

# Perspective Plan 2021 - 2026



Prepared and Submitted by Internal Quality Assurance Cell (IQAC)

Shri Shivaji Education Society, Amravati's

## Shri Shivaji Science College

Amravati, Maharashtra - 444 603

A UGC - CPE, NAAC - "A" Grade Identified as : DST – FIST, SGBAU – Lead College

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The future perspective plan for the duration 2021-26 has been prepared by IQAC keeping in view the future prospects in higher education along with new NEP and to offer best quality education to the students of this Amravati region.

#### **VISION**

To develop the Institute as a Centre of Higher Learning ever abreast with the expanding horizon of knowledge in the field of Science and to facilitate transformation of students into good human beings, responsible citizens and competent professionals.

#### **MISSION**

- To provide quality education, equip them with analytical insights, intellectual maturity, strength of purpose and willingness to work hard conforming to ethical values.
- To be a bridge between the rural-urban divide, taking the benefits of education to the poor and the marginalized, aiming at their empowerment.
- To ensure access to and equity in higher educational opportunity to all deserving and meritorious students with a preferential option for the poor and marginalized, irrespective of caste and creed.
- To attract and develop talented and committed human resource, and provide an environment conducive to innovation, creativity, team-spirit and entrepreneurial leadership.

#### MECHANISM TO DEVELOP PERSPECTIVE PLAN

Institutes has Internal Quality Assurance Cell (IQAC) to develop and monitor the strategic planning of the institutional progress. The prime focus of the IQAC is on development of the Perspective Plan for five years after NAAC Assessment. The college has completed its NAAC Validity period in the November 2020. As per the routine process, IQAC has taken an initiative to design the Perspective Plan for the period of 2021 – 2026.

In the initial phase IQAC has reviewed the previous perspective plan (2015 - 2020) and prepared the deployment document to evaluate attainment of the objectives propose in the plan. Further, the Core Committee for the development of the Perspective Plan was constituted and asked to submit the report within one Month.

The core committee has prepared the draft of the Perspective Plan 2020 - 2025 and placed before IQAC. After through discussion in few rounds of the meeting IQAC reframed the Perspective Plan.

The final approval to the Perspective Plan 2020 - 2025 was given in the Dec. 2020 and eventually the Perspective Plan was renamed as **Perspective Plan 2021 – 2026**.

### **IQAC TEAM**

Sr.No.	Name	Category	
1.	Dr. V. G. Thakare	Chairperson: Head of the Institution	
2.	Hon'ble Shri H.P. Deshmukh President, Shri Shivaji Education Society, Amravati	Member from the Management	
3.	Dr. H. S. Lunge	IQAC Coordinator	
4.	Dr. W. S. Barde	Teacher Member	
5.	Dr. P. R. Padole	Teacher Member	
6.	Dr. Mrs. S. P. Ingole	Teacher Member	
7.	Dr. G. A. Wagh	Teacher Member	
8.	Dr. D. D. Khedkar	Teacher Member	
9.	Dr. M. S. Gaikwad	Teacher Member	
10.	Dr. P. A. Nagpure	Teacher Member	
11.	Dr. U. S. Junghare	Teacher Member	
12.	Dr. P. W. Deotare	One Nominee from local society	
13.	Sh. Milind Chimote	One Nominee from Alumni	
14.	Sh. Satish Taral	One Nominee from Employers	
15.	Sh. Kiran Paturkar	One Nominee from Industrialists	
16.	Dr. H. S. Lunge	One Nominee from Stakeholders	
17.	Sh. Mahesh Patil	Member from Administrative officers	

## **Perspective Plan Development Core Committee**

Sr. No.	Name	Category
1.	Dr. V. G. Thakare	Chairman
2.	Dr. H. S. Lunge	IQAC Coordinator
3.	Dr. W. S. Barde	Teacher Member
4.	Dr. D. Khedkar	Teacher Member
5.	Dr. M. S. Gaikwad	Teacher Member

# STRENGTHS, WEAKNESSES, OPPRTUNITIES AND CHALLANGES (SWOC)

#### **STRENGTHS:**

- 1. Parent management with high academic and research interest and social priority
- 2. Proactive, qualified, experienced and experimental teaching faculty holding the important positions in the authorities of affiliating University and NGOs as well
- 3. Motivated, inspired and meritorious students (Inspire Fellows)
- 4. Experienced and dedicated technical and non-teaching staff
- 5. Strong emotional bondage between students and faculties
- 6. State of Art facilities in smart classrooms, equipped laboratories and library
- 7. Quality endorsed by own University as Lead College; Central Agencies through provisions of status / grants under CPE and FIST; financial assistance to the minor and major projects and ISO Certification
- 8. Productive research centres with the facility of Central Instrumentation Cell equipped available for research scholars in and around the college
- 9. Patents granted to the faculty members
- 10. To nurture the innovative ideas of the students, dedicated "Science Innovation and Activity Centre" is available
- 11. On campus accommodation facility with Gymnasiums for girls and boys
- 12. Pioneer institute for Guardian Teacher Scheme
- 13. Complete Chain of courses from HSSC to Post PG (research) is available under one roof
- 14. Enrolment of the good number of in house and other students to Online Add on and Value Based Courses conducted by college shows preparedness to enter into the new methodologies envisaged in Blended Mode of Learning proposed by UGC
- 15. Comprehensive use of ICT by teaching faculties makes learning a joyful experience
- 16. Significant blending of pedagogies by maximum teachers to conserve democratic participation of the students in classroom
- 17. One of the very few institutes encashing the benefit of CBCS scheme to earn additional credits for students by providing them "General Interest Courses"
- 18. Lush green, hygienic, and huge campus with maintenance of the diversity of the flora and fauna
- 19. Noteworthy active collaborations and MoUs with the teaching, research, industrial and Non-Government institutions
- 20. Availability of the Online Learning Resources from Swayam, NPTEL, Amrita Virtual Lab, etc. through Local Chapter and Nodal agency
- 21. Significant Extension and Outreach activities realised remarkable social impressions; and offer from the Government agency like MPCB to establish Ambient Air Quality Monitoring Centre.
- 22. Cultural activities earned topmost position in the University as "General Champion".

#### **WEAKNESSES:**

- 1. Being institution offering conventional UG courses, students choosing placement opportunities are very few and opportunities for internships are limited
- 2. Limited scope for revisions and modifications in the curriculum and examination reforms at institute level due to administrative set up of the University
- 3. Placement opportunities are very less due to inadequate growth of industries in local area
- 4. Regional barrier resulted into lack of student admissions from other state and nations
- 5. Alumni Association needs strengthening in terms of financial support from alumnus and eventual provisions from the institute in general and students in particular
- 6. Extension activities needs regional expansion to receive recognition at state and national level
- 7. Institute has to reach philanthropists, NGOs, and individuals to receive support to various innovative programs, scholarships and infrastructural developments
- 8. The crunch of negligible financial support from the government agencies does not allow institute to offer any fellowships to the students at its own
- 9. Lack of openings for faculty and student exchange
- 10. The lack of proficiency in English communication, ICT applications, hands on training of modern equipments reduces capabilities of non-teaching staff
- 11. Single faculty Science College has limitation to offer skill components in linguistics and communication to the greater level

#### **OPPRTUNITIES:**

- 1. Institutional Innovation Council and Science Innovation and Activity Centre working under college is the most prospective platform to bring innovative ideas of the students and the faculties to reality and scale them up
- 2. Potential CIC of the institution opens new vistas to emerge as Popular Research Centre
- 3. Strengthening of Innovative Pedagogy Development Centre will conceive many teaching methods to upgrade learning levels
- 4. Addition of the new faculties in almost every department will lead to conception of interdisciplinary research
- 5. MoU established with various associations will be concretised by offering Internships and Student Exchange Programme.
- 6. Transformation of the ICT classroom in to the smart classrooms to enhance enjoyable experience in the learning process

- 7. Legacy of the excellence in Cultural Activities will be uplifted to State and the National Level
- 8. Incorporation of dedicated schemes under Career Counselling and Entrepreneurship

  Development Cell to produce more employer as well as employable graduates
- Addition of the PG Courses, Online Courses, provisions of the selective courses from SWAYAM, NPTEL and other platforms will offer complementary knowledge and skill component to the students
- 10. Participation of the motivated faculties in workshops/training programmes at National and International level will cater resourcefulness to them
- 11. Competing for the financial support under various schemes like PMMMNMTT, CPE, FIST, BUILDER, STAR, etc. will reinforce the facilities and confer progressive learning environment
- 12. Experimental aptitude of the faculties will make very affluent gelling in to the forthcoming transformations due to enforcement of the National Education Policy.

#### **CHALLENGES:**

- 1. Decreasing attendance in the classrooms due to excessive emphasis on the online education and overuse of the digital gadgets
- 2. Declining importance of the conventional courses over the applied may degrade the foundation of the knowledge
- 3. Higher level knowhow of the technological advances in T, L & E for the senior faculties
- 4. Incorporation of changes or addition of the Skill Components in the existing curriculum devised by affiliating University
- 5. Placement for the students with graduate degree with Basic Sciences
- 6. Costs applicable to publish research papers in journal indexed in Scopus/Web of Science, etc.
- 7. Research in the fundamental aspects of the sciences may not lead to the Patents
- 8. Sustainability of the Science Innovation and Activity Centre due to paucity of the funds
- 9. Attracting International students due to regional limitations
- 10. Tracking the progress of the students after completing their education from the institute is difficult
- 11. Receiving the donations from the alumnus, philanthropists and making the provisions of the scholarships

#### **OBJECTIVES**

The goals to be achieved during 2021–2026 are formulated for the development with respect to following aspects:

- 1. New Programmes
- 2. Innovative Teaching Learning Process
- 3. Research & Development
- 4. Human Resource and Management
- 5. Support services and facilities for Students
- 6. Infrastructure Development & Management
- 7. Extension and Outreach Activities
- 8. Career Guidance and Placements
- 9. Best and Innovative Practices
- 10. Management Information System
- 11. Alumni Relations

#### 1. COURSES/ PROGRAMMES TO BE INTRODUCED

- PG in Microbiology
- PG in Mathematics
- BVOC / skill development courses
- Short Term Courses
- Bridge Courses
- Introduction of GIC at PG level

Also, in view of enriching/supporting the present curriculum and value-based education following small courses/activities will be introduced.

- Enrichment of curriculum as per need at department level.
- Yoga education
- Communication Skill and Personality Development
- Disaster management
- Women Grooming center
- Value Education and Professional Ethics
- Feed back on curriculum.

## 2. ENHANCEMENT OF TEACHING, LEARNING & EVALUATION (TLE) PROCESS

To cater to the needs of advanced and slow learners along with conventional chalk-and-talk teaching some measures for improvement will be taken.

- Use of ICT in teaching & Learning will be encouraged.
- Use of audio video in the Teaching and Learning process
- Establishment of smart class rooms.
- Self-learning through seminars, field/industry visits will be encouraged.
- To introduce bridge courses & short-term certificate courses.
- Introduction of e-learning and development of e-content
- To cater to the needs of slow learners remedial coaching will be continued.
- To create and maintain the learning ambience, more learner centric activities such as guest lectures, workshops and competitions for the students will be organized.
- The constant formative and summative evaluation will be continued.

#### 3. RESEARCH & DEVELOPMENT

To achieve goals of quantitative and qualitative increase of research output the college he following initiatives will be taken:

- Improving human resource through organization of workshops/conferences.
- Publication in top journals and presentation in national/international conferences will be encouraged.
- Faculty will be encouraged to undertake major and minor research projects from UGC and other funding agencies.
- To get recognition of research laboratory from agencies like DST/DBT/Industries
- Improving existing laboratories and creating new infrastructure and facilities for quality research
- Existing Central Instrumentation facility will be enhanced.
- Collaborative research will be encouraged.
- Faculty/departments will be encouraged to undertake consultancy services.
- Faculty will be encouraged to develop e-resource for research scholars.

#### 4. HUMAN RESOURCE MANAGEMENT

The human resource strategy of this plan is aimed at increasing the strength of the human resources that includes faculty & staff

#### A. Faculty

- The promotion of faculty members through Career Advancement Scheme (CAS) is in place as per the UGC norms.
- For effective implementation of new courses faculty will be deputed for training and short term courses.
- Training programmes and workshops for teachers will also be organized.
- Faculty will be honoured for their quality research.
- To groom leadership among the faculty, opportunity will be given to shoulder various responsibilities in administrative process of the college.
- The college will look after the welfare of the faculty.

#### B. Non-teaching Staff

For the quality processes that are expected to maintain in enhancing standard of the institution a trained staff is essential.

In this regard following activities will be undertaken –

Organizing trainings for administrative and technical staff. The college will look after time bound promotions and welfare of the staff members.

#### 5. SUPPORT SERVICES AND FACILITIES FOR STUDENTS

Following support services and facilities will be made available/enhanced for students.

- Career counseling cell
- Placement cell
- NET/SET coaching
- Language laboratory to improve the communication skills
- Guardian Teacher Scheme
- Grievance Redressal Cell, Anti Ragging Cell
- Looking towards increasing enrollment of the girls special efforts will be taken to groom leadership amongst them.
- Games and sports indoor and outdoor facilities will be increased.

#### 6. INFRASTRUCTURE

Additional infrastructural facilities will be created to cater to the needs generated by the proposed development plans.

Among them the facilities to be created in the near future are-

- New library building.
- Renovation of auditorium
- Wi-Fi in campus
- Advanced IT infrastructure
- Enhancement of NRC.
- Separate class rooms for PG students.
- Construction of new classrooms.
- Non-residential students center.
- Grooming Theatre.
- Students Study Centres -
  - ✓ Wildlife and Bird conservation study centre.
  - ✓ Limnological and fish study centre.
  - ✓ Plant diseases diagnosis study centre.
  - ✓ Remote sensing study centre.
  - ✓ Astronomy and Astro -Physics study center.
  - ✓ Environment Monitoring centre.
  - ✓ Communication Skills study centre.
  - ✓ Open Source Software study centre.
  - ✓ Data analysis study centre.
  - ✓ Spiritual and Value Education study centre.
  - ✓ Dr Punjabrao Deshmukh's vision study centre.

#### 7. EXTENSION AND OUTREACH ACTIVITIES

Along with its academic pursuits the institution shoulders the social responsibilities from time to time.

- Extension activities in collaboration with educational institution of national repute, GOs and NGOs will also be organized.
- Efforts will be taken for carbon neutrality in the campus.
- During the conference and workshops some of the indirect beneficiaries like farmers, small scale industrialists and officials from GOs and NGOs will be invited for an interaction with the field experts.
- Conducting Green Audit with respect to use of renewable energy, water harvesting and Carbon Neutrality, hazardous waste management, e-waste management and biodiversity.
- Energy Audit
- Science Awareness programme.
- Organization of Students Academic extension activities.

- Institutional Social responsibility
- Environmental Awareness Camp & Conservation.
- Establishment of Student Grooming Centers.
- Installation of solar power system and water harvesting.

#### 8. BEST AND INNOVATIVE PRACTICES

Following best practices will be strengthen:

- Rain water harvesting
- Energy conservation measures
- Use of renewable energy sources.
- Waste disposal management, e-waste management and recycling of materials.
- Noise and Air Pollution Monotoring
- Academic and Administrative audit by external peers
- Students Satisfaction Survey

Apart from these best practices college has decided to implement some innovative ideas which will help the institution to improve its quality.

- Introduction of Management Information System.
- Online Admissions of PG
- E- Attendance of students.
- E-academic diary
- Innovations in laboratory teaching will also be encouraged.

#### 9. ALUMNI RELATIONS

- Provision of online registration for alumni.
- More opportunities will be created for alumni to organize various programmes on campus and engage with students and faculty.
  - Alumni will be encouraged to support activities of the college.

#### **SHORT TERM GOALS**

- To keep faculty members abreast with the latest trends and developments in Research,
   Technology and Teaching methodologies.
- To motivate the faculty to remain exposed to the Industrial processes & activities.
- Majority of the students should graduate with Distinction/Honors in all branches.
- To continue the special classes for non-English medium students to improve their Communication Skills.
- All information concerning students/ staff to be made available online.
- To make the Campus green and chemical free.
- To go for the energy auditing of the whole campus.
- We shall strive to produce more national level players in upcoming years.
- Conducting faculty and student development programs for cutting edge trends and technologies.

#### LONG TERM GOALS

- To build & promote teams of experts in the upcoming trends and technologies in education sector.
- To promote quality research and undertake research projects keeping in view their relevance to needs and requirements of technology in local industry.
- To institute a sustained quality system embedded with a conscious, consistent and programmed action:
- To create an enabling academic environment for students embedded with sincerity, discipline and commitment;
- To mould humane citizens of the nation;
- To establish globally the brand image of the college;
- To emerge as a model college for commerce education.

#### METHODOLOGY TO ATTAIN GOALS

Goals: The goals identified have been to bring three 'Hs' together in an integrated manner viz. Hand (to develop skills), Head (to gain advanced knowledge) and Heart (to inculcate human values)

To achieve these goals, a set of following objectives are identified to be achieved through this perspective plan.

- 1. To uphold continuously good academic performance with 100% results;
- 2. To inculcate learner centric and effective teaching learning process;
- 3. To ensure transparency and credibility in the process of students' evaluation;
- 4. To develop a comprehensive system of student mentoring and student support;
- 5. To take care of horizontal and vertical up gradation of students considering the limits of time and expectations;
- 6. To create a research culture in faculty and students.
- 7. To launch value added and skills development programmes improving the employability of students;
- 8. To motivate students for self-employment and to enable them to emerge as entrepreneurs;
- 9. To involve a friendly, efficient and flawless administrative set up ensuring a smooth day to day functioning;
- 10. To empower faculty about emerging trend in their profession for academic advancement.

#### PLAN OF ACTION

The IQAC proposes the following plan of action to achieve the goals and objectives listed in the perspective plan for the academic years 2020-21 to 2025-26:

#### T, L and E Strengthening:

- 1. College shall apply for the Star College Status to upgrade learning experience for the students
- 2. DBT Builder Proposal will be Submitted to strengthen the PG teaching and research activities.
- 3. Psychometric Test will be conducted to identify High Performing and Low Performing Students to channelize specialized activities.
- 4. IQAC shall plan for bridge courses to help students switching from other streams to strengthen their basic concepts.
- 5. Attendance follow up and improvising methodologies will be enforced.
- 6. Continuous and Consistent Internal Examinations will be conducted to assess the students and help them to improve and perform better in the University exams.
- 7. Guest lectures will be organized by inviting experienced faculty from reputed teaching and research institutes.
- 8. IQAC proposes to automate the college library.
- 9. College will Introduce more scholarships for students.
- 10. Students shall be motivated to pursue higher education.
- 11. Increase the number of E- content in the library.

#### **Innovation and Incubation in Research:**

- 1. IQAC shall motivate the students and faculty towards research activities
- 2. Innovation Cell in collaboration of Dr Panjabrao Deshmukh Science and Innovation Activity Centre will launch competitive harvesting of the innovative ideas of the students and offer incentives to the students in the form of Research Fellowship, awards, industry support etc.
- 3. The college will conduct inter collegiate research competitions like Avishkar for the research students.
- 4. Various workshops, training programmes, conferences and seminars will be organized.

#### **Extension and Outreach:**

- 1. More value-added certificate courses shall be planned and introduced.
- 2. NCC and NSS units will focus on improvement of social connectivity and help students to evolve into socially conscious and responsible citizens.
- 3. IQAC proposes to improve the campus infrastructure and ensure its optimum utilization to make it a more environment friendly and a greener campus.
- 4. IQAC shall plan to organize inter-collegiate competitions to facilitate exposure to the students through inter-college participations.
- 5. IQAC proposes to improve the sports facilities on the campus.
- 6. The Career Counselling Cell will be reinforced to intensify career guidance for the students
- 7. The placement cell shall plan and conduct training workshops to equip the students to perform well during the placement process.

#### **Faculty Development**

- 1. Faculty Development Programmes will be organized and teachers will be motivated to participate in FDP from the high repute institutes.
- 2. Introduce soft skill development program for non-teaching staff.
- 3. IQAC propose to conduct Academic & Administrative audit, Energy Audit. Gender audit and environment audit.
- 4. IQAC proposes to strengthen Innovative Pedagogy Development Centre to devise unique teaching methods.

The IQAC shall continuously strive to achieve the goals and objectives of the perspective plan keeping the vision and mission statement of the college in view.

