

THE GANDHIGRAM RURAL INSTITUTE (DEEMED TO BE UNIVERSITY)

காந்திகிராம கிராமிய நிகர்நிலைப் பல்கலைக்கழகம் गांधीग्राम ग्रामीण संस्थान (मानित विश्वविद्यालय)

ஃரோமம் உயர நசடு உயகும் Ministry of Education (Shiksha Mantralaya), Government of India. Accredited by NAAC with 'A' Grade (3rd Cycle)

Report on

DIGITAL AUDIT



Table of Contents

| S.No. | Particulars | Page No. |
|-------|---|----------|
| 1 | Introduction | 1 |
| 2 | Objectives of Digital Audit | 1 |
| 3 | Digital Infrastructure of the Institute | 2 |
| 4 | Supporting Software Facilities | 16 |
| 5 | Analysis of Satisfactory Survey from the Stakeholders | 45 |
| 6 | Action Taken Report | 56 |
| 7 | Conclusion | 57 |

1. INTRODUCTION

A digital audit in higher education is a comprehensive evaluation of an institute's digital assets and performance to help identify areas for improvement. In the digital landscape, higher education institutions rely heavily on their IT infrastructure to support Teaching-Learning process, administrative functions, academic research and the overall student experience. As technology becomes more integral to the higher educational institutions, ensuring the reliability, security, and efficiency of IT systems is paramount.

ICT tools and infrastructure create interactive teaching-learning environment that helps both the teachers and students to engage themselves in activities leading to conducive atmosphere. The performance of the students can be effectively gauged using the digital tools and techniques. A 24x7 Internet connectivity enables the students to access online resources effectively.

One of the most effective ways to achieve the above is by conducting regular digital audits and assessments. This report brings out the objectives, facilities and the analysis of the impact made by the existing IT infrastructure on the stakeholders of The Gandhigram Rural Institute (Deemed to be University), Gandhigram.

2. OBJECTIVES OF DIGITAL AUDIT

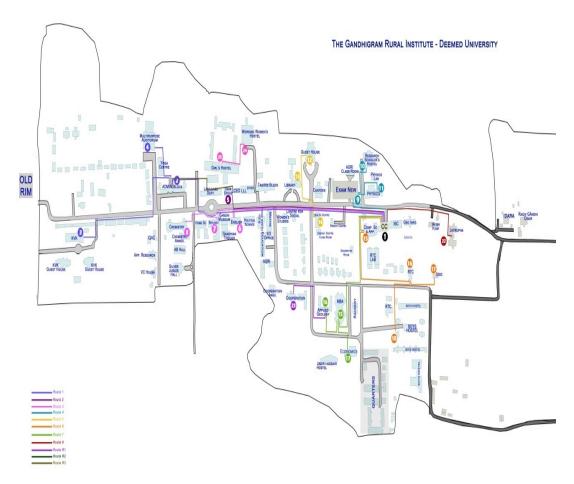
The following are the objectives of the digital audit:

- To enhance Teaching-Learning process
- To improve students' assessment
- To assess the availability of online resources for research
- To analyse the existing administrative tools and their satisfactory level
- To evaluate the existing ICT infrastructure of the institute and suggest improvement
- To monitor the existing Surveillance system in the campus

3. DIGITAL INFRASTRUCTURE IN THE INSTITUTE

3.1 Internet facilities

National Knowledge Network (NKN) through BSNL provides 1G tunnel from Dindigul from 2015 onwards to our Institute. The Campus LAN connects more than 800 nodes in all the departments and sections by means of 3 Kilo meters of Optical Fibre Cable (OFC) and UTP cables. SOPHOS firewall is maintained by the Computer Centre to protect the network from unauthorized access and malicious traffic by monitoring and filtering the network traffic. All the internet users (staff and students) are provided with individual username and password for accessing the network through firewall. An exclusive Internet Browsing Centre (IBC) with 30 nodes is available for the use of students and staff members. The average network speed we are receiving is 400 Mbps. As a backup for load balancing, we got a second connectivity (Gold 1:1 – 100 Mbps) from Railtel Corporation of India Limited from October 2020 onwards. The following is the Campus LAN diagram of our campus.



3.2 WiFi facilities

With the available wired connectivity, Wi-Fi devices are also installed in our campus. 89 midrange indoor and outdoor Wi-Fi devices and 2 RF connectivity devices are available. The same credentials for wired connectivity can be used in Wi-Fi connectivity also.

3.3 Available ICT facilities/infrastructure in the Campus

A total number of 61 classrooms/ seminar halls/ laboratories/ libraries/ Video Conference Halls are equipped with LCD projectors, speakers, digital cameras, smart screens and other utility devices to facilitates ICT enabled teaching-learning process. These classes are fully furnished with electrical equipment to support the Digital Infrastructure.

| S.No. | Available ICT facilities in the Campus | Nos. |
|-------|--|------|
| 1. | Classrooms with ICT | 38 |
| 2. | Seminar halls with ICT | 11 |
| 3. | Laboratories with ICT | 6 |
| 4. | Libraries with ICT | 4 |
| 5. | Video Conference Hall | 2 |
| | Total | 61 |
| 6. | Number of working Computers | 1043 |
| 7. | No. of working laptops | 118 |

| Sl. No. | Server | Configuration |
|---------|----------------|--|
| 1 | GRIIMS | Sl. No.:SGH517XV2E |
| | (GRIData) | HP Proliant DL60 Gen9, CPU-E5-2603 V3 @ 1.60GHz, |
| | | 8GB RAM |
| 2 | VMS Server | Sl. No.:SGH452Y12R |
| | | HP Proliant DL60 Gen9, CPU-E5-2603 V3 @ 1.60GHz, |
| | | 8GB RAM |
| 3 | NAS | Sl.No.: Q14CI05379, QNAP-TVS-1271V-RP |
| 4 | BSNL Server | HCL Core i3, 4GB RAM |
| 5 | MCA Lab Server | Sl.No.: 4083A1405422, HCL Intel Xeon Server |
| 6 | MCA Lab Server | Sl.No.: 2083A1305506 |
| | | HCL Intel Xeon Server |
| 7 | MCA Lab Server | Sl.No.: 2086A4127144 |
| | | HCL Core2 Duo, 1GB RAM |



















































































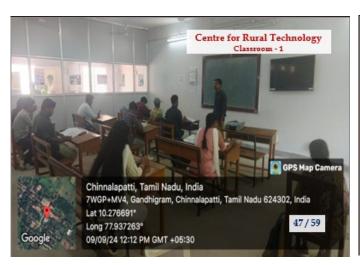






























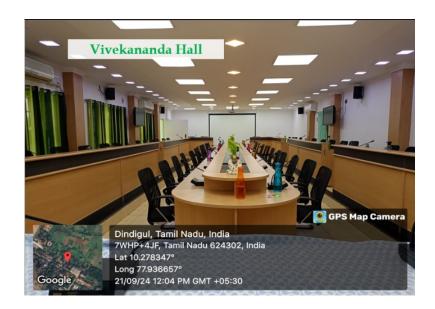






Video conference Hall





Video Conference hall in DCSA



3.4 Campus Surveillance

Computer centre maintains a surveillance network of 101 CCTV Cameras and one Automatic Number Plate Recognizing Camera. The storage devices are available in the server room with a backup of 15 days.







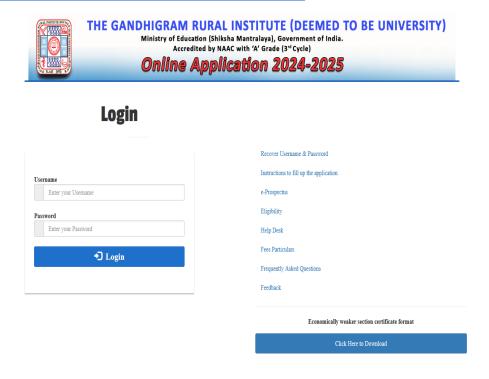
4. SUPPORTING SOFTWARE FACILITIES

All our software requirements are developed and maintained by the Computer Centre using Open Source Software only.

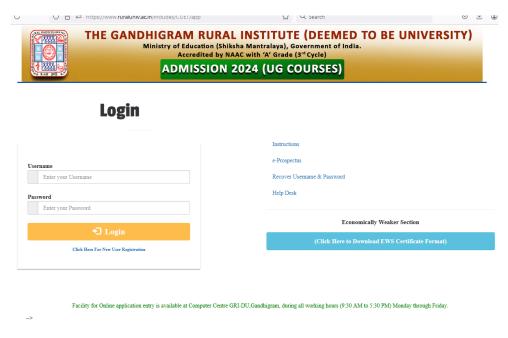
Software for Students

1. Online Application Portal

Link 1: https://www.ruraluniv.ac.in/includes/griims1/app - Non CUET



Link 2: https://www.ruraluniv.ac.in/includes/CUET/app - CUET



2. Online Application Helpdesk Services

Link 1: https://www.ruraluniv.ac.in/includes/griims1/ByCash



Designed, Developed and Maintained by Computer Centre, GRI-DTBU

Link 2: https://www.ruraluniv.ac.in/includes/CUET/ByCash



Davimad Davidonad and Maintainad by Committee Central CPT DTRI

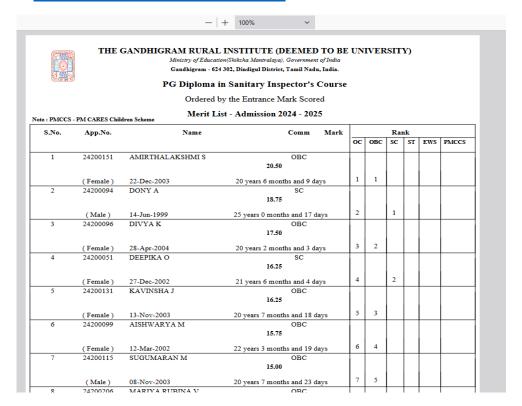
3. Admission Counseling

Link: http://gridata/boot/student/regular stu adm



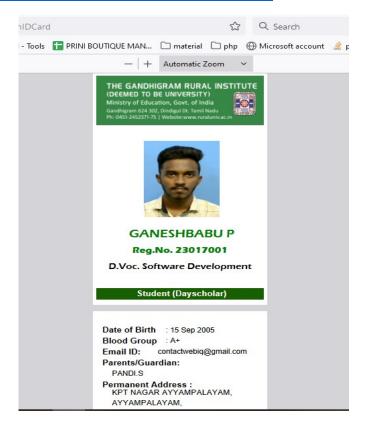
4. Admission Merit List (Preparation and Dissemination)

Link: http://gridata/boot/student/checklist



5. Printing of ID Cards

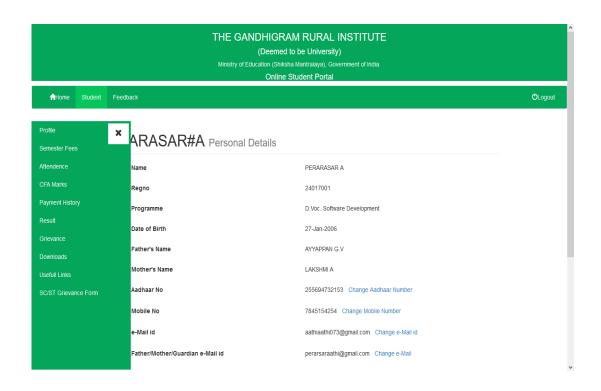
Link: http://gridata/boot/student/SubmitPrinIDCard



6. Student Portal – Personal Data, Fee Payment, Declaration of Results and Attendance

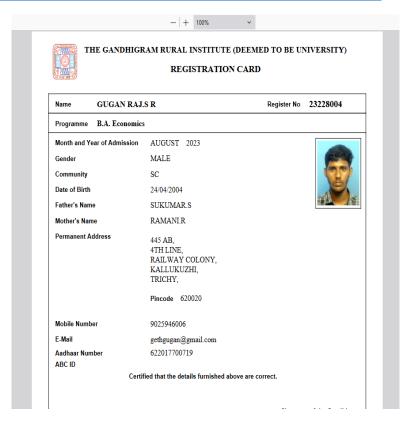
Link: http://www.portal.ruraluniv.ac.in/





7. Registration Cards

Link: http://gridata/boot/examsection/generate reg card course



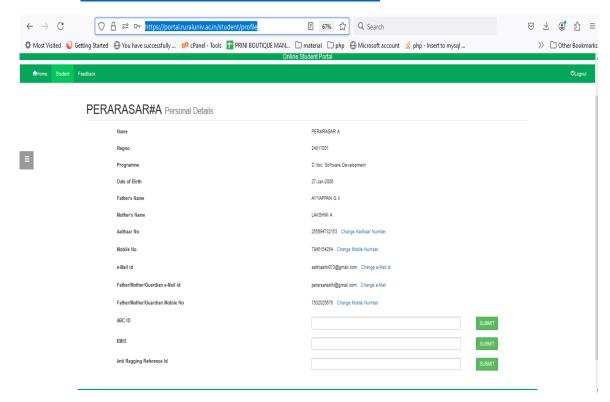
8. Learning Management System (LMS)

Link: https://portal.ruraluniv.ac.in/lms/



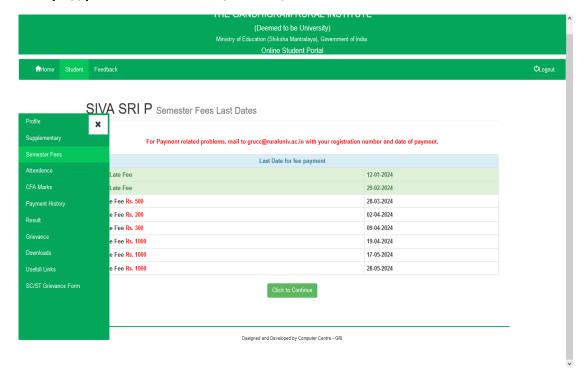
9. Academic Bank of Credits (ABC) - User Creation

Link: https://portal.ruraluniv.ac.in/student/profile



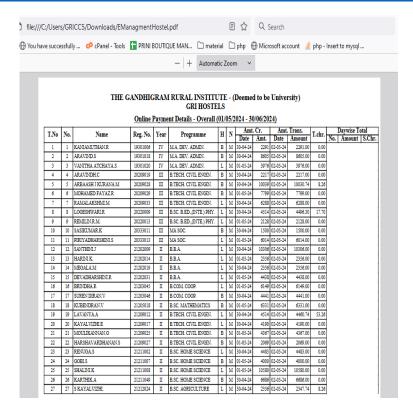
10. Semester Fee Management

https://portal.ruraluniv.ac.in/student/SemFee



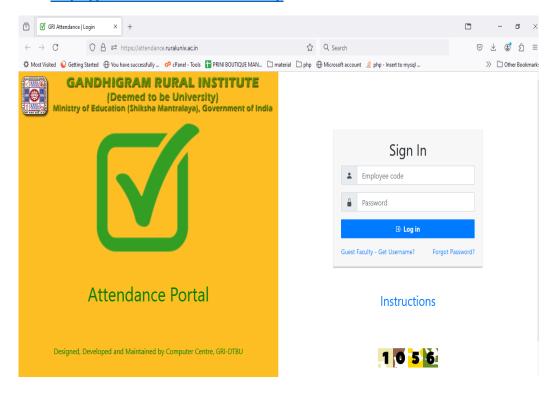
11. Hostel e-Payment Management

Link: https://www.ruraluniv.ac.in/grihostel/Print report/Fees tally report/7



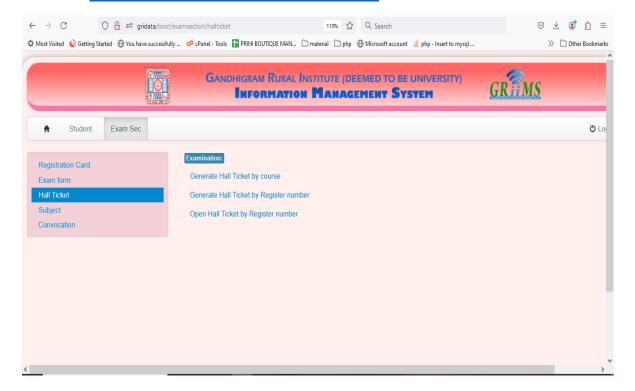
12. Online Attendance Management

Link: https://attendance.ruraluniv.ac.in/



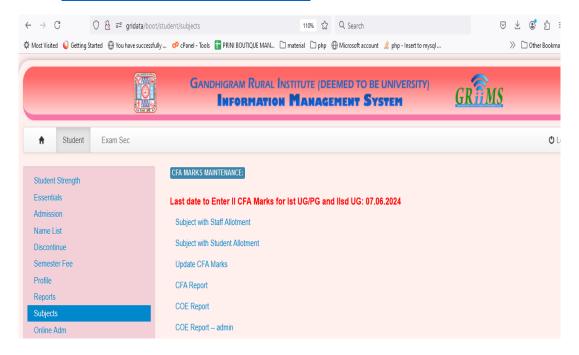
13. Printing of Hall Tickets

Link: http://gridata/boot/examsection/hallticket



14. CFA / ESE Marks Processing

Link: http://gridata/boot/student/subjects



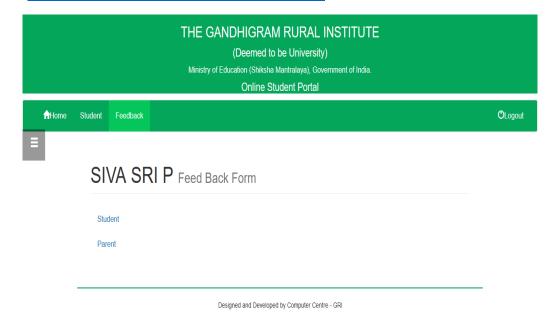
15. Processing of Results

Link: https://portal.ruraluniv.ac.in/student/Result



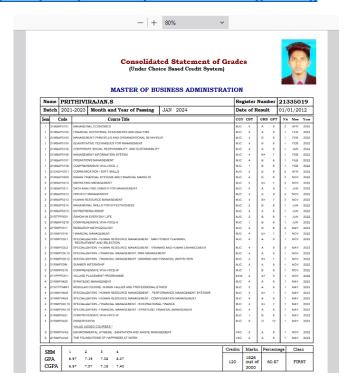
16. Student-Feedback Processing

Link: https://portal.ruraluniv.ac.in/feedback/Feed



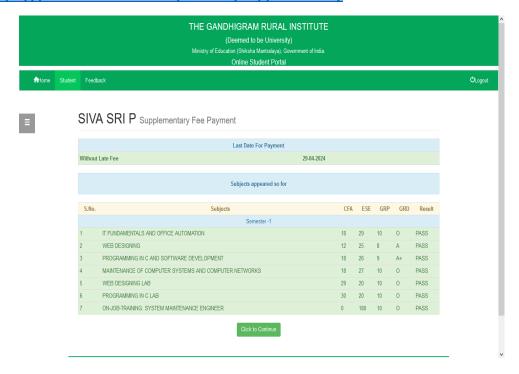
17. Processing of Consolidated Marks Statements

Link: http://grixam/boot/examdoc/consol stat of grade ug



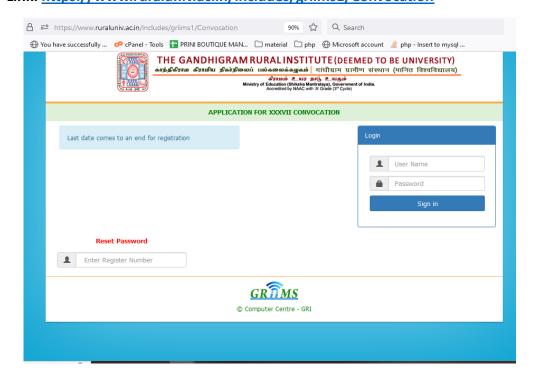
18. Supplementary Fee Management

Link: https://portal.ruraluniv.ac.in/student/Supplementary



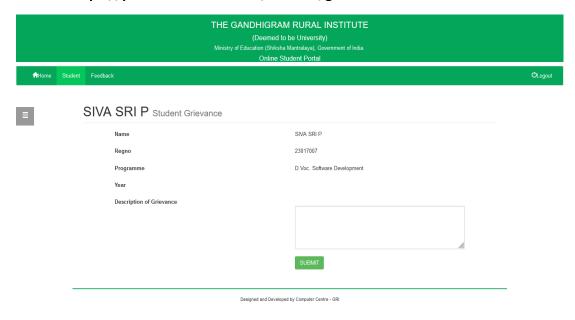
19. Convocation Management

Link: https://www.ruraluniv.ac.in/includes/griims1/Convocation

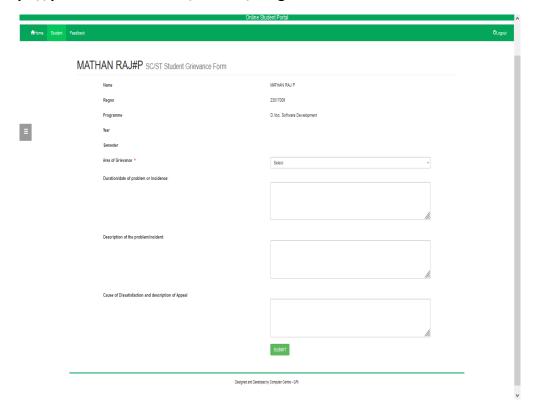


20. Online Grievance redressal

Link1: https://portal.ruraluniv.ac.in/student/grievance

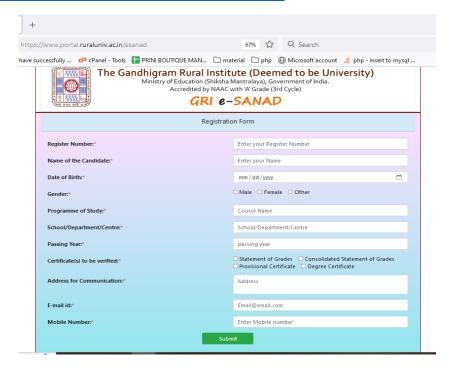


Link2:https://portal.ruraluniv.ac.in/student/scstgrievance



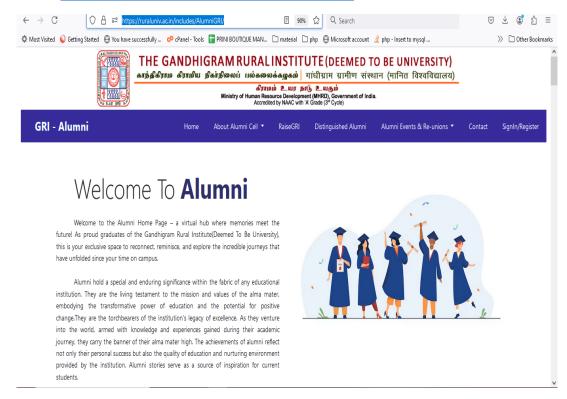
21. E-Sanad

Link: https://www.portal.ruraluniv.ac.in/esanad



22. Alumni Portal Management

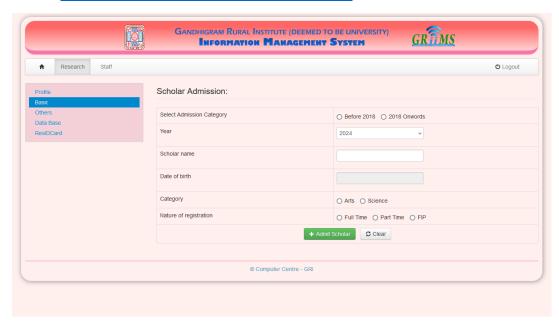
Link: https://ruraluniv.ac.in/includes/AlumniGRI/



Software for Research Scholars

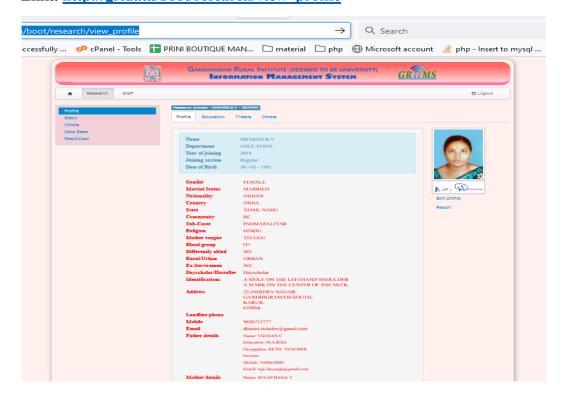
1. Ph.D. Admission Portal

Link: http://gridata/boot/research/admit scholar



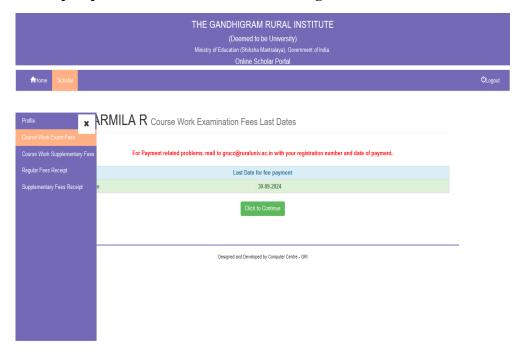
2. Research Scholar Portal (Personal Data, Research Fee Payment and Progress Report uploading)

Link: http://gridata/boot/research/view profile



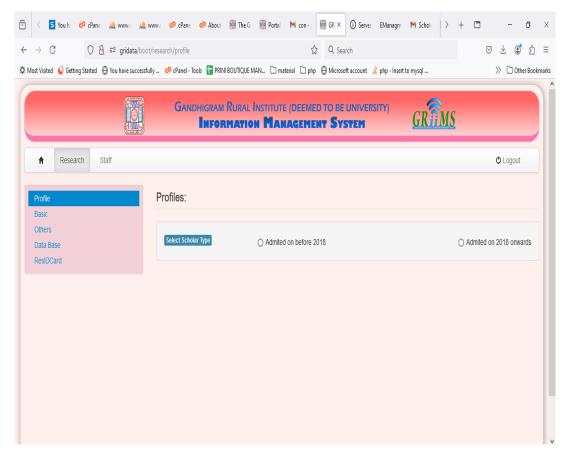
3. Online Research Fee Payment

Link: https://portal.ruraluniv.ac.in/scholar/Regularfees



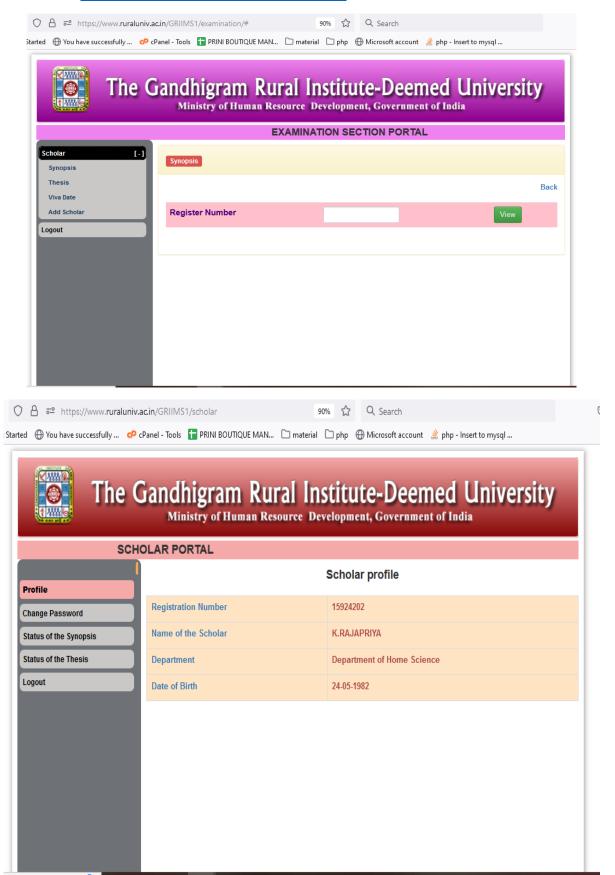
4. Research Scholar Database Management

Link: http://gridata/boot/research/profile



5. Ph.D. Thesis Status Tracking

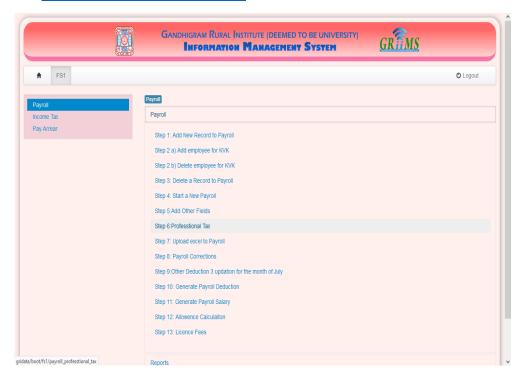
Link: https://www.ruraluniv.ac.in/GRIIMS1/



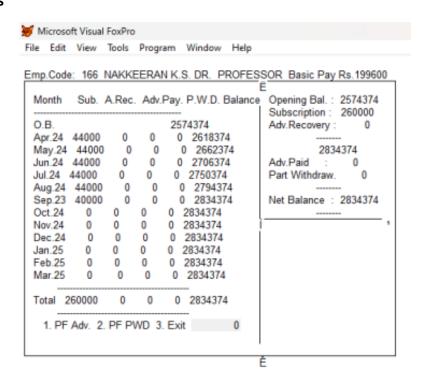
Software for Employees

1. Salary Processing for the Permanent/Temporary/Outsourcing Employees

Link: http://gridata/boot/fs1/payroll

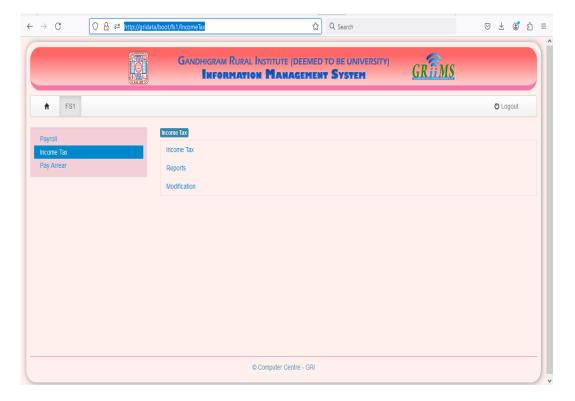


2. GPF Process



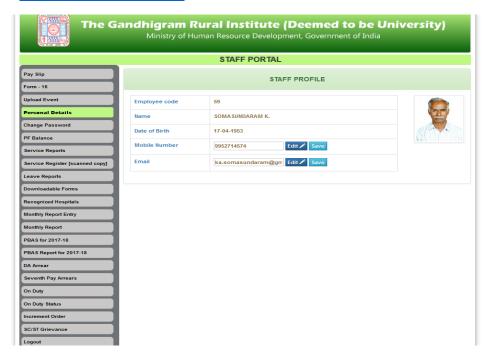
3. Income Tax Assessment and Management

Link: http://gridata/boot/fs1/IncomeTax



4. Staff Portal Management (Salary Slip, Leave Details, PF Balance, etc)

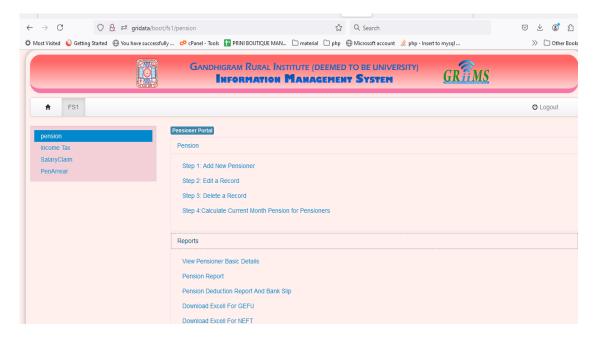
Link: http://gridata/staff/staff



Software for Pensioners

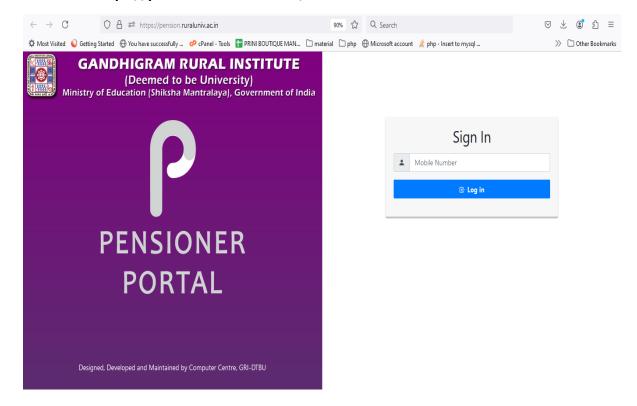
1. Pension Processing

Link: http://gridata/boot/fs1/pension



2. Pensioner Portal Management (Pension, Circular, Life Certificate, Yearly IT Statement)

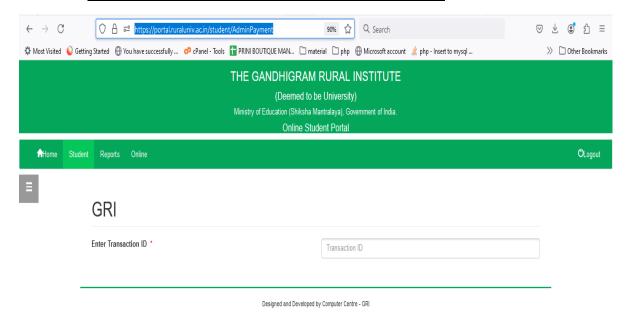
Link: https://pension.ruraluniv.ac.in/



Software for Administration

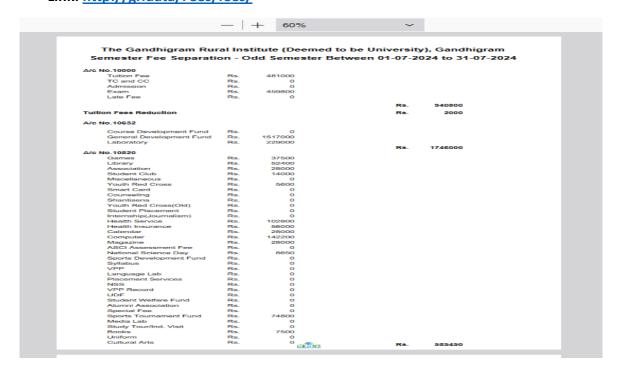
1. Digital Payment Management and Resolving Issues

Link: https://portal.ruraluniv.ac.in/student/AdminPayment



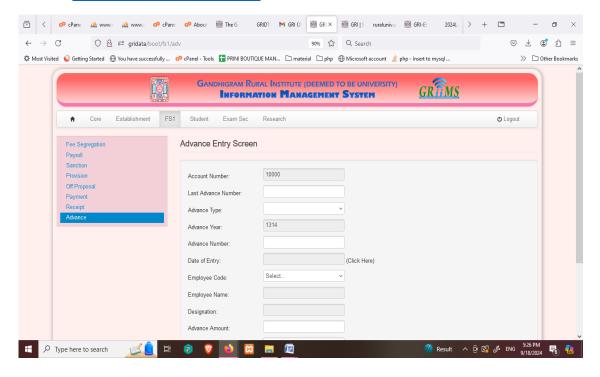
2. Account Segregation of Digital Payment

Link: http://gridata/Fees/fees/



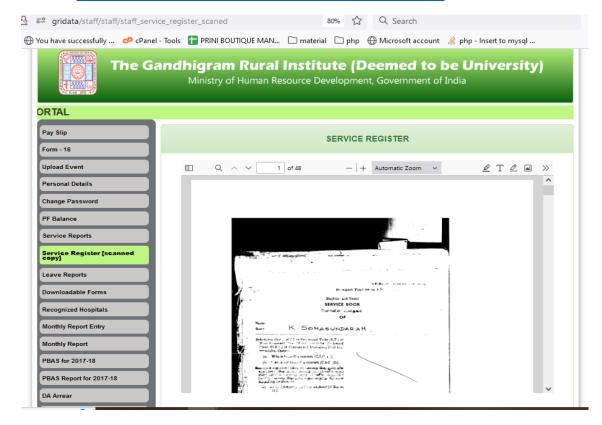
3. Advance Management

Link: http://gridata/boot/fs1/adv



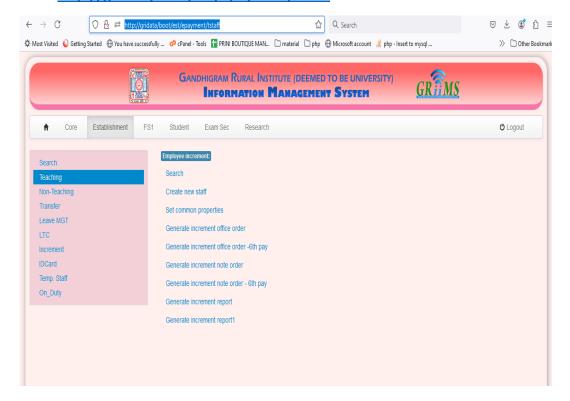
4. SR Book Records Management

Link: http://gridata/staff/staff/staff service register scaned



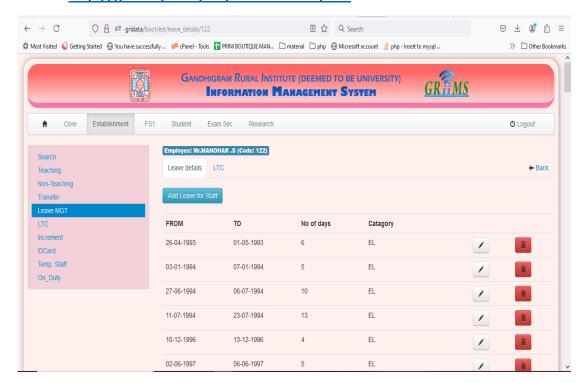
5. Permanent Staff Yearly Increment Processing

Link: http://gridata/boot/est/epayment/tstaff



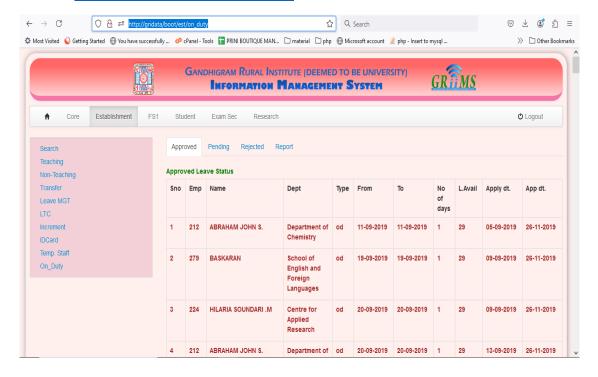
6. Permanent Staff Leave Management

Link: http://gridata/boot/est/leave details/122



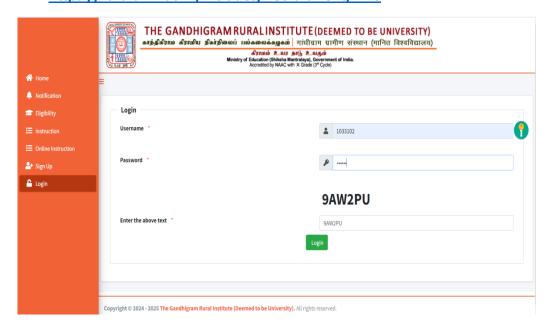
7. On-Duty Permission Management

Link: http://gridata/boot/est/on_duty



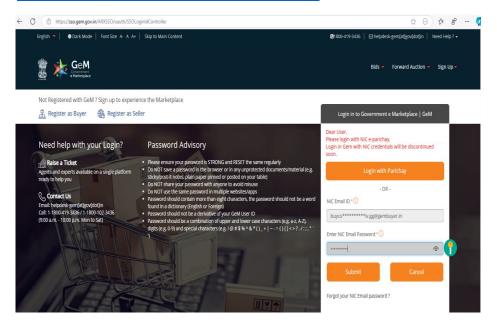
8. Permanent Staff Recruitment Portal

Link: https://ruraluniv.ac.in/includes/Recruitment/Hire



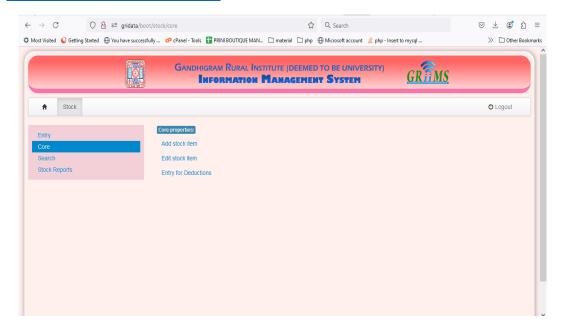
9. Purchase through GeM Portal Management

Link: Login in to Government e Marketplace | GeM



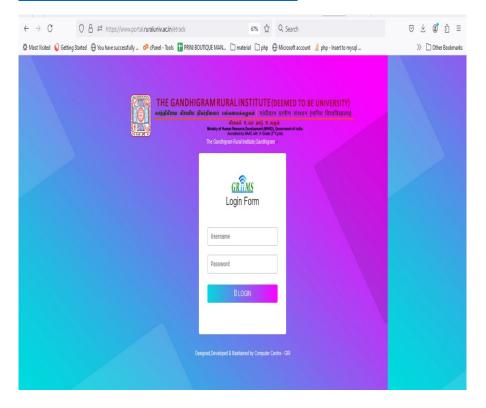
10. Asset Management

Link: http://gridata/boot/stock/entry



11. e-Office Implementation

Link: https://www.portal.ruraluniv.ac.in/etrack



Feedback

1. ALUMINI'S FEEDBACK ON CURRICULUM



2. EMPLOYER'S FEEDBACK ON CURRICULUM

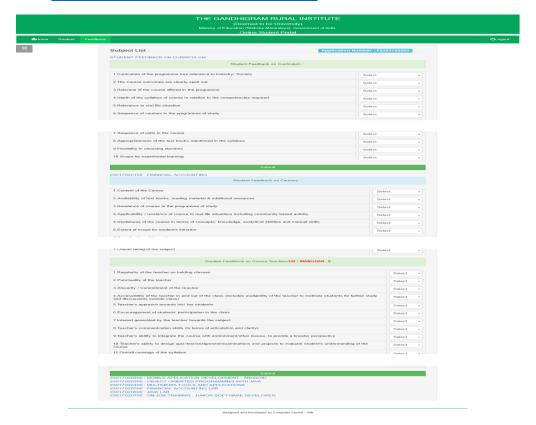


3. TEACHER'S FEEDBACK ON CURRICULUM



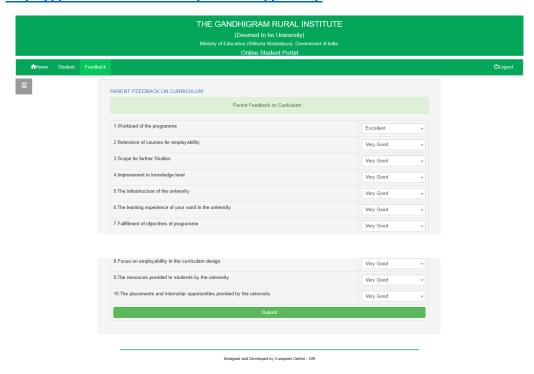
4. Student Feedback

Link: https://portal.ruraluniv.ac.in/feedback/

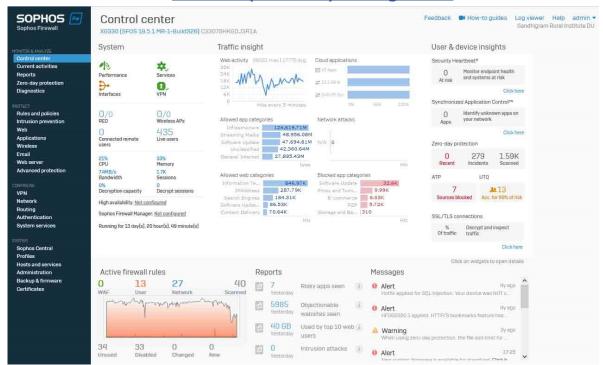


5. Parent Feedback

Link: https://portal.ruraluniv.ac.in/feedback/parent/



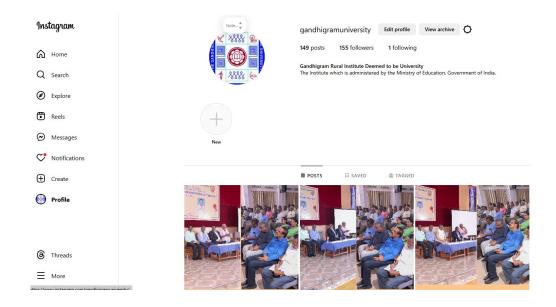
Firewall (SOPHOS) Management



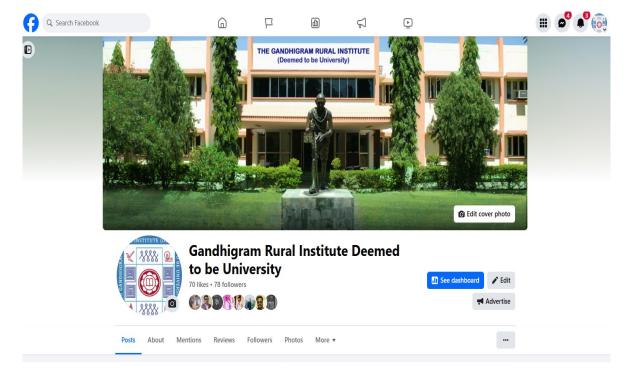
Software for Communication Management

Institute Social Media Accounts Management

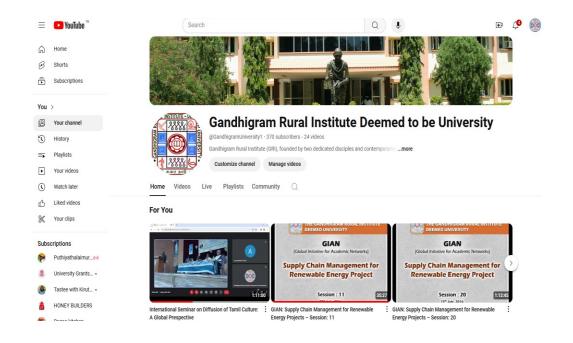
Instagram Account Link: https://www.instagram.com/gandhigramuniversity/



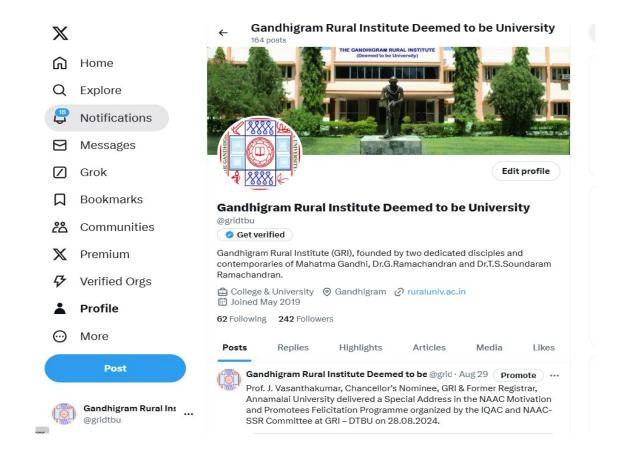
Face book Account Link: https://www.facebook.com/profile.php?id=61553964151782



YouTube Account Link: www.youtube.com/@GandhigramUniversity1



Twitter Account Link: https://twitter.com/gridtbu



5. ANALYSIS OF SATISFACTORY SURVEY FROM THE STAKEHOLDERS

A satisfactory survey from the stakeholders was conducted among the permanent teaching/non-teaching staff, research scholars, students and parents through Google Forms. Appropriate questioners were developed to elicit the data to assess the satisfactory index of the above stakeholders and the results were analyzed and are presented in the form of bar and pie charts.

5.1 Survey from the Students

For the permanent teaching staff, questions were designed to ensure the internet facility provided, functionality of the student's portal, working efficiency of online fee payment system, the awareness of the list of courses offered under

VAC, Skill-based Electives and Generic Electives, promptness levels of e-circulars and notification, enrolment on inline courses, ICT facilities in the department and availability of e-resources as shown in Table.1. 1924 number of students responded. The collective response is depicted in Figure 1 and the response to the individual questions varied from person to person, where the overall response is given in Figure 2.

Table 1. Survey Questionaries for Students

| Q.No. | Questions | Options | Response in % |
|-------|---|-----------|---------------|
| | | Excellent | 65.26 |
| _ | How do you rate the | Very Good | 17.1 |
| 1 | internet facility of the | Good | 13.74 |
| | institute? | Fair | 3.9 |
| | Harry do many mate tha | Excellent | 71.86 |
| 2 | How do you rate the functionality of the | Very Good | 16.99 |
| | student portal? | Good | 9.74 |
| | student portar | Fair | 1.41 |
| | Is the provision for online | Excellent | 67.53 |
| 3 | Is the provision for online fees payment working | Very Good | 19.81 |
| 3 | efficiently? | Good | 10.5 |
| | efficiency: | Fair | 2.16 |
| | How do you rate the awareness of the list of courses offered under VAC, Skill-based Electives and Generic Electives through the university website? | Excellent | 68.51 |
| | | Very Good | 19.37 |
| 4 | | Good | 10.06 |
| | | Fair | 2.06 |
| | How do you rate the | Excellent | 69.05 |
| | notifications related to exams and other | Very Good | 18.61 |
| 5 | | Good | 10.28 |
| | | Fair | 2.06 |
| | How do you rote the | Excellent | 68.18 |
| | How do you rate the promptness of e-circulars from the department? | Very Good | 19.05 |
| 6 | | Good | 11.04 |
| 0 | nom the department: | Fair | 1.73 |

| | How are the examination | Excellent | 69.16 |
|----|--|-----------|-------|
| | related notifications | Very Good | 18.61 |
| 7 | useful provided by the | Good | 11.04 |
| • | student portal? | Fair | 1.19 |
| | How do you rate the | Excellent | 67.53 |
| | motivation given by the department for the enrolment in MOOC/SWAYAM courses? | Very Good | 18.61 |
| 8 | | Good | 10.93 |
| | | Fair | 2.92 |
| | How do you rate the ICT | Excellent | 67.1 |
| 9 | How do you rate the ICT facilities in your | Very Good | 19.59 |
| | department? | Good | 10.82 |
| | department: | Fair | 2.49 |
| | How do you find the information content | Excellent | 70.78 |
| 10 | provided by your course | Very Good | 17.32 |
| | teacher in the form of e- | Good | 9.85 |
| | resources? | Fair | 2.06 |

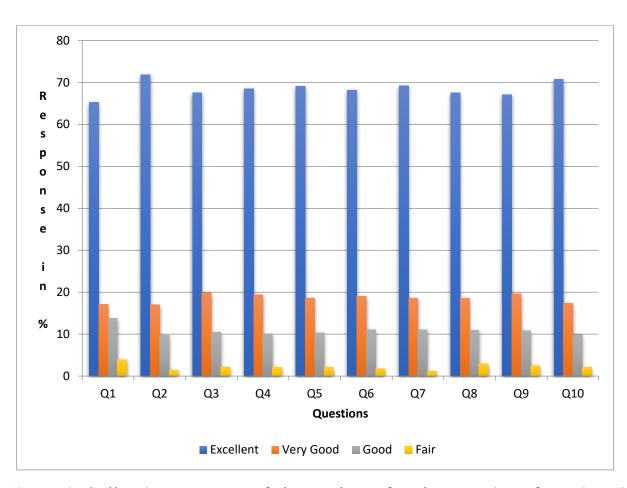


Figure 1. Collective response of the students for the questions from 1 to 10

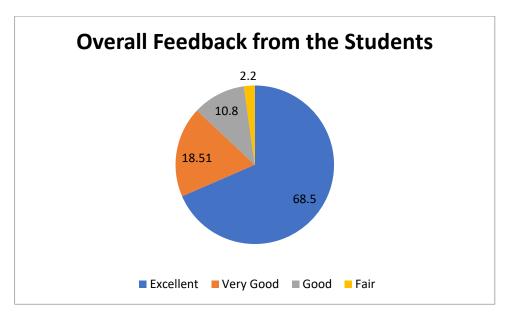


Figure 2. Overall feedback from the students

5.2 Survey from Teaching Staff

For the permanent teaching staff, questions were designed to ensure the computing facility provided, login credential for internet connectivity, receipt of e-circulars, facilities for e-content development and access to service record and increment orders as shown in Table.2. 78 number of faculty members responded. The collective response is depicted in Figures 3, the response to the individual questions varied from person to person, where the overall response is given in Figure 4.

Table 2. Survey Questionaries for Teaching Staff (Permanent)

| Q.No. | Questions | Options | Response in % |
|-------|--|-----------|---------------|
| | How do you rate the computing facilities in your department? | Excellent | 58.33 |
| 1 | | Very Good | 16.67 |
| _ | | Good | 8.33 |
| | | Fair | 14.58 |
| | | | 54.17 |
| 2 | How do you rate the internet facility in GRI? | Very Good | 29.17 |
| _ | | Good | 4.17 |
| | | Fair | 10.42 |

| | How do you rate the | Excellent | 70.83 |
|---|---|-----------|-------|
| 3 | quality of individual login credentials provided by | Very Good | 18.75 |
| | the institute for accessing internet? | Good | 8.33 |
| | | Fair | 0 |
| | How do you rate the | Excellent | 70.83 |
| | promptness of e-circulars and notifications issued | Very Good | 22.92 |
| 4 | by the institute/department? | Good | 2.08 |
| | montate/ department. | Fair | 2.08 |
| | How do you rate the media | Excellent | 43.75 |
| 5 | centre facility for e- content development in | Very Good | 35.42 |
| | GRI? | Good | 12.5 |
| | | Fair | 6.25 |
| | How do you rate the | Excellent | 68.75 |
| = | provision given to access your Service | Very Good | 18.75 |
| | , , | Good | 10.42 |
| | ± ' | Fair | 0 |

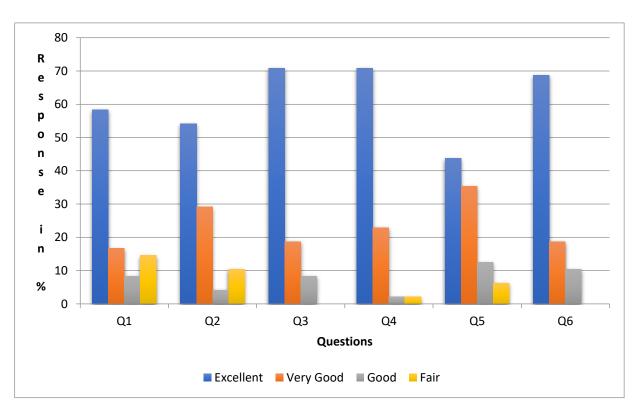


Figure 3. Collective response of the Teaching Staff (Permanent) for the questions from 1 to 6

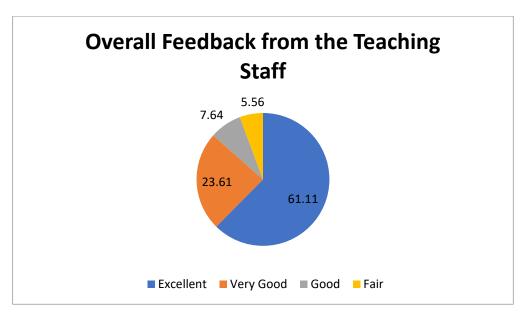


Figure 4. Overall feedback from the Teaching Staff

5.3 Survey for Non-Teaching Staff (Permanent)

For the permanent Non-teaching staff, questions were designed to ensure the computing facility provided, login credential for internet connectivity, receipt of e-circulars, Software used for office automation and access to service record and increment orders through Staff portal as shown in Table.3. 55 number of Non-Teaching staff responded. The collective response is depicted in Figures 5, the response to the individual questions varied from person to person, where the overall response is given in Figure 6.

Table 3. Survey Questionaries for Non-Teaching Staff (Permanent)

| Q.No. | Questions | Options | Response in % |
|-------|--|-----------|---------------|
| | How do you rate the | Excellent | 76 |
| 1 | computing facilities | Very Good | 4 |
| _ | provided in GRI? | Good | 16 |
| | | Fair | 4 |
| | How do you rate the quality of the internet connection in GRI? | Excellent | 76 |
| 2 | | Very Good | 4 |
| | | Good | 12 |
| | | Fair | 8 |

| | How do you rate the promptness of the e-circulars and | Excellent | 64 |
|-----------------|---|-----------|----|
| 3 | | Very Good | 12 |
| | notifications in the institute website? | Good | 24 |
| | | Fair | 0 |
| | How do you rate the | Excellent | 44 |
| software | software used for office | Very Good | 24 |
| 7 | administration? | Good | 20 |
| | | Fair | 12 |
| | How do you rate the online provision given to | Excellent | 68 |
| access Record/S | access your Service | Very Good | 20 |
| | Record/Salary Slip in staff portal? | Good | 8 |
| | | Fair | 4 |

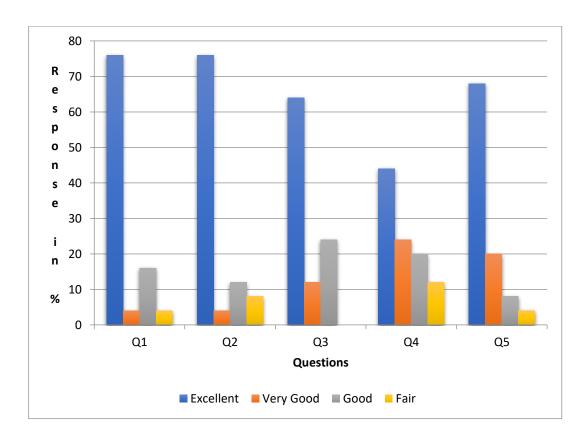


Figure 5. Collective response of the Non-Teaching Staff (Permanent) for the questions from 1 to 5

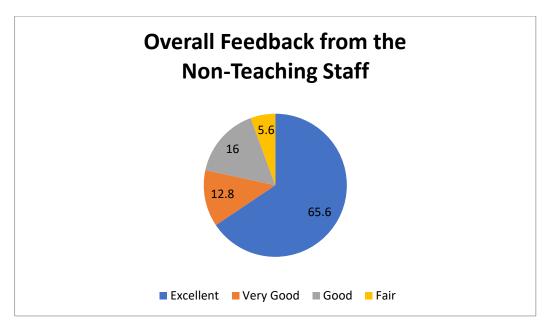


Figure 6. Overall feedback from the Non-Teaching Staff

5.4 Survey from Research Scholars

For the Research Scholars, questions were designed to ensure the computing facility provided, login credential for internet connectivity, receipt of e-circulars, online journals provided by the institute software and tools available for the research as shown in Table.4. 218 number of research scholars responded. The collective response is depicted in Figures 7, the response to the individual questions varied from person to person, where the overall response is given in Figure 8.

Table 4. Survey Questionaries for Research Scholars

| Q.No. | Questions | Options | Response in % |
|-------|--|-----------|---------------|
| | How do you rate the | Excellent | 42.5 |
| 1 | computing facilities | Very Good | 27.5 |
| _ | provided in GRI? | Good | 27.5 |
| | | Fair | 2.5 |
| | How do you rate the quality of the internet connection in GRI? | Excellent | 30 |
| 2 | | Very Good | 37.5 |
| _ | | Good | 22.5 |
| | | Fair | 10 |

| | How do you rate the promptness of the e- | Excellent | 65 |
|---|---|-----------|------|
| 3 | circulars and | Very Good | 20 |
| | notifications in the institute website? | Good | 15 |
| | motivate website. | Fair | 0 |
| | How do you find the e- | Excellent | 45 |
| | resources and online journals provided by the | Very Good | 30 |
| | institute useful for your research? | Good | 10 |
| 4 | research. | Fair | 15 |
| | How do you rate the | Excellent | 37.5 |
| 5 | access given to software and tools available for | Very Good | 40 |
| | your research? | Good | 10 |
| | | Fair | 12.5 |
| | How do you find the | Excellent | 62.5 |
| | editing/documenting/ plagiarism checking and | Very Good | 27.5 |
| | other supporting tools provided by the institute for article writing? | Good | 10 |
| | | Fair | 0 |

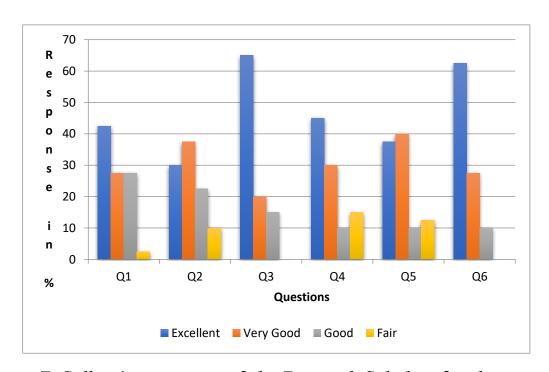


Figure 7. Collective response of the Research Scholars for the questions from 1 to 6

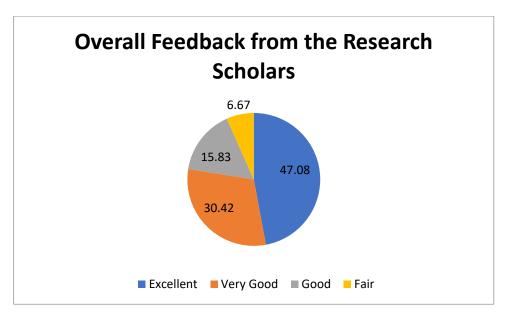


Figure 8. Overall feedback from the Research Scholars

5.5 Survey from the Parents

For the parents of on roll students, questions were designed to ensure information and notification provided in the institute for admission, login credential for internet connectivity, efficiency of online fee payment system, receipt of email and SMS for admission and the effectiveness of online admission process as shown in Table.5. 1511 number of parents responded. The collective response is depicted in Figures 9, the response to the individual questions varied from person to person, where the overall response is given in Figure 1

Table 5. Survey Questionaries for Research Scholars

| Q.No. | Questions | Options | Response in % |
|-------|--|-----------|---------------|
| | How do you rate the | Excellent | 73.42 |
| 1 | information given in the institute website for the admission of your ward? | Very Good | 15.05 |
| _ | | Good | 9.7 |
| | | Fair | 1.83 |
| 2 | How do you see the notification given in the university website? | Excellent | 71.59 |
| | | Very Good | 18.28 |
| | | Good | 8.86 |
| | | Fair | 1.27 |

| | How efficient is the online fees payment system? | Excellent | 70.75 |
|---|--|-----------|-------|
| 3 | | Very Good | 16.74 |
| | pulpulation by comme | Good | 10.55 |
| | | Fair | 1.97 |
| | How do you assess the intimation provided to your registered email/SMS by the institute for counselling/admission? | Excellent | 73.42 |
| 4 | | Very Good | 15.75 |
| 4 | | Good | 9 |
| | | Fair | 1.83 |
| | How do you evaluate the online application process for admission | Excellent | 73.14 |
| 5 | | Very Good | 16.03 |
| | into GRI? | Good | 9.14 |
| | | Fair | 1.69 |

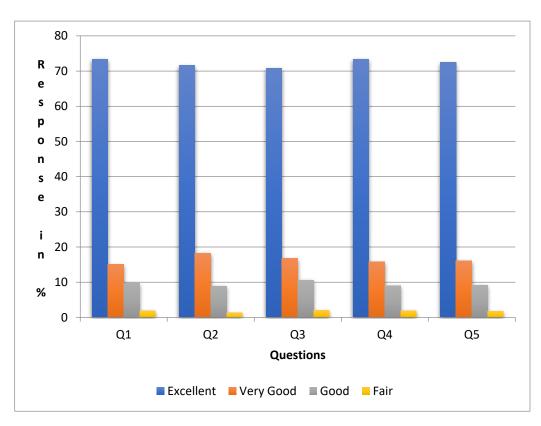


Figure 9. Collective response of the parents for the questions from 1 to 5

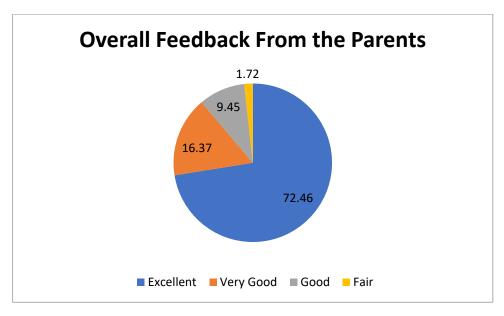


Figure 10. Overall feedback from the Parents

6. ACTION TAKEN REPORT

| S.No. | Resources | Observation | Action Taken |
|-------|--------------------|-------------|--|
| 1 | Computing facility | Good | Respective Departments/Section are asked to generate funding to increase computational facilities. |
| 2 | ICT infrastructure | Good | Needy Department are requested to improve the ICT facilities |
| 3 | Internet service | Good | Request made to increase the internet bandwidth |
| 4 | Student Portal | Very Good | Additional features like student email ID is requested |

| | | | Exclusive mobile app of the student and scholars of GRI is being developed |
|---|----------------|-----------|---|
| 5 | Staff Portal | Very Good | Request made to enable mobile access to attendance system |
| 6 | Research Tools | Good | Annual subscriptions to Grammarly and Plagiarism checking tool iThenticate need to be renewed promptly |

7. CONCLUSION

It is observed that the existing digital services offered and the infrastructure available in the institute are sufficient for the teaching-learning process and the administrative activities of the institute as such. However, for the research and collaborative activities need to be augmented with additional resources in terms of computing and storage along with the increased internet bandwidth. The necessary tools for documentation (like Grammarly) and plagiarism checking will improve the standards of research. Additional ICT facilities to the needy department/section will augment the existing infrastructure with better access and utilization.

-----% Prepared by %-----