

BEST PRACTICE: I

1. Title of the Practice: Digital Transformation for Sustained Development

ICT has the potential to **bridge the knowledge gap** in terms of improving quality of education, increasing the quantity of quality educational opportunities, making **knowledge building** possible anywhere at any time. ICT has become increasingly more significant in making educational outcomes relevant to job market in revolutionizing educational content and delivery and in fostering information literacy.

2. Objectives of the Practice:

- Making a shift towards Learner-Centered Environment using ICT as a transformational tool
- Enhancing Student Profile to global standards by monitoring progress and performance and increasing competency by achieving Learning Outcomes
- Heightening learners' motivation and make learning process enjoyable.
- Rope-in blended teaching in classroom for multi-dimensional understanding
- Up skilling teachers in ICT for increasing the momentum of learning
- E-Governance in administration for error-free and tamper less work flow
- Fostering an ICT culture in campus and motivating all partakers to benefit from the transformation
- Updating adequate ICT infrastructure for implementing realizing the above objectives.

3. The Context:

In SFRC, situated in a rural backdrop, rural-urban digital divide was largely perceived to be a hindering factor in achievement of learning. In the lines of New National Education Policy 2020, SFRC has also shifted from traditional education to Outcome-based Education. To concretize Outcome-based Approach, ICT knowledge has become an essential factor.

A regular updating of ICT knowledge is a unified element in the learning process and administrative setup. Large number of faculty members was interested in creating e-learning video modules, and ICT tools and were in need of training and infrastructural support. An upgrading was also required to automate college administrative office and the office of the Controller of Examinations to improve efficiency and for perpetuation of records.

Accordingly, the areas and scope of infrastructural upgrading, staff and student training were brainstormed and crowd-sourced. The digital needs were then categorized department wise and for the institution as a whole.

4. The Practice:

Digital transformation was done by cloud-based ERMS and **E-content Development Cell and Information Resource Centre (IRC)**.

Initiatives through E-Content Development Cell:

E-Content Development Cell, established in 2012, aims at digitizing teaching-learning environment and co-ordinates teachers, students and facilitates e-content creation.

Staff Training is provided for Creation of **Mindmaps, Multimedia Learning Materials, Audio Lessons and Video lessons/Learning Objects** and utilization of following:

- Adobe Dreamweaver (with SFRC template)
- Adobe Premiere Pro
- Power Director
- Adobe Captivate
- SFR Learning Management System.

ICT Usage:

- Institutionally-prepared **MOOC template**.
- E-Content Development Cell has trained teachers and students to create **Mind maps** for graphic representation.
- They are trained to create e-content and publish through SFRC CONNECT YouTube channel.
- **Interactive LMS** is utilized for course wares, online assignments, quizzes, discussions.
- Online Examinations are conducted for Part IV courses

ICT Hardware/Software:

- Wi-Fi-enabled classrooms with 100 Mbps internet connectivity.
- ICT-enabled classrooms, seminar halls and Laboratories with V/Projector/Interactive Device.
- **Green Matte Studio** with mixing/editing equipments and **Final Cut Pro software**.
- **Lecture Capturing System** www.a.impartus.com/
- 647 computers for academic purpose
- Learning Management System www.sfrmlearning.org
- **E-DrawMax Software** to create mind-maps
- **Adobe Captivate** for creating quizzes/e-materials
- **G-Suite for Education**, a cloud-based productivity suite, incorporated in college website, for interactive and continuous learning
- **Matlab** and **Schrodinger** software

Initiatives through IRC:

- IRC with 20 computers is available for research.
- **URKUND plagiarism software** is used by staff/scholars/PG students.
- Remote access is available for accessing library resources.

- Instruments in **Science Instrumentation Centre** are computer-assisted for deriving results.

Cloud-based ERMS Portal:

- **ERMS** is effectively implemented with modules for online admission, Fee Payment, Attendance, OBE/CBCS Modules, Examination, HR & Payroll, Registrar Office, Hostel Management, Alumni Management, Feedback Management System, Automated Mailing System offer synchronization of academics and administration,
- **Faculty portal** is used for students' attendance, uploading syllabus, Rubric creation for all CIA components and Mark entries. Students can view profile, enroll for courses, give feedback and complete Course Exit Survey through **Student portal**. **Parent portal** is available to view their wards' progress and attendance.
- **Examination portal** automates all procedures from Nominal Roll preparation to result publication and generation of Attainment Statements. Separate lab with 20 laptops for external examiners to set OBE-based question papers.
- Faculty training on Flair-ERMS software is conducted.
- Non-teaching staff attended **Workshops/Training Programs on PFMS/EAT modules**.

5. Evidence of Success:

- ICT-enabled classrooms created visual learning environment improving learning outcomes.
- State-of-the-art LCS classrooms enabled students to relearn lessons at their pace.
- Integration of ICT-enabled faculty to constructively align teaching with course outcomes
- 114 Dreamweaver e-learning modules, 277 Videos/Learning Objects and 32 audio lessons were prepared by faculty. More than 3482 mind maps are created by faculty.
- Two **Best E-content Awards** were awarded for faculty with extraordinary content.
- **SFRC Connect YouTube channel** has earned 2.87K subscribers and 94,403 visits in a short span of time.
- A paper published on student-centric LMS in a national level conference in the year 2015
- Successful implementation of OBE in SFRC has led to development of staff members as resource persons to disseminate information to six colleges.
- A culture of continuous updating through FDPs, Webinars conducted all round the year is achieved.
- Faculty use collaborative methods for sharing content, exam papers, attendance and mark sheets.

- Staff members and students have been involved in uninterrupted learning activities, timely completion of syllabus and prompt conduct of End Semester Examinations during pandemic lockdown,
- Administrative staff are well-equipped and future-ready to incorporate changes in technology.

6. Problems Encountered and resources Required:

Students hailing from villages suffer a lot without proper internet connectivity. They are not financially well enough to possess electronic gadgets. They often encounter problems with belated submission of content. Because of social customs related to gender, there are also problems in usage of devices at homes.

The institution has to bear huge investment for updating ICT infrastructure. It is also responsible for quality of content in terms of error-free, easy access and uploading and editing processes. The real challenge is that content needs to be original and have no violation of copyrights. Faculty needs more training to learn and use ICT methods. They also have to invest more time for preparing quality content within a short span of a semester. Motivating faculty belonging to non-computer disciplines to use technology is a big challenge. But the pandemic has altered this trend and made them dive into ICT enabled-teaching.

7. Notes:

IQAC enabled the creation of a virtual learning environment and connectedness during the COVID19 pandemic:

- Creation of Google Classrooms and WhatsApp groups for each course in all the departments.
- Sharing study materials, question papers and answer scripts through College Email Id.
- Conducting regular online classes through Google Meet.
- Creating video lessons and uploading in **SFRC Connect YouTube Channel** with an awareness on copyright issues.
- Introducing online tools and resources like Pen Tablet, Interactive White Board, Games and Quizzing software.
- Conduct of online exams through Google Forms/LMS/Mail and results were published on time.
- Conduct of Webinars on various topics through Google Meet and Live streaming sessions through Google and YouTube. All recorded sessions are available for access by students in **SFRC Connect**.

Apart from teaching and learning, Ward Meeting, EAS, Orientation, Induction Programmes and Teachers' Day celebrations were conducted during the pandemic period.