



IJRASET

International Journal For Research in
Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 7 Issue: V Month of publication: May 2019

DOI: <https://doi.org/10.22214/ijraset.2019.5005>

www.ijraset.com

Call:  08813907089

E-mail ID: ijraset@gmail.com

Proposed about Handy Intelligent Device to Alert and Ordeit Home Budget for People to Maintain Home Needy without Credit

Dr. S. Hemalatha¹, B. Arulsevi², K. Indhumathi³

¹Professor/CSE, Panimalar Institute of Technology

^{2,3}Department of Computer Science, Panimalar Institute of Technology

Abstract: *Implement Associate in Nursing alert and programing for payment system for each month. during this we've got Associate in Nursing take into account each month like, Grocery, diversion, Transportation, Shopping, medical, EB bill and food & vegetables. User should allot a selected quantity as per their expenditure. humanoid application can monitor the behavior of the user as per the expensed created by the user and alert the user consequently to chop down the expenses then on management the expenses as per the schedule. Same approach we tend to connect Eb meter mistreatment LiFi and IOT. LiFi Transceiver is connected to each User Eb Meter and Eb Server. The meter readings square measure calculated through the embedded hardware and sent to the Eb Server via IOT. Same logic is additionally processed by the humanoid application..*

I. INTRODUCTION

A standout amongst the most troublesome difficulties of actualizing a monetary arrangement is planning. This is because of the way that the vast majority of us live bustling lives and can't discover an opportunity to follow each budgetary exchange. when felt that family unit planning programming would make it less demanding to remain on track. In spite of the way that planning programming assembles, stores and examines budgetary information, the money related circumstances scarcely improve when utilize these hey tech arrangements. This features a basic money related arranging idea; more often than not thr monetary circumstances will possibly improve when choose to change the ways of life. Planning causes and empowers to make these occasionally fundamental changes. At the center of a family unit spending plan is a money related arranging articulation called the announcement of money streams. This record shows and ascertains the majority of the salary (money inflows) and costs (money surges) of an individual, family. So can make a financial plan by social event your monetary information, making an announcement of money streams at that point anticipating what your salary and costs will be later on

II. PROPOSED SYSTEM

In this propose system Associate in Nursing alert and programing for payment system for each month. during this we've gotAssociate in Nursing take into account each month like, Grocery, diversion, Transportation, Shopping, medical, EB bill and food & vegetables. User should allot a selected quantity as per their expenditure. humanoid application can monitor the behavior of the user as per the expensed created by the user and alert the user consequently to chop down the expenses then on management the expenses as per the schedule. Same approach we tend to connect Eb meter mistreatment LiFi and IOT. LiFi Transceiver is connected to each User Eb Meter and Eb Server. The meter readings square measure calculated through the embedded hardware and sent to the Eb Server via IOT. Same logic is additionally processed by the humanoid application..

III. ARCHITECTURE DIAGRAM

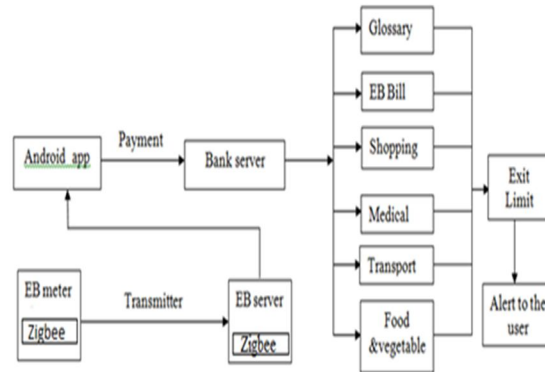


Figure 2.1 Overall Architecture

IV. DIAGRAMS

A. Use Case Diagram

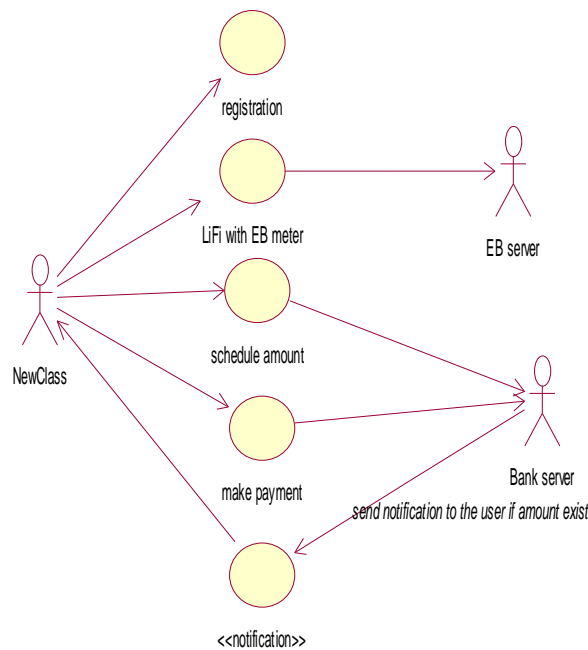


Fig 3.1 USE CASE DIAGRAM

Fig 3.1 shows the first step is registration and scheduling the amount and make a payment using a bank server and for EB meter the LiFi Technology is used for communication or to collect the information about reading . and if any other expenditure exist its limits then user will get notified .

B. Class Diagram

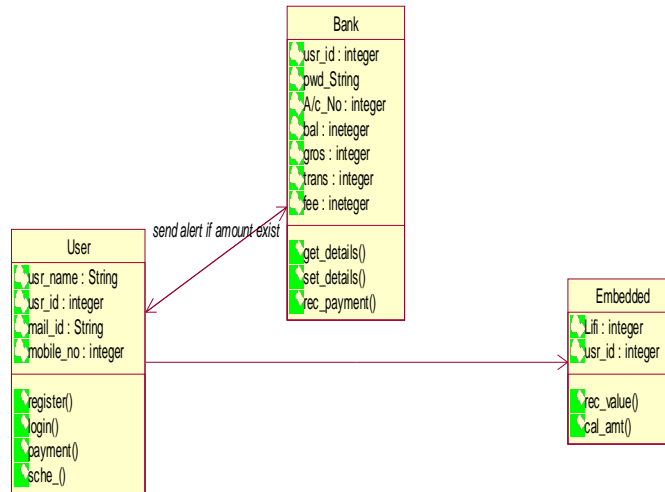


Fig 3.2 CLASS DIAGRAM

Fig 3.2 show in the user part all the user detail will collected for eg user name , user id, mail.id , mobile .no, and in bank part the user bank detail will be collected foe eg user id ,password, account number ,balances, etc. .. and embedded part zigbee and user id will be there.

C. Sequence Diagram

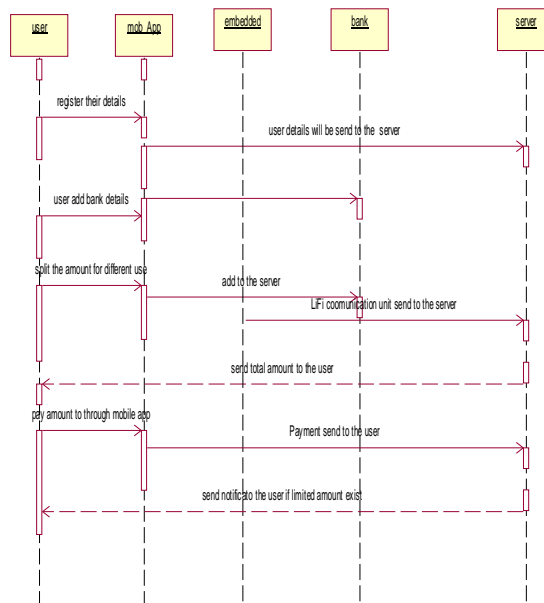


Fig 3.3 SEQUENCE DIAGRAM

Fig 3.3 shows the first user will register their details and bank details and split the amount for different usage to the mobile application and application to server and EB meter is connect to the zigbee for communication and payment is done by dank server and if any other expenditure exist their limits then the user will be get notified.

D. Collaboration Diagram

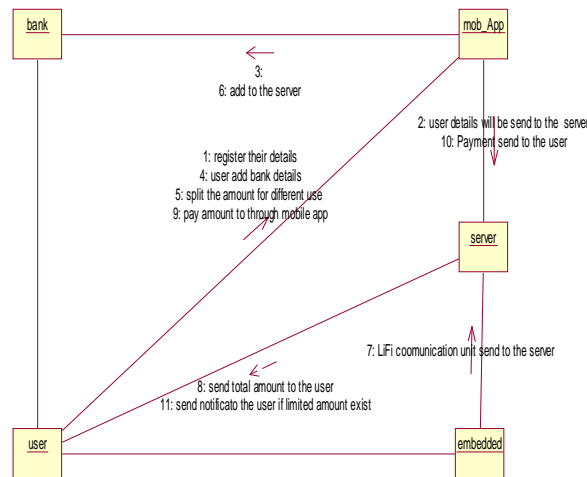


Fig 3.4 COLLOBORATION DIAGRAM

Fig 3.4 shows the first user register their details then user details will be send to the server then user add bank details and split the amount for different use and that will be add to the server and zigbee communication units is send to the sever and sent total amount to the user and payment is done through mobile app and payment sent to the user and sent notification the user if limited amount exist.

E. Activity Diagram

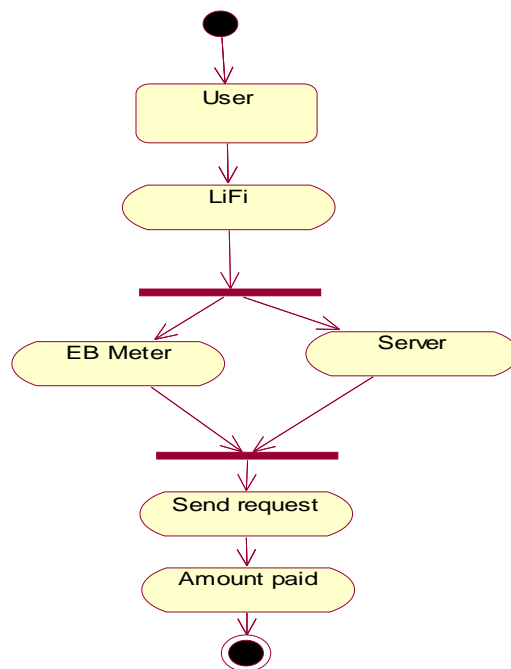


Fig 3.5 ACTIVITY DIAGRAM

Fig 4.7 shows the zigbee is connected to EB meter and server and Eb meter and server send the request and amount is paid.

V. MODULES

| S.NO | LIST OF MODULES |
|------|------------------------|
| 1 | USER REGISTRATION |
| 2 | EB SERVER |
| 3 | SCHEDULE EXPENSES |
| 4 | ANDROID PAYMENT SYSTEM |

A. User Registration

In this Module every user will be Register with the Server. So user has to give User Name, Password, Address, Mobile number and other details. In the Login module mobile user can login by their User Id and password and make request for their home, office or firm electric bill details. This request will send to the centralserver mobile and collect data from it and response to the end user.

B. EB Server

In the Main EB Server all the small print of the user ar keep. Zigbee boards ar connected with the RS 232 port of the EB Server. Real time time itinerant is connected with the EB Server for causation SMS to the shoppers egarding the number info. This server can have the complete knowledge of all thecustomers' info.

C. Schedule Expenses

This module describe about the scheduling of payment based on budget. User will allot expense budget for glossary, medical, EB , fees and other expenses. People will limited expenses for every process they do. If scheduled budget cross the limit notification will send to the user.

D. Android Payment System

User can give the payment through online itself. So that this process reduces customers going directly standing in the queue to pay money. And the payment system is developed by android application so that the user can pay by his android phone

VI. CONCLUSION

We implement AN alert and planning for payment system for each month. during this we've AN allow each month like, Grocery, recreation, Transportation, Shopping, medical, EB bill and food & vegetables. The meter readings square measure calculated through the embedded hardware and sent to the Eb Server via IOT. Same logic is additionally processed by the mechanical man application.

REFERENCES

- [1] G. Giaconi, D. Gunduz, and H. V. Poor, "Smart meter privacy with an energy harvesting device and instantaneous power constraints," in Proc. IEEE Int. Conf. on Commun., London, UK, Jun. 2015, pp. 7216–7221.
- [2] Y. Mo, T.-H. Kim, K. Brancik, D. Dickinson, H. Lee, A. Perrig, and B. Sinopoli, "Cyber-physical security of a smart grid infrastructure," Proc. IEEE, vol. 100, no. 1, pp. 195–209, Jan. 2012.
- [3] F. Li, B. Luo, and P. Liu, "Secure and privacy-preserving information aggregation for smart grids," Int. J. of Security and Networks, vol. 6, no. 1, pp. 28–39, Apr. 2011.
- [4] I. Rouf, H. Mustafa, M. Xu, W. Xu, R. Miller, and M. Gruteser, "Neighborhood watch: Security and privacy analysis of automatic meter reading systems," in Proc. ACM Conf. on Comput. and Commun. Security, Raleigh, NC, USA, Oct. 2012, pp. 462–473.
- [5] A. Molina-Markham, P. Shenoy, K. Fu, E. Cecchet, and D. Irwin, "Private memoirs of a smart meter," in Proc. ACM Workshop on Embedded Sensing Systems for Energy-Efficiency in Building, Zurich, Switzerland, Nov. 2010, pp. 61–66.
- [6] G. Kalogridis, Z. Fan, and S. Basutkar, "Affordable privacy for homesmart meters," in Proc. IEEE Int. Symp. on Parallel and Distributed Process. with Applicat. Workshops, Busan, Korea, May 2011, pp. 77–84.
- [7] F. D. Garcia and B. Jacobs, "Privacy-friendly energy-metering via homomorphic encryption," in Proc. Int. Conf. on Security and Trust Manage., Athens, Greece, Sep. 2010, pp. 226–238.
- [8] C. Efthymiou and G. Kalogridis, "Smart grid privacy via anonymization of smart metering data," in Proc. IEEE Int. Conf. on Smart Grid Commun., Gaithersburg, MD, USA, Oct. 2010, pp. 238–243.
- [9] G. Kalogridis, C. Efthymiou, S. Denic, T. Lewis, and R. Cepeda, "Privacy for smart meters: Towards undetectable appliance load signatures," in Proc. IEEE Int. Conf. on Smart Grid Commun., Gaithersburg, MD, USA, Oct. 2010, pp. 232–237.



- [10] D. Varodayan and A. Khisti, "Smart meter privacy using a rechargeable battery: Minimizing the rate of information leakage," in Proc. IEEE Int. Conf. on Acoust., Speech and Signal Process., Prague, Czech Republic, May 2011, pp. 1932–1935.
- [11] D. Gunduz and J. Gomez-Vilardebó, "Smart meter privacy in the presence of an alternative energy source," in Proc. IEEE Int. Conf. on Commun., Budapest, Hungary, Jun. 2013, pp. 2027–2031.
- [12] J. Gomez-Vilardebó and D. Gunduz, "Privacy of smart meter systems with an alternative energy source," in Proc. IEEE Int. Symp. on Inform. Theory, Istanbul, Turkey, Jul. 2013, pp. 2572–2576.
- [13] K. Chatzikokolakis, C. Palamidessi, and P. Panangaden, "Anonymity protocols as noisy channels," *Information and Computation*, vol. 206, no. 2, pp. 378 – 401, 2008.
- [14] R. Blahut, "Computation of channel capacity and rate-distortion functions," *IEEE Trans. Inf. Theory*, vol. 18, no. 4, pp. 460–473, Jul. 1972.
- [15] S. Li, A. Khisti, and A. Mahajan, "Privacy-optimal strategies for smart metering systems with a rechargeable battery," arXiv:1510.07170[cs.IT], Aug. 2016.



10.22214/IJRASET



45.98



IMPACT FACTOR:
7.129



IMPACT FACTOR:
7.429



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089  (24*7 Support on Whatsapp)