Academic feedback system automation for an educational organization

R.Tamilkodi[1], K.Valli Madhavi[2], Shrija Madhu[3], B.Sujatha[4]

[1]Professor, Department of CSE (AIML&CS),[2,3,4]Professor, Department of CSE
[1,2,3,4]Godavari Institute of Engineering and Technology ,Rajahmundry,Andhra Pradesh,INDIA
[1]tamil@giet.ac.in.[2]vallimb@yahoo.com.[3]shrija@giet.ac.in,[4]bsujatha@giet.ac.in

Abstract: For the educational improvements every college will require a student feedback system to assess the quality of the faculty members performance.This work focus on online feedback system to rate and analyse the faculty's concert. This online feedback system reduces the arduous work of physially examining the feddback pages of each and very student.The system also reduces the lumber of efforts and encumber of observance and maintaining the records on maual basis,which occupies more place in the room to keep those records as well as difficult in maintaining those records.Drawback of the manual feedback system is the students will get fear if the faculty came to know about the report given by the students. To overcome these sort of issues this online system will provide safety and privacy for the students to give thier feedback and is not mandatory to give the feedback by showing his physcal presence to the faculty of the admin instead they can directly access the online feedback link directly from their mobile or Laptop to enter the feedback for the faculty members. Experimental results shows that the online system developed for educational system provides easy way to assess the faculty members as well as other activities which have been taken inside the campus through the feedback received from the students on time to time basis without delay.Instead of spending so much paper based materials and setting the questions to be asked in the for of queires and collecting it from the students and doing analysis from that which leads to a tedious process.Keeping all these drawbacks this online feedback system has been developed to acccess this system anywhere and the report has been generated immediately based on the faculty name wise as well as the system will be used for taking feedback from the participants for the various events happening within the campus such as workshop,FDP,Conference etc..

Keywords: Faculty performance, online feedback system, students feedback, educational system, less paper work.

1. Introduction

At the present time , educational Institutions are paying growing concentration to the views of student's on the participation in knowledge and coaching from beginning to end reviews or feedbacks .This web based application provides a base for conducting feedback through online for college students to know the performance of the faculty as well as to the participants participated in various events conducted like FDPs,Conference,Workshop etc..In educational system at pesent scenario online interaction is very popular for academic domain.As the online classes are growing popular we need to identfy a system which is flexible, easy and accurate to give analysis reports.Taking into consideration of all educational practices an integrated online academic feedback system has been developed to evaluate the performance of the faculty members through students by giving the ranking based on the queires given in the ssytem the students will give their ranking based on the attributes mentioned.Once the student has attempted all the question he will submit his feedback with the system.

The assessment is based on students' responses in SUFO, which assessed professors' abilities based on professionalism and teaching approaches. The findings of this exploratory study comparing the coaching eminence of experienced and inexperienced lecturers are given. Student evaluation on the teaching quality of experienced and inexperienced professors is equivocal, while equal types of lecturers received low and high ratings from students[1]. It is critical for teachers and students to communicate effectively in order to succeed in any teaching programme. Student feedback assists teachers in improving their performance and conduct. The semantic web (SW) is a gifted tool for data retrieval and selection. For obtaining relevant information from web data, many web mining techniques are applied. The major goal of this research is to extract knowledge from student comments, which may be accomplished by using Sparql inquiry in Ontology. This information can be expressed in a significant way. The webbased student feedback system is a web-based feedback collection structure for students that allows for the automated creation of input from students.

The present procedure followed by the educational institution is paper based.Feedback form has been distributed to the students to fill the form which consists of certain attributes which should be selected by the students by tick marking.Once the form has been submitted it will be collected and analysis will be made on by go throughing the filled form submitted by the students.After analysis the report has been submitted to the principal for necessary action to the faculty members whose performance was not up to the mark.But acessing the report based on manual is time taking process and the report given by the students also

won't be genuine as the faculty will be making rounds while filling the form.To overcome the difficulty faced by the present scenario this web based feedback system has been developed to generate the report on time based on faculty wise,subject wise,events wise immediately after scheduling the time for the students to give your feedback through online link irrespective of showing the physical presence.

2. Related System

This gives an outline of tertiary institutions' online student feedback systems. It then introduces SUFO, a student feedback online system created and deployed in a Malaysian public institution. Following that, this study explains how SuFO data is utilised to evaluate the teaching eminence of experienced and inexperienced delivery contetn by the faculty members. The assessment is based on students' responses in SUFO, which assessed professors' abilities based on professionalism and teaching approaches. The findings of this exploratory study comparing the teaching quality of experienced and inexperienced lecturers are given. Student evaluation on the training eminence of experienced and inexperienced professors is equivocal, while mutual types of lecturers received low and high ratings from students [3].It is critical for teachers and students to communicate effectively in order to succeed in any teaching programme. Student feedback assists teachers in improving their performance and conduct. The semantic web (SW) is a capable tool for data retrieval and selection. For obtaining relevant information from web data, many web mining techniques are applied. The major goal of this research is to extract knowledge from student comments, which may be accomplished by using Sparql Query in Ontology. This information can be expressed in a meaningful way. The online student feedback system is a web-based feedback collection system for students that allows for the automated creation of input from students. I created a student feedback mechanism to deliver quick and easy input to the appropriate department. As result, named it a student feedback system that provides as an online system via the student staff interface and serves as a service provider. Because the present method takes longer to complete a task, the online system feedback has been incorporated. Students will use a standard form to provide comments online. Security is also maintained in this project, with the outcome of feedback available only to authenticated users. It is concerned with a possible implementation of a student feedback system.

Feedback can be given manually or electronically with the current system. Students can offer comments using paper and pen in the manual procedure, but collecting all of the papers and sending them to the appropriate department is a time-consuming task. They will lose feedback documents along this procedure. Some educational institutions collect comments online, however data is missing owing to a lack of upkeep. To address all of these concerns, I created a web-based programme that allows me to get accurate feedback from students.

3. Projected System

The anticipated system solved difficulties of above mentioned, the presented system is easy to give the

feedback through online by using student feedback web application , through this application student can give the feedback in a easy way, Student login into this application by using their roll number/pin number, here student can also change their password. After giving the feedback it can generate report automatically this report can be reviewed by admin, Admin can send the reports to the corresponding department and principal, in this system faculty can also view by individual faculty feedback report by using their bio-metric id. In this feedback system students can give their feedback as a five point rating for these corresponding elements, they are syllabus coverage, clarification of doubts, usage of black board or physical elements, explaining real time examples, utilization class rooms and laboratories, communication skills of faculty and subject knowledge of the faculty. Here the five pointing rating system defines the quality of feedback as excellent, very good, good, satisfactory and poor. The foremost aspire of this feedback system is to diminish the cost efficiency and time.

4. Gaps Identified

In present system, students are informed to fill the form by distributing manually to them.Taking ssessment from those forms is difficult and also identifying the missing students is also very hard.We should remember the time period to take feedback from the students depends on the number of times and also if the student is absent for the particular day while the feedback is taken then the report what we receive would not give accurate results which will reflect in the performance assessment of the faculty.Maintaining back date information in the form of paper is also difficult .To overcome these problems the proposed system finds solution by developing the system in which one can create the feedabck,generate the report and also easy to access the old data and analysing the imforamtion received from the students is easier.

5. Implementation of Proposed Feedback System

This system provides fast and quick online feedback for the educational system about the faculty performance by the student at anyplace by just login from their valid account. This work has four different module student, staff and admin. This system has focussed on all approaches about the practices and the process which is considered related to students level of awareness.The Academic feedback system is used in educational organization for managing the information system for the feedback obtained from the student about the faculty members who taught the subjects related to the particular semester. This proposed system is an automatic package which gives the genuine feedback about the faculty members about the lecturer taught in class and the eavlaution has been categorized as always,poor,usually,very often,sometimes.The anticipated system architecture has been shown in figure 1.
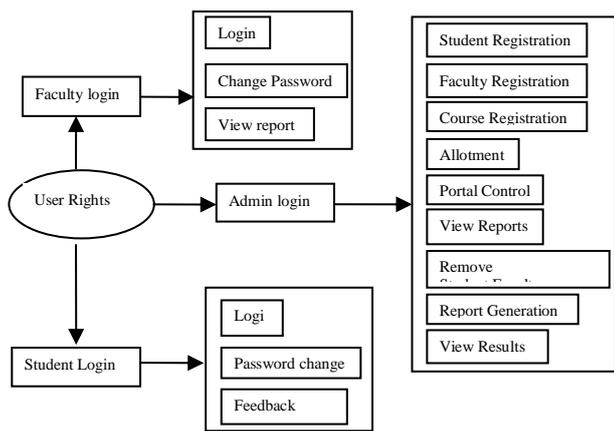
Fig:1. Shows the Proposed System architecture

6. Describtion about the modules present In The Proposed System

A. Admin Login Page

Administrator can start the web application and login into Admin module .In this admin login page we have a these modules they are 1. Student Registration 2. Faculty Registration 3. Course Registration 4.Allotment 5.Portal Control 6.View Reports 7. Remove Student 8.Remove Faculty. Admin can collects faculty and students data to create faculty and student login accounts with username and passwords.Here admin can collect the all information from the each and every department. After collecting the information they can allot the subject information and assigned faculty. Admin can do to add persons or remove persons.After completion of admin process they can enable the portal control , after enables students give the feedback.To view all the feedback reports and download the reports to send corresponding departments and principal.

B. Student Login Page

In this Student login page only Registered Students can login into Student Feedback page and they can post the ratings without student registration can not access this Student Feedback Application. Students can login into feedback form by using their pin numbers.After login students can post the ratings , the ratings in the form of 1to5.Here Students can change their password it is an optional the default password is student pin number

C. Faculty Login Page

In this Faculty login page only Registered Faculty's can login into Student Feedback page and they can view their feedback results without Faculty registration can not access this Student eedback Application. Faculty can login into feedback form by using their Bio-metric id.After login faculty can check their reports and get the information branch and subject details.Here faculty can change their password the default password is faculty Bio-metric id.

7. Features of the Proposed Feedback System

The crucial features and recompense of online feedback system are programmed below

Cost- effectiveness using this system reduces the cost of paper and in person checks which are conducted also the administration cost is compact.

Time redeemer feedback software saves a lot of time and trouble. Through this system, you can snappily induce, gather and scrutinize checks. Performing all of these functions in one integrated web system saves you a expansive quantum of time.

Convenience It's veritably accessible for druggies to entire online checks. Actors can fill out forms when they decide to start and stop a check at their ease.

Availability Administering your checks through an online system increases availability. Link of the check can be transferred via Gmail or any other social networking platform. Repliers also have a variety of ways to pierce the forms including mobile phones, laptops, tablets, computers,etc.

Reach & Scalability One of the topmost advantages of using online checks is the reach and scalability. You can shoot checks to thousands of people at the same time you take to shoot check to single person. Also you can shoot checks across the world and produce forms in different languages.

Inflexibility Online checks give further inflexibility in the design. in homemade system actors can skip question but then this isn't possible since every field is obligatory thus the form won't get submitted till each and every questions are tried.

Obscurity then admin also can not view that which feedback was submitted by which pupil. With this point pupil can give honest feedback without telling their identity.

Further Accurate Since it's computer generated report the computation error which generally comes in primer is reduced and hence furnishing you with more accurate reports.

Results As soon as pupil has completed the form, Admin can view and dissect the reports. Through an online feedback operation system, data can be accessible in formats like chance, graphs, pie maps, etc.

8. Experimental Results

The snapshots shows the proposed system pages which can be accessed and the information to be provoded by the particular user based on the access rights.
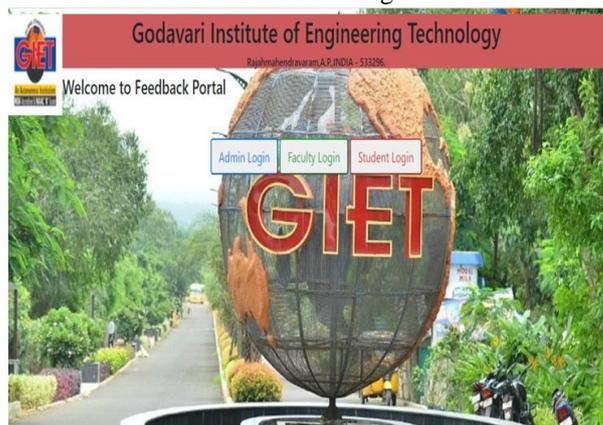
Fig.2 Shows the home page of the proposed system

Fig.3 Shows the rights an admin is having to access

Fig 6.Shows Course Registration
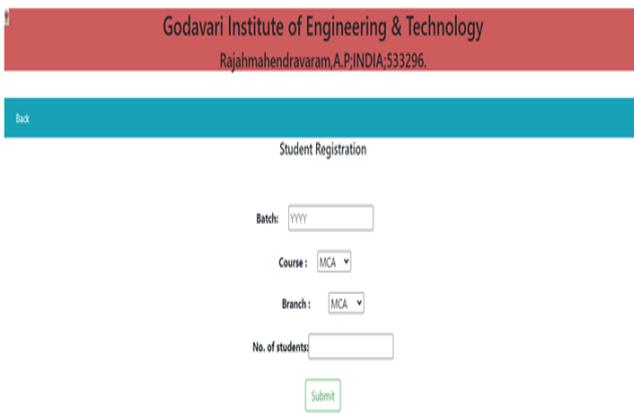
Fig 4.Shows Student Registration
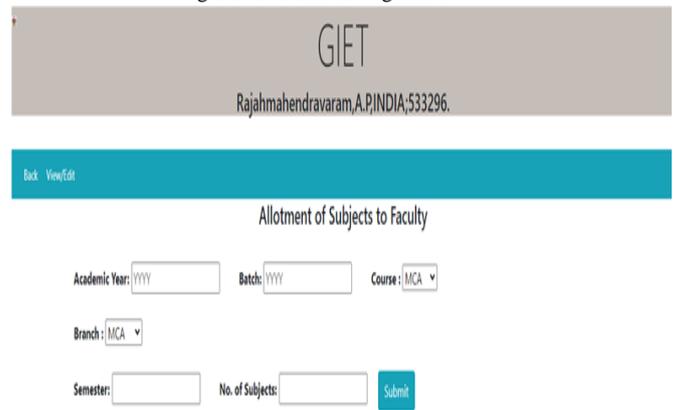
Fig 7. Assigning of subject to Faculty

Fig 5. Faculty Registration display
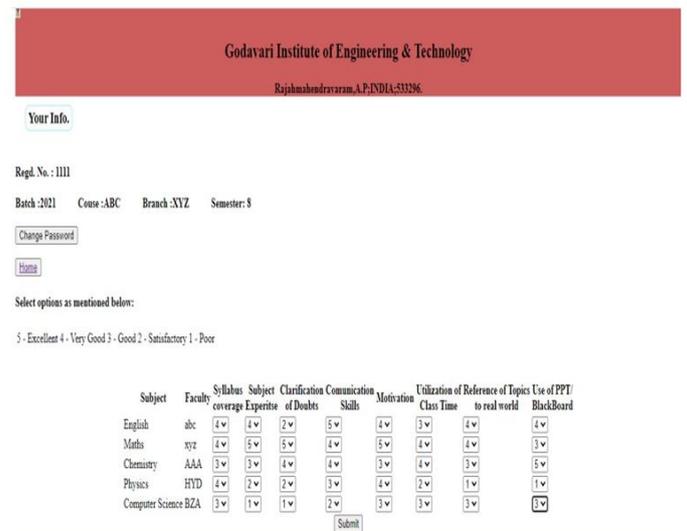
Fig.8 Students feedback entry page

JEET
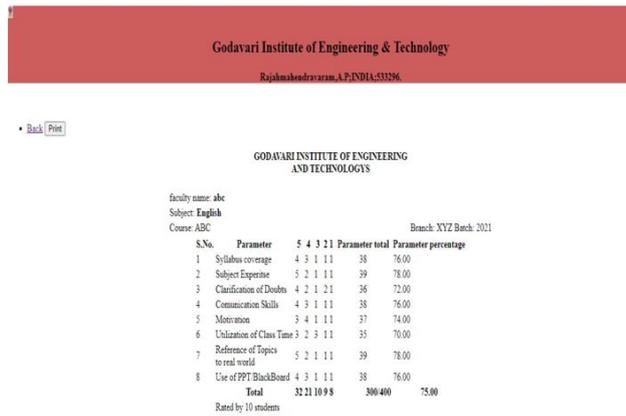
Figure 9.Sample feedback report

9. Discussions

The organization collects the feedback on class aspects and courses from diverse stakeholders similar as the scholars, alumni, Faculty and Employers. Institution recognized Academic Council in order to assure and dissect the academic merit at pupil and faculty situations. Periodical analysis is made by Academic Council from the following pupil concert, faculty performance in every semester, application of structure and conditions for quality improvement.In traditional system,educational institutes are taken feedbackthrough manual system , in this process all students are getting emerged and there is a possibility of some students givetheir feedback but at the end may be there is a chance of losing some papers and also we can't get the proper results and lot of time and the man power has been wasted by this manual feedback process. Online feedback system was developed by using php , bootstrap ,css and it works with the helpof xampp server [3]. In this project the developed web application contains login types for admin, faculty and students. The most effective web application for feedback is created to avoid difficulties and with a proper code for good working of application [4]. If admin misses any of the student or faculty information during creating feedback account then that student or faculty don't have access to login to the feedback forms [5] This web application feedback system gives alert or warning message when any one uses incorrect user id or password [6].

Table :1 Sample faculty performance evaluation sheet

S. No.	Faculty Name	Subject Name	Total Score	Total Percentage	Result
1	.Kiran Kumar	English	300	85.00	Excellent
2	.N.Pravallika	Maths	291	72.75	Very Good
3	S.Siva Prasad	Physics	286	71.50	Very Good
4	N.Sirnivas	Chemistry	273	68.25	Good

5	N.V.Pravallika	Computer Science	272	68.00	Good

Table: 2 Comparative study with other existing methods

Features	Shakeel et al.,2018 [28]	Rosni et al.,2017 [24]	A,B.Shinde et al.,2019 [1]	Rushikesh et at.,2019 [25]	Proposed System
Message	No	No	No	No	Yes
Login	Yes	Yes	Yes	Yes	Yes
Maintenance	Difficult	Easy	Difficult	Difficult	Easy
Cost	Moderate	High	Moderate	High	Low
Execution Time	3ms	3ms	2ms	2ms	1ms
Scalable	No	No	Yes	No	Yes

The terms defined as difficult means which is very hard to update the existing system,moderate defined as upgradation is possible to a certain extent where for each enhancement of the system charging will be done. Scalability of the system will be possible in the case of proposed system.The proposed system advantages are time consumption,easy to generate reports,assessment of faculty will be done immediately,flexible to take feedback by mentioning the time slot,a student may take the feedback even from home.Informations will be stored in single place.

10. Conclusion and Future Scope

In moment's world where learning has come a introductory essential for every child/ grown-up so to insure that appropriate learning is being delivered or not has been linked'by taking feedback' so as to ease the man power.The software has been designed in such a way that the pupil routinely takes the feedback turn by turn so as to not omit any of the member. The'Feedback System'Approaches each about educational and institutional practices, the pupil's enterprises about the knowledge they're being given. The data is anatomized and their suggestions are considered and put forth before the Academic Inspection Committee for discussion and the faculty members will be called for further imrpovements if necessary.Moreover, maintaining online feedback details is easily manageable for retrieving and future verfication about the faculty members while consideration for salary upgradation.

This system helps in generating the report based on the feedback received from the students.Soon after report generated from the system ,the head of the department able to see the report,by viewing the report he/she may call the faculty member to improve the area were they are week.Further enhancement may be done by taking everyday feedback from the studnets based on the topic

discussed as well as resource uploading for the courses the faculty members taught.

References

[1] B. Shinde , V. L. Karade , S. S. Sutar (2019). Android Based Student Feedback System for Improved Teaching Learning Vol.-7, Issue-2, E-ISSN: 2347-2693.

[2] Nguyen, W. Chen and M. Rauterberg (2012).Online feedback system for public speakers, 2012 IEEE Symposium on E-Learning, E-Management and E-Services, pp. 1-5, doi: 10.1109/IS3e.2012.6414963..

[3] Raghu Rama Krishnan (2014)Data Base Management System by (Tata MC-GRAW hill, 3rd edition).

[4] Divyansh Shrivastava, Shubham Kesarwani, Amol K. Kadam, Aarushi Chhibber, Naveenkumar, Jayakumar,(2017).Online Student Feedback Analysis System with Sentiment Analysis.International Journal of Innovative Research in Science Engineering and Technology, Vol. 6, Issue 5, pp. 8445 – 8451, 2017.

[5] G. Bhanukiran , K. N. V. Sree Vathsa , K. Venkata Ravi , B. Lakshmi Praveena, A. Kalavathi (2018) Student Feedback System ISSN: 2456-8880 Volume 1 Issue 10.

[6] G.Gautama R. Raithatha (2018).Knowledge Extraction for Semantic Web, Knowledge Extraction for Semantic Web, ISSN 2321-9939.

[7] Harita Khanna, SunandaPanigraha, Delsy Madeira, Sana Shaikh (2014).Semantic based Automated Feedback System, Under Graduate project report 2013–14, Don Bosco Institute of Technology

[8] Hwang,G. J (2003).A Conceptual Map Model for Developing Intelligent Tutoring Systems". International Journal of Computers and Education, 40, no. 3. 217-235.

[9] J. Hatie, H. Timperley(2007).The power of feedback", J. Review of Educational Research, 87(1), pp. 81-112.

[10] Jayakumar, D.T. and Naveenkumar, R.S.Djoshi.(2012).International Journal of Advanced Research in Computer Science and Software Engineering," Int. J, 2(9), pp.62-70.

[11] Jayakumar, N.(2014).Reducts and Discretization Concepts, tools for Predicting Student's Performance. Int. J. Eng. Sci. Innov. Technol, 3(2), pp.7-15.

[12] Jayakumar, N., Bhardwaj, T., Pant, K., Joshi, S.D. and Patil, S.H.(2015).A Holistic Approach for Performance Analysis of Embedded Storage Array. Int. J. Sci. Technol. Eng, 1(12), pp.247-250.

[13] Jayakumar, N., Singh, S., Patil, S.H. and Joshi, S.D.(2015). Evaluation Parameters of Infrastructure Resources Required for Integrating Parallel Computing Algorithm and Distributed File System. IJSTE-Int. J. Sci. Technol. Eng, 1(12), pp.251-254.

[14] M. Tarare, M.Manwani, A. Paidlewar, S. Maturkar, P.Chaudhari, J. V. Shiral (2014). Feedback Management System for Evaluating And Generating Monthly Report", International Journal of Emerging Technology and Advanced Engineering, Volume 4, Issue 3.

[15] Naveenkumar, J. and Joshi, S.D.(2015). Evaluation of Active Storage System Realized Through Hadoop. Int. J. Comput. Sci. Mob. Comput, 4(12), pp.67-73.

[16] Naveenkumar, J.(2017).Keyword Extraction through Applying Rules of Association and Threshold Values. International Journal of Advanced Research In Computer and Communication Engineering (IJARCCE), ISSN, pp.2278-1021.

[17] Naveenkumar, J., Makwana, R., Joshi, S.D. and Thakore, D.M.(2015).Offloading Compression and Decompression Logic Closer to Video Files Using Remote Procedure Call. Journal Impact Factor, 6(3), pp.37-45

[18] Nikhil H.M, Varada Sunitkumar, Shruti S Basapur, R. Vinil Shah, Dr. Veeragangadhar Swamy T M(2018).

[19] Design and Implementation of Student Feedback System at Education System ISSN (Online) 2394-2320 Vol 5, Issue 4.

[20] P. Chavan and R. Mitra (2019)Developing a Student Feedback System using a Design- Based Research Approach,IEEE Tenth International Conference on Technology for Education (T4E), 2019, pp. 1-8, doi: 10.1109/T4E.2019.00-59.

[21] Phani Rama Prasad, Chella Sailatha, Gangapratima V,Harika D, Harika V(2017).College Student Feedback System", International Journal For Technological Research In Engineering, Volume 4, Issue 9, pp. 1686 – 1688.

[22] Rajvee Patel, Omkar Agrawal, Yash Gangani , Ashish(2018) Vishwakarma College Feedback System e-ISSN: 2395-0056 p-ISSN: 2395-0072 Volume: 05 Issue: 01

[23] Raval, K.S., Suryawanshi, R.S., Naveenkumar, J. and Thakore, D.M.(2011).The Anatomy of a Small- Scale Document Search Engine Tool: Incorporating a new Ranking Algorithm. International Journal of Engineering Science and Technology, 3(7).

[24] Rosni Abu Kassim, Juliana Johari, Muhammad Izzat Rahim, Norlida Buniyamin(2017).Lecturers' perspective of student online feedback system: A case study, Engineering Education (ICEED) IEEE 9th International Conference on, pp. 163-168, 2017.

[25] Rushikesh R. Kamble, Vedant V. Patil, Prathamesh R.Bhujange, Pratiksha M. Kolawale, Naresh A. Kamble(2019).Student Feedback System e-ISSN: 2395-0056 p-ISSN: 2395-0072 Volume: 06 Issue: 2.

[26] Salunkhe, R., Kadam, A.D., Jayakumar, N. and Joshi, S.(2016).Luster a scalable architecture file system: A research implementation on active storage array framework with Luster file system. In Electrical,

Electronics, and Optimization Techniques (ICEEOT), International Conference on (pp. 1073- 1081). IEEE.

[27] Salunkhe, R., Kadam, A.D., Jayakumar, N. and Thakore, D. (2016) In search of a scalable file system state-of- the-art file systems review and map view of new Scalable File system. In Electrical, Electronics, and Optimization Techniques (ICEEOT), International Conference on (pp. 364-371). IEEE.

[28] Shakeel Ahmad Dar (2018).Faculty Feedback Management System Volume 5, Issue 01, January - 2018 e-ISSN (O): 2348-4470 p-ISSN (P): 2348-6406

[29] Sivasankari S, Srimathi. P. S., Ramya S, Dr. G. Fathima,(2016).Online Feedback System for Educational Institutions for Better Evaluation of Faculty's Performance Using Semantic Web (SW) Technology", International Journal of Innovative Research in Science, Engineering and Technology, Volume 5, Special Issue 2, pp. 275 – 279.

[30] Software Engineering by Roger S. Pressman (Tata MC-GRAW hill, 5th edition).

[31] Zaeimfar, S.N.J.F.(2014).Workload Characteristics Impacts on file System Benchmarking. Int. J. Adv, pp.39-44.