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2. Halaman Sampul



3. Daftar Isi

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	Paper Title:	Portable Multi-Utility Porter System In Android Applications	
1002	Abstract: Th demand for more reasonable cost parameters used the portable devi Keywords: step References: 1. Zou, H.; Huan extreme learnin 2. Wannenburg, J	e main objective is to bring back the porter system. The reason behind that is previously the new increased consequently, the usage decreased. A new concept has been brought to get a and to increase the usage. The cost is calculated by step count and weight. The various are 1) Accelerometer 2) Bluetooth 3) Load cell. An android application is created interfacing ce. In this way, the service of the porter is utilized. This is how the system is carried out. count, weight, short distance, android application. g. B.; Lu, X.; Jiang, H.; Xie, L. A robust indoor positioning system based on the procreates analysis and weighted g machine. IEEE Trans. Wirel. Commun. 1252-1266,2016	8-12

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	 Xia, H.; Wang, 2016. 	Z. Human activity recognition based on accelerometer data from a mobile phone. Int. J. Commun. Syst. 29, 1981–1991,	
	Authors:	Lekshmi Gangadhar, Akhila Rajan, P. K Praseetha	
	Paper Title:	Semiconductor Quantum Dots for Performance Improvement in Solar Cells	
1003	Abstract: The s abundance and re (QDSC) provide an semiconductors po an aqueous mediu quantum dots with (TNW) were fabri differentiated using light (UV-VIS) spe surface contact am cell. Since quantum flexible and light QDSC were fabrici attained for the Cd ambient atmospher Keywords: Cadi References: 1. B. O'Regan an 1991, pp. 737- 2. J.Y. Liao, B. nanoparticles 5 3. V. Malgras, A quantum dots' 4. D.L. Klein, R nanocrystal', 1 5. J.S. Steckel, J shell nanocrystal', 1. J. Macdonal 9. J. H. Bang an Nano, Vol. 3, ; 10. X. Feng, K. Sl with high open 11. F. Sheng-Cian	solar energy is the potential renewable green energy supply while considering the provision of sunlight in quirement for clean and renewable source of energy. The quantum dots sensitized solar cells a alternative perception to current photovoltaic devices. Quantum dots are colloidal nanocrystalline sessing distinctive properties owing to quantum confinement effects. Quantum dots synthesis is based on un involving cadmium sulphate, zinc acetate, thiourea and ammonium hydroxide and assemble these is nonporous TiO ₂ films for quantum dots-sensitized solar cell applications. Titanium dioxide nanowires field emission scanning electron microscope (FE-SEM), X-ray diffraction (XRD) and ultraviolet-visible ectrometer. The establishment of TNWs allows the electrolyte to go easily within the film, escalating the ong the nanowires, the quantum dots and the electrolyte, results in improvement in the efficiency of solar n dots are solution processable, they are an attractive material for the recognition of low-cost, large-area, weight photovoltaic devices. Various parameters of quantum dot sensitized solar cell were calculated. ated by combining CdS and CdS/ZaS core-shell QDs with TiO ₂ wire arrays. An efficiency of 7.02% was IS/ZaS quantum dots-sensitized solar cells using the present method. Moreover these devices processed in the have shown better performance and possess enhanced chemical, thermal and photochemical stability. mitum sulfide, sensitization, solar cells, quantum dots nd M. Grätzel, "A low-cost, high-efficiency solar cell based on dye-sensitized colloidal TiO ₂ films", Nature, Vol. 353, -740. X. Lei, D. B. Kuang and C. Y. Su, "Tri-functional hierarchical TiO ₂ spheres consisting of anatase nanorods and for high efficiency dye-sensitized solar cells", Energy and Environmental Science, Vol.4, 2011, pp. 4079-4085. A. Nattestad, J. H. Kim, D. S. Xue and Y. Yamauch , "Understanding chemically processed solar cells based on "Science and Technology of Advanced Materials, Vol.18, 2017, pp. 334-350. Roth, A. K. Li	13-20
	on carbon fibe 13. Y. Ohsaki	if or dye-sensitized solar cells." Journal of the American Chemical Society, Vol. 134,2012, pp. 4437-4441.	

	Physics, Vol. 7, 20	005, pp. 4157-4163.	
	Authors:	Richki Agus Satryan, Kiagus Ahmad Roni, Heni Juniar	
	Paper Title:	The Utilization of Extract Belimbing Wuluh Leaves (Averrhoa Bilimbi) as Natural Inhibit Corrosion to Prevent Corrosion on Metal Mild Steel	tor
	Abstract: Corrosi reaction with envir Bilimbi) is an organ of mild steel in corr analyze (discolorati Weight loss methoo sized 4 cm x 2,1 cc corrosion rate test belimbing wuluh le weeks with efficien Keywords:Belimb	on is a gradual destruction of metal, which decrease the quality (degradation) of metal because of their onment by chemical or or electrochemical in usage time. Extract of belimbing wuluh leaves (Averrhoa aic substances that can be used as a natural inhibitor because it contains tannin that reduce corrosion rate osive medium. Tannin in extract of belimbing wuluh leaves is analyzed with two phase, first is qualitative ion from brown to green) and second is quantitative analyze and obtained the tannin level is 0.3924%. d is used to test the effectiveness of extract belimbing wuluh leaves as an inhibitor on metal mild steel m x 0,2 cm with various of corrosive medium (such as rain water, swamp water, and river water) and (1 week, 2 weeks, 3 weeks, 4 weeks and 5 weeks). The result of research showed that usage of extract aves as natural inhibitor is more effective in rain water corrosive environment with corrosion rate test in 5 cy 91%.	
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	Authors:	Novrini Hasti, Machdalena, Andri Sahata Sitanggang	
	Paper Title:	Web-based Information System of Baby Data Management of Integrated Service Post (Po	syandu)

1005.	Abstract: Integrequires a compurer of the second se	rated Service Post or Pos Pelayanan Terpadu (Posyandu), as a community service facility, therized support facility. It can help manage baby data and help parents monitor their baby's earch uses a descriptive method. While the method of data collection uses observation and imary data and collection of documents needed for secondary data. The development method . The results of this research is a website that can be used as supporting facilities in managing lping parents monitor baby's growth. The system created displays a chart of baby's weight and ns that can be given are the need for additional systems for managing data for pregnant women site, online, posyandu to 2 Oktober 2015 in Posyandu Dalam Meningkatkan Kualitas Kesehatan Masyarakat Di Dusun Karangwatu, Desa Pucungrejo, ntilan, Kabupaten Magelang, Skripi, 2010 , Sina B, Yolanda, "Faktor-Faktor Yang Bertubungan Dengan Minat Du Terhadap Penggunaan Alat Kontrasepsi (AKDR) Di Puskesmas Tuminting Kota Manado, e-Journal Keperawatan (eKp) volume 3 Nomor 2 Oktober 2015 isten Informasi Pelayanan Kesehatan Bayi dan Balita Pada Posyandu Delima Bandung. 2014. "Aplikasi Pengelolaan Data Posyandu" Junal Inovte Nolbeng - Sein Informatika, vol. 2, pp. 1-7, Juni 2017. (angienen Sistem Informasi, Jakarta, Gramedia Pustaka Utama, 2003 , "Analisa dan Desain Sistem Informasi: Pendekatan. Terstruktru Teori dan Praktik Aplikasi Bisnis, ANDI, sdir, A. 2003 isis Perancangan Sistem Informasi Keunggulan bersaing Perusahaan dan Organisasi Modern, Yogyakarta: Andi, tergaman Web dengan PHP, Bandung: Informatika Bandung. 2004. at Aplikasi Web dengan PHP, Yogyakarta: Andi, 2009. I. Suendi "Sistem Informasi Pendataan Bayi," JATI - Jurnal Teknologi dan Informasi Unikom, no. 6, vol. 01,	29-32
	Authors:	Kiagus Ahmad Roni, Merisha Hastarina, Netty Herawati	
	Paper Title:	Effects of Yeast's Weight and Fermentation Time to Percent Yield of Bioethanol from I	Peatlan
1006.	Abstract: Renew dioxide emission replace solar fue Indonesia. This re- reduction and ener- yeast was used an chromatograph (C research also com- may improve the bioethanol (from) Keywords: Bioet References: 1. Page, SE an Southeast A 2. Rieley J.O., Research C	rable energy development in Indonesia is one of the government's programs to reduce carbon and dependence to fossil fuel. Bioethanol is an alternative energy that can be developed to l. Peat is a source of bio-ethanol which is very potential because of its abundant source in esearch investigated the lifecycle of bio-ethanol from peat, resulting in carbon dioxide emission ergy net. Fermentation method was used to produce bio-ethanol from peat. In the fermentation, ad the fermentation temperature was from 20°C to 40°C. The products were analyzed by a gas GC). The results showed that at the 10th day, the bioethanol production was the highest. This incerns to the side effects of by-products from bioethanol production. The use of by-products environmental performance and bioethanol energy until 30-70%. This research showed that peat) development in Indonesia is much better compared to other countries. thanol; Peat; Renewable energy; Strong acid; Yeast and Rieley, J. O., 1998. Tropical peatlands: a review of the natural resource functions, with particular reference to isia. International Peat Journal, 8 pp. 95-106 Page S. E., 2005. Wise Use Of Tropical Peatlands: Focus On Southeast Asia, Alterra. Wageningen University and entre and the Eu Inco-Strapeat And Restorepeat Partnership, Wagenigen.	33-38

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5. Terindeks Scopus



Web-Based Information System of Baby Data Management of Integrated Service Post (Posyandu)

Novrini Hasti, Machdalena, Andri Sahata Sitanggang

Abstract: Integrated Service Post or Pos Pelayanan Terpadu (Posyandu), as a community service facility, requires a computerized support facility. It can help manage baby data and help parents monitor their baby's growth. This research uses a descriptive method. While the method of data collection uses observation and interviews for primary data and collection of documents needed for secondary data. The development method used is prototype. The results of this research is a website that can be used as supporting facilities in managing baby data and helping parents monitor baby's growth. The system created displays a chart of baby's weight and height. Suggestions that can be given are the need for additional systems for managing data for pregnant women and the elderly.

Index Terms: website, online, posyandu

I. INTRODUCTION

Posyandu is a public health service unit specifically for infant to toddler health. Every parent who has a baby or toddler, surely want their child grow and develop well. [1] [2]. With the current technological developments, posyandu can be utilized as a support tool to facilitate the implementation of posyandu activities. Posyandu holds monthly health services specifically for babies and toddlers. These services include weight weighing services, immunizations and babies and toddlers nutrition examination service. At present the data management in each activity at the posyandu is still not computerized. It can cause some obstacles for the Posyandu, including the risk of damage and loss of data because the data is still stored in paper or books, data search difficulties because the data is not stored neatly and the data sought must be checked individually.

On the other hand, parents cannot monitor their child growth and development because those who take their child to the posyandu are other people, such as their babysitters or grandmothers. Parents cannot monitor their child's growth directly. [3]

The difference between this research and the research conducted by Julia Kamsinah [4] is in terms of the application made. In this study the applications made for Posyandu Delima can be accessed by the Posyandu cadre only and do not display a baby growth chart, such

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as a graph of infant weight growth. Whereas in this research the researchers created an online application that can be accessed by parents of babies, posyandu cadres, village parties and puskesmas. This is done so that the parents of babies who are unable to attend the posyandu activities or when the book recording the baby's development data is lost, the parents do not need to worry because they can still access their baby's development data on this online application. This application also facilitates the delivery of reports from the posyandu to village leaders and puskesmas.

Similar to other studies, carried out by Musliani, Lidya Wati, and Sri Mawarni [5], namely the resulting application can only be accessed by the Posyandu cadres but it is also intended for data management of pregnant women. While in this study, besides the application that was made was an online application that could be accessed by several parties involved, in this study the application made was only intended specifically for the management of baby data.

The purpose of this study are to analyze the baby data management system that runs in the posyandu, namely to find out the problems that occur in the system that are currently running. The second is to design a baby data management information system that can be used to help facilitate data search, reduce the risk of loss and damage to data, assist in making reports and help parents monitor baby's growth and development. Third, to implement the design results into a programming language that will later produce applications that are expected to become supporters in all posyandu activities. The fourth, to test the suitability of the application, is it in accordance with the design made and can assist in the management of data at the Posyandu.

II. LITERATURE REVIEW

A. Application

Application is a type of software that functions to perform a specific task based on user needs by using a computer as a supporting tool. [6] [7]

B. Information Systems

Information system is a stage for presenting information in various ways so that information can be useful for recipients [8]. It can be said

that information systems



are a way to produce useful information in making a decision.

C. Posyandu

Posyandu is a form of Community Based Health Unit that functions as an organizer of health development and

provides convenience for the community in obtaining health services. The main activity at the Posyandu is monitoring baby's growth. [1]

D. PHP

PHP or Hypertext Preprocessor is a programming language used in the development or development of a website. Using PHP allows maintenance of a web to be done easily. PHP can retrieve data from forms, make pages dynamic, and accept cookies. This database can be used with PHP including MySQL, SQLite, ODBC, Oracle, Unix DBM, PostgreeSQL, Hyper wave and others. [9]

E. MySQL

MySQL is a system software used to manage SQL databases or often called the Database Management System (DBMS). Some of the advantages of MySQL

include free download by anyone, flexible with various programming and ease in database management. [10]

III. METHODS

The research method is the steps taken to obtain data and to collect information that can later be used for a scientific study. The research method used is descriptive method. As well as the method of data collection used, namely using the method of observation and conducting interviews with several related parties and obtaining data from several documents used by the posyandu. The structured approach method in this study is used to approach the system. And using a prototype development method for development in building systems that exist in this study. The prototype has three stages in solving the problem including listening to consumers, then designing and making and conducting trials of the system [11].

IV. DISCUSSION

A. Proposed System Design

System design is a new system development that is carried out to overcome the problems of the existing system [12– 15]. From this study the differences with the previous system are found in the data management process, with a computerized data management process. And the addition of several features that can be used to help convey or provide information about baby's growth to the parents of the baby. Figure 1 shows the DFD of the proposed system:



Figure 1. Context Diagram Proposed Baby Data Management Information System

V. IMPLEMENTATION A. Software Implementation

In the construction of a baby data management information system at the Posyandu, researchers used several supporting applications including Sublime Text 3 text editor, XAMPP v3.2.2, Google Chrome Version 67.0.3396.87 and using the Windows 10 operating system. The software used by the Posyandu included Systems Minimum operation using Windows XP, minimal browser Internet Explorer.

B. Hardware Implementation

Some hardware that can be used to operate applications are using a minimum of Intel core 2 duo processors, at least 1 GB of RAM used, 70GB or more hard drive, HUB, UTP cable and RJ-45 connector, mouse, keyboard, monitor and printer.

C. Interface Implementation

An implementation of the interface of a baby data management information system at the posyandu is given below:



Figure 2. Login Interface

Figure 2 shows that to log in, the Posyandu Cadre will enter a username and password that was created previously. If the login is successful, the posyandu cadre will enter the home page or main page of the system.

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Figure 3. Interface Posyandu Activities Form

The activity menu is a menu used by posyandu cadres to enter data on posyandu activities that will be displayed on the login page.

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Figure 4. Interface Baby Registration Form

When the child is weighing for the first time, the child's identity will be entered into the registration form.

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Figure 5. Interface Weighing Form

After the child registers, the posyandu cadre will weigh the child and the weighing results are inputted into the weighing form. Posyandu cadres will explain the weighing data according to the child's weighing status.

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Figure 6. Interface Baby weighing chart

Parents can see the development of the child's weight. To be able to see the weighing graph, parents must enter the weighing graph sub menu then enter the weighing year to be seen and choose their child's name then by clicking the submit chart button will appear.

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Figure 7. Interface Baby Immunization Form

The immunization menu contains data on children who have been immunized at the posyandu.

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The child service menu contains data on children who have done services at the posyandu

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If there is a child die in the working area of the Posyandu, the Posyandu cadre will input it to the child death form.

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Figure 10. Interface Add user data form

This user-added menu is used to create new users for the village or posyandu cadres.





Figure 11. Interface Report Form

Figure 11 shows menu for report printing.

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Figure 12. Interface Per-baby Report Form

This report menu is used if parents want to print their child's weighing, immunization, or child care data. Parents just have to choose their child's name and click print.

VI. CONCLUSION AND SUGGESTION

The conclusion of this research is that the new baby data management information system can reduce the risk of data being damaged or lost due to the existence of databases, facilitate the search for data for reporting, help parents monitor the development of their babies and anticipate data on the development of missing or damaged babies.For the next research, researchers can provide more features such as adding features for managing maternal data, data for the elderly, adding a system for calculating immunization vaccine stocks and infant nutrition screening services.

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