

USAGE OF LARAVEL FRAMEWORK IN INFORMATION MANAGEMENT SYSTEM FOR EXTENSION EDUCATION AND RESEARCH CENTERS OF AAU

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ABSTRACT

Information and communication technology is becoming very popular day by day. Anand Agricultural University believes in use of ICT in education, research and extension. Each extension center store and manage the information manually for research and report purpose. This paper presents the concept of information management for the various extension activities and programmes of AAU. The system was developed using PHP Technology having Laravel MVC framework as application development framework and MY SQL as database server. System is managing information regarding training data, FLD programmes, on farm trial performed, extension activities and budget information of extension and research centers. This online application is flexible with many user-based options. For each extension activity system enables to store and manage the details of participants. System is also providing facility to record the details of success stories of farmers with photographs and links. This paper provides a framework for management of extension activities through the use of ICT-enabled services in Anand Agricultural University.

Keywords: *information, communication, activities, services, extension, research, laravel*

INTRODUCTION

Information management is very much important for each institution. Web based system stores and manages the large amount of information, which can be used for reporting purpose and decision making by the scientists and researcher. Previously at AAU information related to extension activities and other details were managed at local level by the respective centers. This system provides a centralized record keeping system for the on campus and off campus center of AAU. It's very tedious work to compile the information of each center. This system provides a user friendly GUI and enable to manage various extension activities by the different extension education centers of AAU. Currently there are 63 users from 48 centers were entered the information of their center. PHP is server side scripting language compatible with Windows, Linux etc. Nowadays Laravel framework is being extensively used by programmers because it provides

standard templates and plug-ins to code faster and user-friendly way. For storage of data MySQL is utilized as back end tool in this system.

OBJECTIVE

To know the usage of laravel framework in information management system for extension education and research centers of AAU

METHODOLOGY

Web based system is developed using the Laravel framework of PHP open source technology. MVC (Model, View & Controller) pattern is used in the development of website. MVC pattern ensures clarity between logic and presentation layer. Figure 1 shows the Laravel MVC architecture.

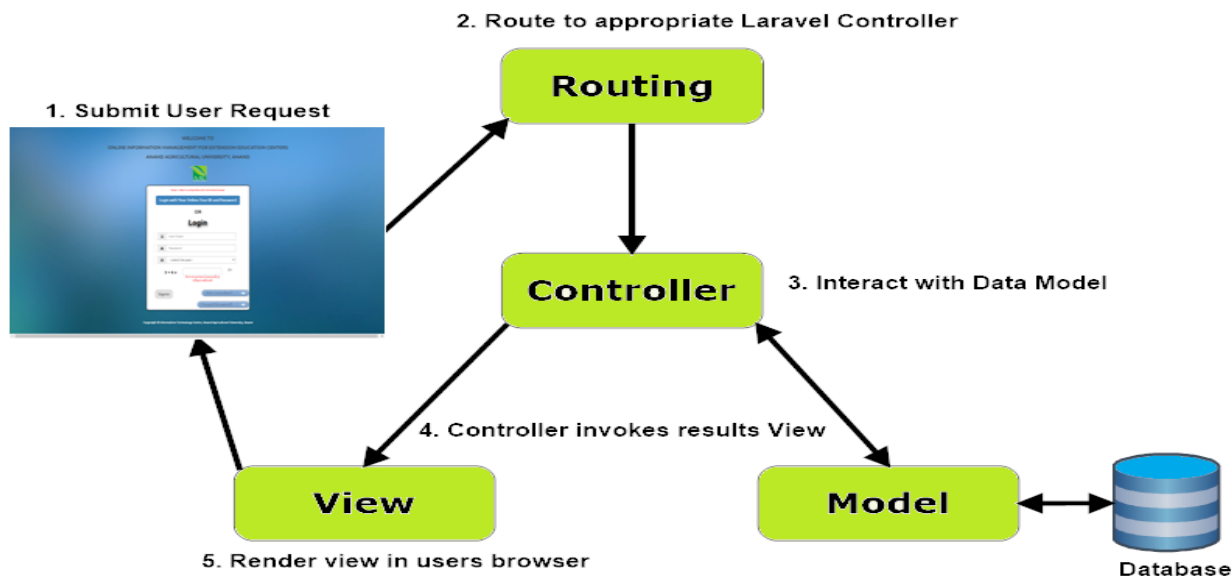


Fig 1 : Laravel MVC Architecture

Scientist of AAU has to first register to login to the system. After successfully activation, user can login and use the different modules of the system (Fig-2). User can insert, update and view the details of each module. This system has admin and user modules. System manages the training regarding information, activities of FLD programmes, on

farm trials etc. Respective user of the center can manage budget in a well-organized structure. Admin is able to manage all the activities for all the centers and can download the different kind of reports as per their requirements. This software is made with many more spatiality.

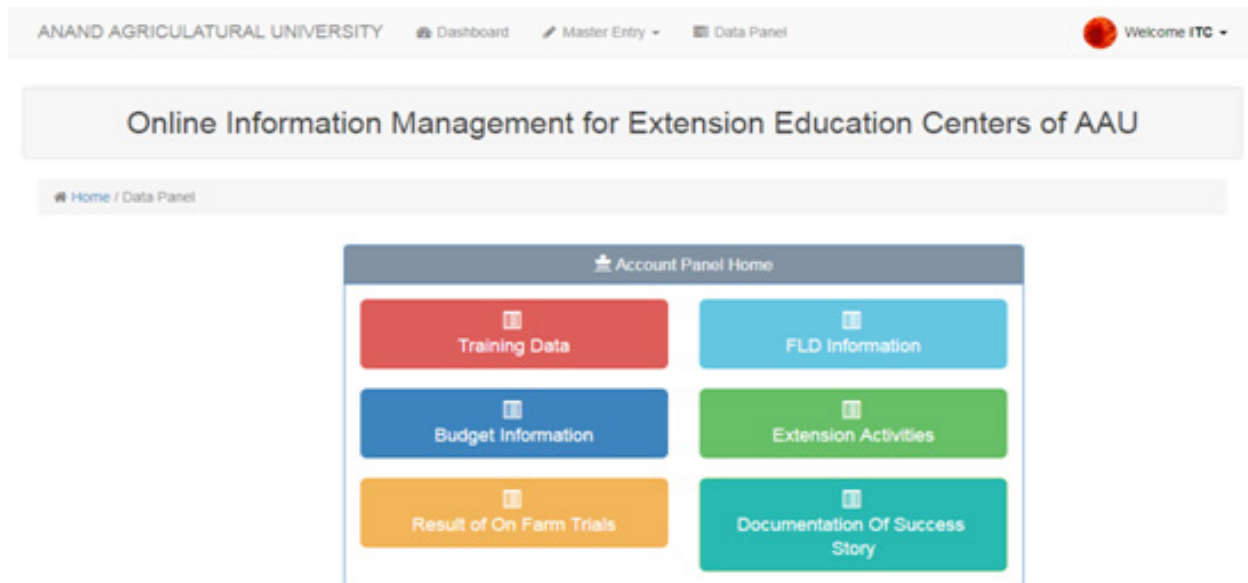


Fig 2 : Different Module of System

RESULTS AND DISCUSSION

Web based Information Management of Extension Education Activities system is used by the scientist of the Anand Agricultural University since last 2 years. Total 46 active users are there in the current system. Users belong

to Agricultural research station and Krishi Vigyan Kendra of Anand Agricultural University including on campus and off campus stations. figure 3 shows the no. of entries by the different AAU centers and figure 4 shows the year wise entries for the different modules.

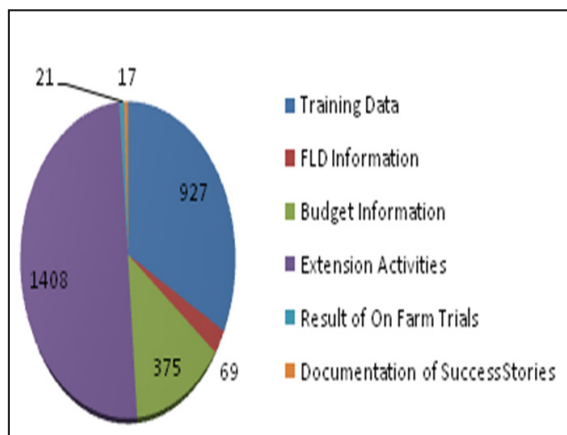


Fig 3 : No. of entries for different module

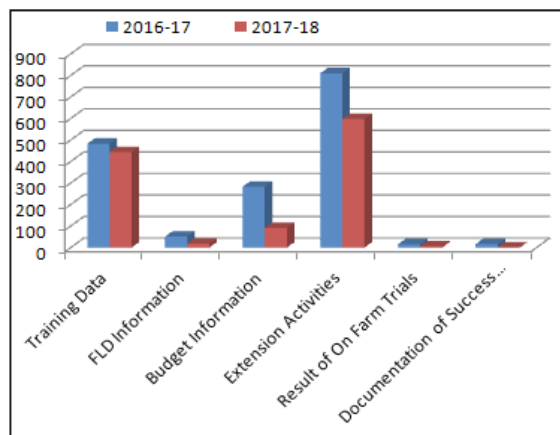


Fig : 4 – No. of entries year wise

The developed system is used for efficient monitoring and control of training activities. System stores the details about the training name, start and end date, category wise no. of participant, budget information, technology in FLD, FLD yield, cost of cultivation, gross return, net return, farmer details of OFT etc. User can manage and store the information and able to download the statistical reports. Each center has the module for budgetary control which manages the details of recurring and non-recurring contingencies and revolving fund details. System provides the better GUI for managing the details of front line demonstrations for different seasons and crops. The system will enhance productivity of extension education centers as a whole. Different centers activity log is also managed by the system too.

CONCLUSION

ICT is becoming very popular in agricultural sector. Anand Agricultural University is accepting the technological innovations and implementing ICT at university. The system stores and manages the large volume of data related to extension activities of the university with low cost. This

system will deliver better value for the users of SAU's of Gujarat by sharing common system framework and resources. Adoption of ICT technology will increase efficiency of user and accuracy of data and helpful in rapid growth as a whole.

REFERENCES

- imec.aau.in
- <https://laravel.com>
- L. Alfat, A. Triwiyatno and R. R. Isnanto, "Sentinel web: Implementation of Laravel framework in web based temperature and humidity monitoring system," *2015 2nd International Conference on Information Technology, Computer, and Electrical Engineering (ICITACEE)*, Semarang, 2015, pp. 46-51.
- Vishal V. Parkar, Prashant P. Shinde. "Utilization of Laravel Framework for Development of Web Based Recruitment Tool". *IOSR Journal of Computer Engineering (IOSR-JCE)* e-ISSN: 2278-0661,p-ISSN: 2278-8727 PP 36-41