Royal Education Society's

College of Computer Science and Information Technology (COCSIT),

COCSIT Campus, Ambajogai Road, Latur.

Institutional Development Plan (IDP)

2023-2033

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About the Institution

This college is managed by Royal Education Society, Latur, with the mission - Rute Dnyananna Mukti (Liberation is possible with right knowledge)

The institution has an unflinching faith in the spread of state-of-the-art education in the area of the Marathwada region. The College believes in bringing the youth of this region in the mainstream of the modern society.

It, very sincerely, wants the young in the area to be equipped with modern education. Then only, the students of the soil will be able to take on their global counterparts. Our mission is to liberate the students of this area from ignorance, poverty, unemployment, etc.

The prime concern of the institution is to mould the personality of its students from every angle. The institution also tries to inculcate deference for the ethical values sans which any material advancement is rendered void. Students armed with the knowledge of Computer Science, Information Technology and Biotechnology will make this world a better place for themselves and for the others. The Royal Education Society is trying to create a place for itself in the Global Village.

Vision of the College:

"To Impart Quality Education and Job Oriented Trainings in the Field of Computer Science, Information Technology, Biotechnology and Management Science."

Mission of the College:

1) Providing Best Possible education to our students

2) Developing the Skilled human resource

3) Enhancing Employability of students

Core Values:

1) Commitment to Excellence:

We strongly believe in imparting quality education which fulfils the demand of the industry and timely assess our performance to ensure quality. We set high standards for ourselves in all of our actions and activities.

2) Well-disciplined in planning and execution:

To achieve set goals meticulous planning and student friendly discipline is our strength. We are sure that well-planned programs meet expectations.

3) Student-centric System:

Our every activity is designed and arranged keeping the students' progress and welfare at the center of all. We keenly work on student related issues for their holistic development.

4) Encouragement of Innovation:

We believe in idealism, innovation and creativity and regularly re-examine our programs and practices so that every area of the college life will be continually improved and renewed.

5) Value Positive and Constructive Change:

Making change in the way of working helps to handle diverse issues in the process of learning. We timely pursue positive and constructive change for change.

Motto

"Knowledge is liberation of mankind"

ऋते ज्ञानान्न मुक्ति: |

श्रेष्ठ ज्ञानाशिवाय सुटका नाही.

Details of SWOT Analysis:

Institutional Strength

1. A Supportive and Participative Management

2. Dynamic leadership and visionary management

3. Central location and eco-friendly campus with beautiful surroundings.

4. State-of-the-Art Infrastructure with high configured computer lab and Biotech Labs

5. Career-oriented undergraduate and post-graduate programmes

6. Fully functional Training and Placement Cell

7. Forum activities for enriching personality of the students

8. Additional Training programmes on JAVA, .NET, Software Testing, Web Technology

9. Regular conduction of the campus placement drives of the multinational companies

10. Transparency in governance and administration

11. Good demand ratio of student enrolment and intake

12. Popular Institute for education in IT, Biotechnology

13. A tradition of merit in university examination

14. Committed Institution for welfare of the students

15. Active and supportive Alumni

16. Research Centers with adequate research facilities

17. State of art laboratories

18. Academic Linkages with International and National Research Institutes

Institutional Weakness

1. Unavailability of excellent & qualified teachers.

2. Average placement ratio

3. Being self-financed college no other source than students' tuition fee for mobilization of

4. Student dropout rate is reasonably high

5. Limitation for industrial tie ups due to geographical location Limited space for infrastructure augmentation on the main campus

6. Non availability of Professional Resource Persons

7. Lack of Patent generation

Institutional Opportunity

1. Digital classrooms

2. Increasing the percentage of Placement Ratio

3. Providing the internship in IT and Biotech Industry

4. Providing the off Campus Placement opportunity to our students

5. To have more collaborations with national research institutes and colleges for exchanging the required resources

6. To become an autonomous institution

7. To work with industry for betterment of the students

8. To promote Research environment

9. Consultancy services should be strengthened

10. Enhancement of research activities through Industry Sponsored R & D Projects

Institutional Threats

1. To work with industry for betterment of the students.

2. Academic quality enhancement.

3. Retaining the staff

4. Efforts should be made for attracting more good students from other states for admission and pursuing education

5. Increasing placements through campus interviews

6. Financial constraints for infrastructure development

7. Attraction of qualified teaching staff

8. Attraction of students from other states and countries

9. Development of Incubation Centre

10. Promotion of Start-ups

11. Leverage the strengths and network of the Alumni to the fullest of its potential

Goals of the Institution

1) Long Term Goals

1. To be the best and imminent institution in the nation.
2. To increase the placement ratio to the 100%.
3. To provide ICT enabled state-of-art infrastructure to our all students.
4. To get accredited with best grade in the nation.

2) Short Term Goals

1. To improve the quality of education by introducing reforms and new initiatives in curriculum formulation, textbook and instructional materials development, teacher training, examination and assessment and monitoring and supervision by 2028.
2. Prepare continuous and lifelong learners by 2028
3. Institutionalize uniform, valid and reliable examination system by 2028.
4. To strengthen basic education through teacher training, use of information and communication technologies, better coordination, integrated curriculum, improved examination and assessment system and strict monitoring and supervision by 2028.
5. To recruit competent, capable and committed scholar-teachers purely on merit basis at all levels of education by 2028.
6. To standardize and institutionalize teacher training arrangements, accreditation and certification procedures and processes in compliance with the National Standards for Teachers by 2028.
7. To review and reform the assessment and examination system to make it compatible with the national and international needs and standards by 2028.
8. To increase and promote regulated and monitored Public-Private Collaborations, Linkages, MoUs for educational development by 2028.
9. Increase and promote culture of research and innovation by 2028.
10. To produce highly educated and technically skilled manpower as per demand and requirement at national and international levels by 2025.
11. To introduce new disciplines, emerging sciences and technologies to equip the students with the latest knowledge, skills and competencies by 2025.
12. To improve and strengthen college community relationship by 2025.

1) Action Plan for Scaling up enrolment of students in UG Courses

1. Outcomes of the UG courses should be given wide publicity so as to reach the targeted audience of the Course.

2. Arranging Orientation Sessions for highlighting the utility of the UG Courses.

3. Skill-Oriented and Job-ready UG Programmes should be introduced as academic flexibility.

4. Giving Advertisements on social media platforms mentioning the Placement opportunities for the UG courses.

5. Syllabi of the Programme should be updated as per the industry needs.

6. Flexibility of courses should be incorporated in the curriculum and student mobility-multiple entry and exit options should be given to the students.

7. Develop and implement credit-based course uniformly across the discipline.

2) Action Plan for Scaling-up Enrolment of students for PG courses:

1. Outcomes of the PG courses should be given wide publicity so as to reach the targeted audience of the Course

2. Job-ready UG Programmes should be introduced as academic flexibility

3. Skill-Oriented Value Added course which make the students job-ready should be introduced

4. Case Study based points should be given credits

5. Internship Programmes should be introduced for hands on experience

3) Action Plan for Introducing new program/ courses:

1. Making the provision for the hard and soft resources

2. Identifying the in-demand technology for which the employment in IT industry can be generated such as UG and PG Programmes in Data Science, Robotics, Artificial Intelligence, Cyber Security, etc. should be introduced

3. Besides the Value Added course can also be made available for the students' all-round development Value Added Courses of around 20 hours' like Soft Skills, Personality Development, Business Ethics and Correspondences etc.

4) Action Plan for Strengthening of UG/PG programmes/ Ph.D program:

1. Teaching Learning Method should be redefined- Mixed approach (Online and Offline) for Teaching should be adopted by the teachers.
2. Teachers should prepare their MOOC/ NPTEL/ YouTube or other Video Courses on their specialized subjects may be in the language the students understand comfortably.
3. Introducing the Add-On course of around 30 Hours should be introduced in each semester.
4. Seminars, Conferences and Panel Discussions and other activities should be arranged.

5) Action Plan for Alumni engagement:

1. Academic Plan for the Alumni Meet should be prepared in the beginning of every academic year Academic and should be executed promptly.
2. Inviting Alumni for the Guest Lectures (Provision for remuneration for alumni shall be made for arranging guest lectures).
3. Inviting Alumni for Parents Meet of the current Students.
4. Arranging informal gathering or get together alumni along with their family.
5. Seeking Feedback form alumni on Curriculum, Overall College facilities and inviting their suggestion for the college in general.

6) Action Plan for Student placement:

1. Preparing a roadmap for student placements and displaying that to on the prominent places

2. Orientation Session on "How to Get Placed in IT Industry" should be frequently arranged for the students

3. Communication Skill Enhancement Activities should be arranged systematically and Tailor-Made Training on Communication Skills should be conducted for every students

4. Soft Skills and Personality Development Programmes have to be arranged for the students

5. Counselling Sessions for Interview Preparation should be arranged regularly

6. Provision for skilled and dedicated Trainers for each subjects should be made

7. Training Programmes as per the industry need should be arranged

8. Collaboration with industry partners should be functional

9. Industrial Visits / Study Tours IT and BT industries should be arranged

10. Conference on Placement Opportunities should be arranged

11. Career Guidance Cell should be functional

12. Software for tracking the academic and Training Progress should be introduced

13. Industry Standard Assessment Subscription as well as Remoter Proctored Exams should be arranged frequently

14. Display boards on important Topics should be arranged in Training and Placement Cell

15. Placement Promotion Activities should be arranged frequently- Resume Building, Email Writing, Essay Writing, Job Profiles in IT industry, Company Profile etc.

16. Well prepared and well planned study material for the preparation of Aptitude Test should be made available in Library

17. Graded Aptitude Test should be given to all the college students as an assignment and should be given some internal credits to it

18. Company HR Connect Sessions should be arranged for getting updates/ alerts of Hiring with help of alumni

7) Action Plan for Enhancing ICT based teaching learning process and infrastructure:

To enhance the ICT (Information and Communication Technology) based teaching-learning process and infrastructure for institutional development, there are several steps that can be taken:

1. Conduct a needs assessment: Identify the current state of ICT infrastructure and teaching-learning processes in the institution. This will help to identify areas that require improvement and the types of technology that will be most effective for the institution.

2. Develop an ICT plan: Based on the needs assessment, develop a comprehensive ICT plan that outlines the specific technologies that will be implemented, the timeline for implementation, and the budget required.

3. ICT enabled classrooms/laboratories: Institution has ICT enabled classrooms, the learning environments where technology is integrated into teaching and learning activities to enhance the quality of education. In ICT-enabled classrooms, digital tools such as computers, projectors, tablets, interactive whiteboards, wifi or LAN internet, and other multimedia devices are used to facilitate teaching and learning.

4. ICT Implementation ways:

   a. Online Learning Platforms: There are several online learning platforms such as Coursera, Udemy, and edX that offer online courses on various subjects. Teachers can use these platforms to access course content, create assignments and assessments, and track student progress.

   b. Interactive Whiteboards: Interactive whiteboards allow teachers to display digital content and manipulate it using a touch screen or a stylus. Teachers can use them to create multimedia presentations, brainstorming sessions, and collaborative activities.

   c. Educational Apps: There are several educational apps available for different subjects such as math, science, and languages. These apps offer interactive learning experiences that can engage students and improve their understanding of the subject.

   d. Multimedia Resources: Multimedia resources such as videos, podcasts, and interactive simulations can be used to explain difficult concepts and engage students in the learning process.

e. Online Assessment Tools: Online assessment tools such as Kahoot, Quizeez and Google form can be used to create quizzes and assessments that students can complete online. These tools offer instant feedback and can be used to track student progress.

f. Virtual Reality: Virtual reality can be used to create immersive learning experiences that can transport students to different environments and historical periods. It includes VR Headset, 360 view videos, google lens, 3D video content, VFX.

g. Online classes and examination: Online classes and examination these are conducted on regular basis by the institution at the time of pandemic lockdown. Student counselling, parent meet, every event organised in college broadcast with youtube, facebook live.

5. Train faculty and staff: Provide training for faculty and staff to help them develop the necessary skills to use the new technology effectively. This can be done through workshops, seminars, or online training modules.

6. Develop digital content: College develop digital content that is relevant and engaging for students. This can include soft copy notes, power point presentation, video lectures made by teachers, interactive simulations, and online assessments.

7. Provide adequate infrastructure: Ensure that the institution has adequate infrastructure to support the new technology, including high-speed internet connectivity, CCTV monitoring, Television to display audio-video content, sound system for announcements, digital library, journals, QR/barcode based identity card authentication system, reliable power supply, and appropriate hardware and software.

8. Monitor and evaluate progress: Regularly monitor and evaluate the implementation of the ICT plan to identify areas of success and areas that require further improvement. This will help to ensure that the institution is achieving its objectives and making progress towards its goals.

Overall, enhancing the ICT-based teaching-learning process and infrastructure requires a comprehensive approach that involves planning, training, and infrastructure development. By implementing these steps, the institution can improve the quality of education and ensure that students are prepared for the demands of the digital age.

8) Action Plan for Implementation of skill based and value added courses:

Implementing skill-based and value-added courses involves a systematic approach that focuses on identifying the relevant skills and knowledge required by the learners, designing appropriate course content and assessments, and delivering the courses in a way that enhances the learners' abilities.

Here are some steps that can be followed to implement skill-based and value-added courses:

1. Identify the skills and knowledge needed: The first step is to identify the skills and knowledge that learners need to acquire. This can be done by analysing job descriptions, industry requirements, and consulting with experts in the relevant fields.

2. Design the course content: Based on the identified skills and knowledge, the course content should be designed to meet the needs of the learners. The content should be practical, relevant, and engaging.

3. Create assessment tools: Assessment tools should be created to measure the learners' progress and mastery of the skills and knowledge. These assessments should be designed to be practical, relevant, and challenging.

4. Deliver the course: The course can be delivered in a variety of formats, including classroom-based training, online learning, and blended learning. The delivery method should be chosen based on the needs of the learners and the available resources.

5. Evaluate the effectiveness: Finally, the effectiveness of the course should be evaluated to determine if the learners have acquired the required skills and knowledge. Feedback from the learners, assessments, and other data can be used to evaluate the effectiveness of the course.

Overall, implementing skill-based and value-added courses requires careful planning, effective design, and efficient delivery. By following these steps, organizations can equip learners with the skills and knowledge needed to succeed in their careers and add value to their organizations.

9) Action Plan for Enhancing enrolment of students/faculty for opting online:

There are several ways to enhance enrolment of students/faculty for opting online. Here are a few suggestions:

Communicate the benefits: Make sure to communicate the benefits of online learning, such as flexibility, convenience, and access to a wider range of courses. Highlight how online learning can fit into students' and faculty members' busy schedules, and how it can provide them with the opportunity to learn at their own pace.

Offer incentives: Consider offering incentives for students and faculty members who opt for online learning. For example, you could offer discounts on course fees or provide access to additional resources and support.

Provide training and support: Offer training and support to help students and faculty members feel confident and comfortable with online learning. Provide resources such as tutorials, guides, and online forums where they can ask questions and get help when needed.

Make it easy to enrol: Ensure that the process of enrolling in online courses is easy and straightforward. This could include providing clear instructions, offering online enrolment options, and providing a user-friendly platform.

Showcase success stories: Share success stories of students and faculty members who have benefited from online learning. This can help to inspire others to enrol in online courses and can also serve as a testament to the effectiveness of online learning.

10) Action Plan for Improving collaboration with Industry:

Improving collaboration between industry and college can be beneficial for both parties. Here are some ways that this can be achieved:

1. **Establishing partnerships:** Colleges and industries can partner to develop joint research projects, internships, and other collaborative initiatives. These partnerships can help both parties to gain access to new resources, skills, and knowledge.

2. **Industry Advisory Boards:** Colleges can establish industry advisory boards made up of industry leaders who can provide feedback on curriculum, offer internships, and provide other opportunities for students.

3. **Sharing resources:** Industries can share resources with colleges, such as equipment and facilities, to enhance the educational experience for students.

4. **Co-creation of curriculum:** Industry representatives can work with college faculty to develop curriculum that is relevant to the industry's needs. This ensures that students are being trained in skills that are in demand in the job market.

5. **Guest lectures and workshops:** Industry professionals can be invited to deliver guest lectures and workshops at colleges, providing students with real-world insights and experiences.

6. **Joint research:** Colleges and industries can collaborate on research projects to solve industry problems and generate new knowledge.

7. **Funding opportunities:** Industries can provide funding for research projects, scholarships, and other educational initiatives that benefit both parties.

Overall, collaboration between industry and college can lead to mutual benefits, including increased innovation, improved educational outcomes, and enhanced job opportunities for graduates.

11) Action Plan for Improving Research by faculty. Developing Research interest among undergraduate students and collaborating with Indian and Foreign Institutions in academic and research Area through MoUs:

Improving research by faculty, developing research interest among undergraduate students, and collaborating with Indian and foreign Institution in academic and research areas through MoUs are important steps towards enhancing the quality of education and research in universities. Here are some potential strategies to achieve these goals:

1. **Faculty Development Programs**: Organizing training programs and workshops for faculty members to enhance their research skills and knowledge in their respective fields can be very helpful in improving research outcomes. These programs can be organized in collaboration with other Institution or experts in the field.

2. **Research Grants and Funding:** Providing research grants and funding to faculty members to undertake research projects can encourage them to conduct more research and publish papers in top-tier journals.

3. **Research-oriented Curriculum:** Introducing research-oriented curriculum and projects in undergraduate courses can help in developing research interest among students. Providing opportunities for students to participate in research projects with faculty members can also help in developing their research skills.

4. **Industry Collaboration:** Collaborating with industries can provide opportunities for students and faculty members to work on real-world problems and gain practical experience. Such collaborations can also lead to research partnerships, internships, and employment opportunities for students.

5. **International Collaboration:** Collaborating with foreign universities and research Institution can help in knowledge exchange, joint research projects, and international exposure for students and faculty members. Signing MoUs with foreign Institution can provide a framework for such collaborations.

These strategies can help in improving research outcomes, developing research interest among students, and creating opportunities for international collaboration in academic and research areas.

12) Action Plan for Contribution to social and Environmental awareness activity:

Colleges can play an important role in contributing to social and environmental awareness activities. Here are some ways that colleges can get involved:

1. Offer courses and programs related to social and environmental issues. This could include classes on sustainability, environmental policy, or social justice.

2. Host events and speakers who focus on social and environmental issues. This could include panel discussions, lectures, or film screenings.

3. Implement sustainable practices on campus. This could include using renewable energy sources, reducing waste, and promoting eco-friendly transportation options.

4. Encourage student involvement in social and environmental awareness activities. This could involve supporting student-led organizations and clubs that focus on these issues.

5. Partner with local non-profit organizations to support their social and environmental initiatives. This could involve volunteering, fundraising, or offering educational resources and expertise.

By taking these steps, colleges can help raise awareness about social and environmental issues and inspire students to take action to make a positive impact in their communities.

13) Institutional Project Budget:

Creating a budget for an educational institutional project will depend on several factors, including the scope of the project, the resources available, and the timeline for completion. Here are some steps to help you create a budget for an educational institutional project:

1. **Define the scope of the project:** This includes identifying the purpose, objectives, and expected outcomes of the project.

2. **Create a list of required resources: This** includes identifying the materials, equipment, and personnel needed to complete the project. For example, you may need to purchase textbooks, software, or hire additional staff.

3. **Estimate the costs of resources:** Once you have identified the required resources, you will need to estimate the costs associated with each one. This includes researching the prices of materials, equipment, and personnel costs.

4. **Determine the timeline for completion:** You will need to estimate the length of time it will take to complete the project, including any milestones or deadlines.

5. **Allocate resources:** Once you have estimated the costs and timeline, you will need to allocate resources accordingly. This may involve prioritizing certain resources or making trade-offs between different resources.

6. **Monitor and adjust the budget:** Once the project is underway, you will need to monitor the budget and adjust it as necessary. This includes tracking expenses, identifying cost overruns, and making adjustments to the budget as needed.

Overall, creating a budget for an educational institutional project requires careful planning, research, and monitoring. By following these steps, you can ensure that your project stays on track and within budget.

14) Specific objectives and Expected Results of IDP:

Specific Objectives

1. Opening New Courses
2. Introducing add on courses to enhance the relevance and quality of existing course

3. Increase number of linkages and MoUs, Organize and attend seminars, conferences, encourage research projects and publications

4. Strengthen the placement cell and introducing classes for competitive exams in collaboration with other industries

5. Identifying infrastructure requirements, digitalization of library, technology enabled class rooms, toilets, staff rooms, auditorium, indoor stadium, projectors, highly configured computer laboratories

Expected Outcome

1. Greater access and equity in education, employment and opportunities for growth

2. Greater employability and provision for students to go on higher studies and research

3. An updated student and faculty with recent knowledge of technology

4. More number of students to be employed

5. Quality education, effective teaching methodology through better infrastructure

15) Targets against the Deliverables

1. Increase enrolment: To Increase student enrolment by a certain percentage within a specified period. This can be achieved through targeted marketing, outreach, and recruitment efforts.

2. Enhance quality of education: Improve the quality of education by developing new courses, updating the curriculum, and providing professional development opportunities for faculty members.

3. Expand research activities: Expand research activities by increasing funding for research, establishing new research centers (such as AI and Machine Learning, Data Science), and collaborating with industry partners.

4. Improve facilities: Improve the facilities by upgrading its infrastructure, expanding its library, and acquiring new equipment and technology.

5. Increase community engagement: increase engagement with the local community by offering outreach programs, hosting events, and collaborating with community organizations.

Modes of Deliverables

- Arranging training for faculty on trending and most demanding technologies.

- Preparing faculty to deliver training program on various technologies as per the industry needs. (by arranging industry visits)

- Preparing Technology wise/subject wise/ Tropic wise presentation and Lab Manual for students.

- Preparing Technology wise video contents/ Video Tutorial, **YouTube** channels, Ready to use programs/ small projects to be available on **GitHub** like platforms.

- Designing online courses on various technologies.

- Designing web based/mobile based platform for conduction online assessment, online assignments, attendance, etc.

- Improving ICT based methodologies in training.

- Arranging training program for students on various demanding technologies

- Arranging training program on Communication Skills, Quantitative Aptitude (QA), Logical Reasoning (LR)

- Arranging MOCK Interview Session for various IT Companies

- Improving Internal Assessments- UNIT Tests, Pre-Semester Examination

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