on everything line, especially in the field service CV contractor. Trijaya Abadi Electric Kudus. Several technologies that will be used on the system information is organized and controlled in one system. The purpose of using system information is For efficiency and effectiveness management work project contractor in a way appropriate on time, scheduled, and according to the target achieved. Therefore \_, role design and planning are important things \_ To obtain results work in a way that

maximum effort is carried out by engineers, accounting staff, project managers, and all those involved in planning work [ 2].

CV. Trijaya Abadi Electric Kudus is a company moving contractor \_ in the field of General Trading, Mechanical Electrical, Panel Maker, and Electrical Component Supplier. This company usually gets a project tender from PT. Hartono Kudus Palace of Technology (Polytron). offer delivery directly, as well as in form auction. During the work project going on, fine transaction purchase shopping materials and \_ transaction wages worker.

## 2. LITERATURE REVIEW

Study about System Information Management Project Web based of course Lots circulating, for example research conducted by (Putri & Bobby, 2019) entitled " System Information Management PT project . Samudera Perkasa Construction Web Based " does development system management and control management project like information arrangement timetable work, time work, budget shopping, and systems payroll. System information is also useful For making it easier as well as managing work with fast [1]. Research result This can support speed work in doing repair system work for a company/organization.

Research carried out by (Jayanti & Meilinda, 2021) with the title " Implementation of Prototype Models in Design Get up System Information Management Web -Based Project (SAMAR) for Contractor Companies " which is system web information can make it easier in database design and management project, which provides facility to 3 ( three ) user levels, namely admin, supervisor, and director. and produce *output* from report projects, receipts, expenses, and income, as well as realization and profit make a loss.

A number of methodologies used \_ are variants of the *prototype* model that will be used To look for all something required by the *customer* in a way with more impactful *details* \_ the more enlarging costs incurred & time \_ implementation. Variations of this model also exist in a number of stages like listening to a need which is the determination need functional as well as choose device device hardware & devices required software (non-functional). Then repair *the mock-up* where, the result analysis the made as base consisting of plans from the modeling system using *UML*, databases, and views interface/*user interface*, and the most important thing is to see and test *mock up* with objective For know shortcomings and errors in planning A system . Methodology other with technique data collection consisting Father observation observations on the company contractor For reference How system management implemented projects. \_ Then use method interview, to obtain primary data on objects study.

Later study This can develop something channel management work project, with Language PHP programming and *Codeigniter framework* as a management process work, budget shopping, as well payroll worker.

## 3. RESEARCH METHODS

### 3.1. Method of collecting data

Data collection is carried out through a number of methods/stages, including with method studies literature Where method For processing data with learn journal or scientific writing obtained \_ from the internet, then method data collection with which observation a method Where researcher gets information with method observe in a way directly in the office and environment CV work. Trijaya Abadi Electric related to employee data, material data, equipment data, flow jobs, jobs data, and reports, next is with interview ie To use obtain data from the source person in

a way directly, researchers also know lack as well as what is needed informant in development System Information Management Work Project Web Based at CV. Trijaya Abadi Electric. Lastly, use method of *browsing the internet* is purposeful For processing the data obtained from sources on the internet for research This gets information in a way more detail or adds knowledge about the material development system.

### 3.2. Analysis Need System

Activities at stage This analyzes the needs For making the system the system will design is a web-based system. System This will used by 2 ( two ) *users* who are *admin* and CV employees. Trijaya Abadi Electric. Before *login*, the user both admin and employees must do registration To make respective accounts. In the system, there are a number of appearance Work that as attendance, payroll, tools, materials, and *work orders*. For presence, employees will click the link and do it presence every come in and go home Work Where day Work effective are Monday – Friday and Saturday – Sunday holiday. Whereas for overtime hours addition and login work on Saturday – Sunday as well as on the date red Can be done anytime in accordance with the condition field. Then For appearance, Work payroll consists of each employee's data employee calculation wages daily, salary main, salary overtime, salary enter work in the day holidays, meals, and cash receipts. Payroll This will calculated in a way automatic in accordance with each other 's presence employees and will Payslip come out every month. Budget shopping work consists of the list of names and prices of materials, prices of tools, and budget operational every the day during project taking place. On a budget, shopping work is also available calculation anggarav in a way automatically that should be issued by the company For start project based on material prices, prices tools, and budget already operational \_ determined by CV. Trijaya Abadi Electric so that the calculation process is more complete and efficient, especially in making notes or *invoices*.

### 3.3. Planning

Stages planning with making a *Use of Case Diagram* which is one of the diagrams used To describe the need for functional systems and relationships interaction between user and system. Actors in *Use Case Diagrams* There are two namely admin and employees.

### 3.4. Implementation

Implementation Development system information management Work Project Web-based ( Case Study: CV. Trijaya Abadi Electric) was built Web-based. Use *Frameworks* Codeigniter, and MySql database as well as Language PHP programming.

### 3.5. Testing Implemented System \_

The testing system is done using testing *alpha testing* and *black box testing*. *Black box testing* Alone was tested by the lecturer program supervisor. Testing the done with method operate system information management work project based \_ *Web* ( Case Study: CV. Trijaya Abadi Electric), with objective For know is a system created \_ free from error syntax and function as expected. \_ Trials \_ *Alpha Testing* was carried out by 5 (five) people as respondents, consisting of *users* or employees. Informants/respondents run the program and so on fill out a list of questions ( questionnaire ) as response/response to the current program created ( developed ).

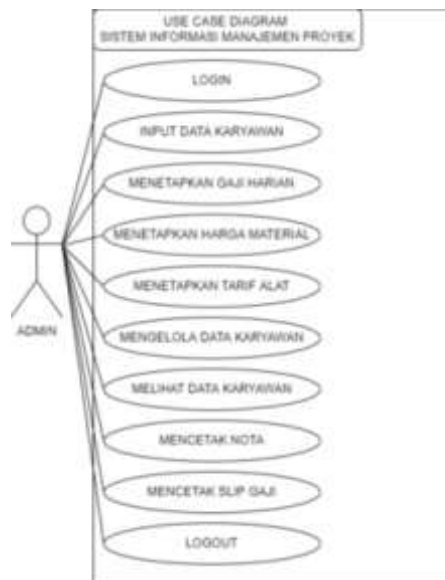
### 3.6. Output Results and Discussion

Outer study form Development System Information Management Work Project Web-based ( Case Study: CV. Trijaya Abadi Electric) was built Web-based. Use *Frameworks* Codeigniter, and MySql database as well as Language PHP programming. In the system, This displays data and information about attendance, payroll, equipment, and material data as well as management jobs at CV. Trijaya Abadi Electric.

Planning an application/system starts with making a *use case diagram*, one of the diagrams for describes the need for functional systems and relationships interaction between actors and systems (admin and employees ). **Figure 1**, shows a *Diagram* for employees, while **Figure 2**, shows a *diagram* for admin.



**Figure 1.** Employee Use Case Diagram



**Figure 2.** Admin Use Case Diagram

the main discussion of the article started with a discussion about user presence. On display presence, there is saying Happy Come and name bright *user* in accordance with the data entered at the time *Sign Up*, then below it, there is the day, month, date, and year as well as a *real-time* clock For give information before entering the attendance process done, next under where is the button? adjacent left For presence go in and next door right For presence go home.



**Figure 3.** Appearance User Presence

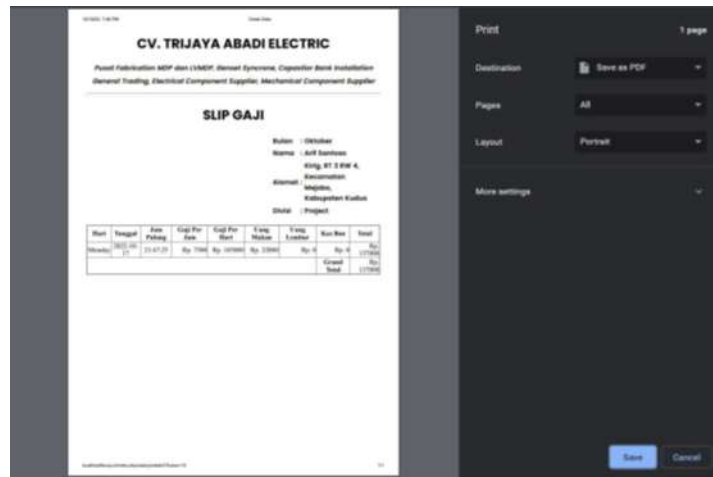
Then If the user has clicked on the entry time and departure time, the attendance data contains When time click on the entry time, when time click on home time, hourly salary, daily salary, meal allowance, overtime pay, cash receipts, and total salary will automatic enter to in where is the admin system ? only admin can Access and view salary details *users* who have do presence through page *salary*.



**Figure 4 .** Appearance salary details page employee

Display on the page the wages employee there is name, address, and division. Then below it, there is a form that displays the meaning month \_ if clicked, then \_ will monthly salary data appear \_ from January to \_ December. Based on the appearance **of Figure 4** above, the *user* has clicked on the return time at 21:47:25 which can be interpreted as the *user* has Worked for 14 working hours starting from clicking on the entry time at 07:00:00 am day. The calculation is, hourly salary x total time worked + meal allowance + overtime pay ( if there is ) – cash receipt ( if there is ) = total salary per day. Means can explained based on the picture on with calculation Rp. 7,500,- x 14 + Rp. 32,000,- = Rp. 137,000,- with notes No There is additional overtime pay or not There is subtraction because *user* No takes the cash receipt. After that, with the click *button* print the data, then will The pay slip will appear ready printed, or downloaded in PDF form. The payslip display \_ is presented in **Figure 5**.

<https://journal.upy.ac.id/index.php/ASTRO/index>



**Figure 5.** Payslip Display \_ Employee

Discussion final enter to appearance *work orders*. On display, This is Where the client has its planned work to be done delegated to CV. Trijaya Abadi Electric for do via admin using page *work orders*.



**Figure 6.** Work Order Details Page

If the form is completely filled, before clicking *the button* next, open a new tab with what material data to input just what is needed with the open return materials page. If the material has been entered click *the button* furthermore The material data that has been displayed appears as input from the materials page.

**PENGHITUNGAN ANGGARAN BIAYA**

No	Nama Material	Satuan	Harga Material	Jumlah Material	Total Biaya
1	WV - 4/50mm - Supreme	Meter	890000	1	Rp. 890000
2	WV - 4/50mm - Supreme	Meter	890000	1	Rp. 890000
GRAND TOTAL					Rp. 1780000

[Close Data](#)

**Figure 7.** Appearance Detailed Material Data added

Based on the picture above, appear name of the material, unit , price , quantity , and total cost of material needed and available as a preview before the data printing process in the form of a note or *invoices* . Apart from that , there are also *buttons* For deleting as well as adding material data to in calculation budget cost work . Furthermore, if the material data is already sure , click

print data for the containing note form information on the page *work order* , material data, number account as well as a sign form hand CV boss . Trijaya Abadi Electric



**Figure 8 .** *Work order invoices*

#### 4. SYSTEM TESTING RESULTS

Testing First use method testing *Black Box* carried out by the supervisor with method operate System Information Management Web Based ( Case Study : CV. Trijaya Abadi Electric). Testing is done To know if the resulting system \_ can work with Good . Conclusions obtained \_ from the study This is a system built \_ free from error syntax and results in accordance with what was expected . The following is the Test Table *Black Box*

**Table 1.** *Black Box Testing*

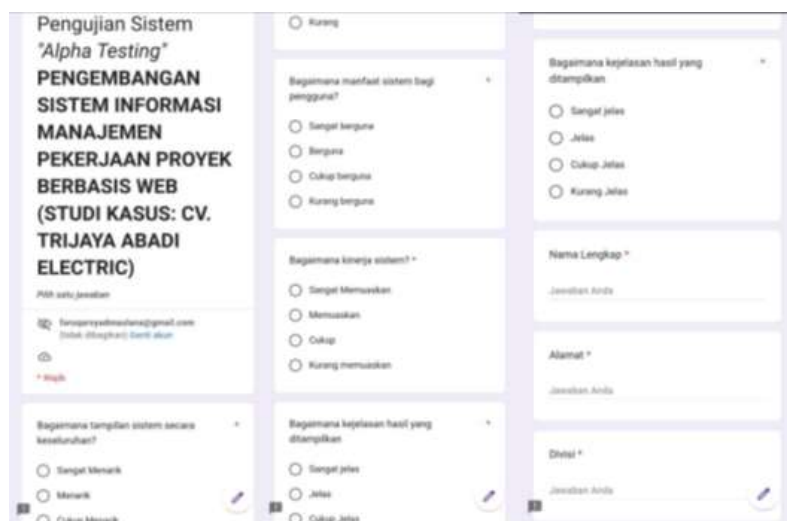
No	Testing Page	Action	Reaction System		Results
			Correct	Wrong	
1.	Sign up	Enter identity data along with a photo on the signup form	Entered into sign-in display	Will remain on the signup page	
2.	Sign in	Enter the appropriate email and password from the data entered at the signup time	Succeed enter to in system namely on the home page	Will remain on the sign-in page	
3.	Absence	Click the attendance menu from the Home page	Entered into page Contained absences _ Happy come , name , time , date , month , and	Does not display page absenteeism and failure to carry out the	

			year , and can carry out the attendance process at entry time and departure time	attendance process
4.	Wages Employee	Click the salary details button on the Salary page	Entered into appearance wages containing employees _ name , address , division, salary data every month in One year , and information complete annoying presence covers a day , date , home time , salary hourly , daily salary , meal allowance , overtime pay , cash receipts, total as well as edit and delete buttons can work with Good	Not showing display salary details and attendance data as well as No edit and delete buttons function and also wrong calculation wages .
5.	Print Pay Slips	Print data on the page wages employee	Will display a pay slip for existing employees _ in accordance with salary details as well as can print and download in PDF form	Doesn't show pay slips and it does not carry out the printing and downloading PDF process
6.	Work Orders	Click the work order from the menu home page , attendance , salary, tools , or materials	Displays several work order forms that can filled manually and the next button works to display a preview before displaying the invoice	Doesn't display the form and no can fill it manually and the next button No can work
7.	Counting budget cost	Click the next menu after filling out the form on the work order page	Displays material data that has been made input previously from material pages , and the information displayed complete like material name ,	Does not display existing material data entered and entered incorrectly does calculation amount price



		unit , price , as well as the quantity , total cost and also available do summation price with Correct . Plus the buttons for editing and deleting also function .	failure edit and delete button functions as well as No Can print invoices.
8. Print invoice data	Click print data from appearance calculation budget cost	Displays the complete invoice with information displayed _ in accordance with the form on the work order page , you can do the calculations budget with Correct with existing additional VAT of 11%, and can also be downloaded in PDF form .	Doesn't display invoices and does not do calculation budget with Correct as well as the failure function print or download it in PDF form .
9. Logout	Click log out on the page anywhere	Will Return to the sign-in page	Didn't do any processing

The second step is to use the method of *alpha testing* Where done trial by 5 (five) respondents consisting of *users* or employees. The source person can manage the program and so on fill out a list of questions ( questionnaire ) as the response of the program being developed . The question details questionnaire uses *Google Forms* seen in **Figure 9**.

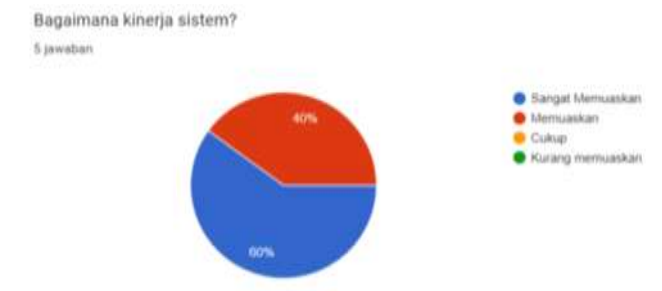


**Figure 9.** Alpha Test Google Form

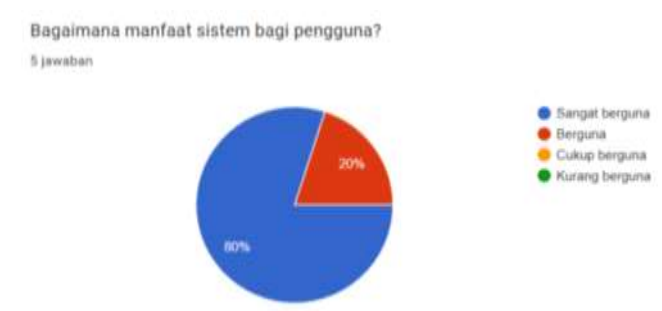
**Table 2. List of Respondents**

No.	Name	Address	Division
1.	Congratulations Noor Fais	Undaan Tengah Village , RT 3 RW 5 Gang 11, District Undaan , Kudus Regency	Projects
2.	Afriza Kurniawan	Fahrul Kirig Village , RT 2 RW 3, District Mejobo Kudus Regency	Projects
3.	Arif Santoso	Kirig Village , RT 3 RW 4, District Mejobo , Kudus Regency	Projects
4.	Danang Widodo	Temulus Village , RT 5 RW 4, District Mejobo , Kudus Regency	Projects
5.	Rukani	Pedawang Village , RT 1 RW 2, Bae District , Kudus Regency	Projects

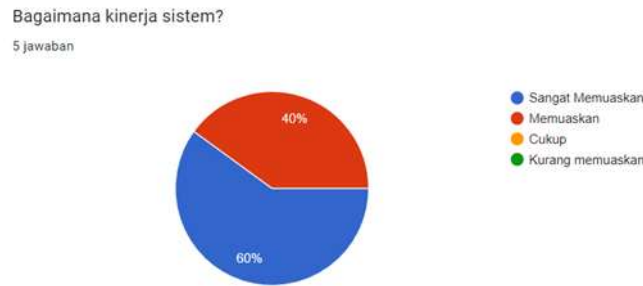
Test results include : appearance system , benefits system , performance system , and accuracy displayed results \_ system can be seen in the discussion chart under This .



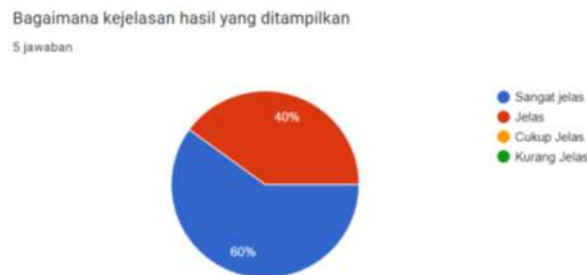
**Figure 10. Graph Program View**



**Figure 11. System Benefits Graph**



**Figure 12.** System Performance Graph



**Figure 13.** Graph Clarity System

## 5. CONCLUSIONS AND RECOMMENDATIONS

In accordance with the results implementation of the System Information Management Work Project Web Based ( Case Study : CV. Trijaya Abadi Electric), then can concluded as follows: That study can realize the process ( system information ) Management Work Project Web-based ( Case Study : CV. Trijaya Abadi Electric) which is used by *admins* and *users* for do attendance , payroll , tool data work, and materials as well *orders* work project in a way effective , system created \_ can makes things easier for admins manage attendance and payroll employees , Test results Development system Web -based ( Case Study : CV. Trijaya Abadi Electric) shows flow/system can walk with OK , proven with mark Most of the trials were carried out on the program display , 60% answered very interesting , useful system 80% answered very useful , performance system 60% answered very satisfying , as well clarity The results shown were 60% answered very clear . As for suggestions for the researcher furthermore namely : System This expected can developed to device *mobile* such as Android and iOS, as well can accessed online , necessary improvement functions so that capable do more management \_ complex and detailed .

## REFERENCES

- [1] AY Saputra, W. and M. Fairuzabadi, "Academic Information System Web-Based at SMPN 4 Banguntapan Yogyakarta," *Proceedings of SENADI*, 2016.
- [2] PH Putri and LN Hasanah, "Design of an Anemia Information System on the "Srikandi Health" Online Platform Based on Progressive Web Apps," *Jurnal Sehat Mandiri*, pp. 143-150, 2021.

- [3] S. Wardani and YA Suminar, "Web Management Training to Increase Promotion at KUD Tani Makmur, Kasihan District," *Journal of Community Service*, pp. 79-88, 2018.
- [4] MN Certainlya, M. Fairuzabadi and S. Sumarmi, "Mobile Web-Based Information System for Administration at University PGRI Yogyakarta," *Journal of Physics : Conference Series*, 2019.
- [5] S. Oyama, "Academic Guidance Information System at PGRI University Yogyakarta," *Journal of Informatics Dynamics*, pp. 43-49, 2017.
- [6] [6] Gabriel, G., & Dewi, PL (nd). Design and Development of a Web-Based Construction Project Management Information System at UD. GREAT SOLAR.
- [7] Kurniawan, R., & Marhamelda, S. (2019). Student Data Processing System at LKP Prima Tama Dumai Computer Using the PHP Programming Language. *Journal of Informatics* , 37.
- [8] Mauluddin, S., & Santini, N. (2018). Desktop-Based Goods Inventory and Sales Information System at D-Net House. *Proceedings of the National Seminar on Engineering, Computers and Robotics (SAINTIKS)* , III-12.
- [9] Putri, MP, & Bobby. (2020). Project Management Information System PT. Samudera Perkasa Web Based Construction. *Journal of Information Engineering and Computer Engineering Management* , 85-96.
- [10] Rachel, R., Widagdo, D., & Sibi, M. (2015). Designing a Website-Based Management Information System in a Construction Project (Case Study: Construction of the Makodam 13 Merdeka Office in Manado). *Journal of Civil Statics* , 767-774.
- [11] Rahmasari, T. (2019). Design of an Accounting Information System for Merchandise Inventory at a Convenience Store using PHP and MySQL. *Information Technology* , 411-425.
- [12] Siregar, HF, & Sari, N. (2018). Design and Development of a Web-Based Savings and Loans Application for Students at the Faculty of Engineering, Asahan University. *Journal of Information Technology* , 53.