

# PERSPECTIVE PLAN

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(2017 to 2024)

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The primary aim of IQAC is to develop a system for conscious, consistent, and catalytic action to improve the institution's academic and administrative performance and promote measures for institutional functioning towards quality enhancement through internalization of quality culture and institutionalization of best practices. In pursuance of this aim, the IQAC of SSES Science College, Nagpur is proactively involved in planning, guiding, and monitoring the Quality Assurance (QA) and Quality Enhancement (QE) activities of the institution.

As a post-accreditation measure, the IQAC has prepared a Perspective Plan for progressive growth in academic as well as administrative matters of the college. To prepare this plan, the IQAC has considered the vision and mission documents of the college and the quality benchmarks specified by NAAC in terms of various criteria in the NAAC manual. The IQAC has also taken initiatives to obtain inputs from all stakeholders i.e. the Governing Body, Principal, Faculty members, the Non-teaching staff, Students, Alumni, Parents body, and well-wishers of the college. This perspective plan covers seven years.

## Effective deployment of the Institutional Perspective Plan

Due to changes in the global scenario, technology revolution in the industries, and digitization, the institutions are to be competitive in upgrading themselves to meet the stakeholders' expectations. A series of brainstorming sessions with the stakeholders were conducted to chalk out a strategic plan for 2017-2024 for the institute. Based on the deliberations of the SWOC Analysis a strategic plan (2017-2024) has been developed concerning the following aspects:

### Teaching – Learning Process:

To introduce an online mechanism to collect feedback from all stakeholders on teaching-learning, infrastructure/physical facilities, etc.

To augment resources to motivate faculty to use ICT-based teaching methods.

To engage students in extension activities and outreach programs.

To conduct remedial classes and special coaching for slow learners.

To incorporate various methods of continuous internal evaluation like group discussion, quizzes, debate seminars, etc.

To encourage teachers to guide and mentor students

### Research and Development

To form a Research and Development cell.

- To motivate faculties to get engaged in research projects, and publications in various research journals.
- Career counseling and Placement cell to establish institute-industry interface.

- College to adopt villages to engage and sensitize students to community service.
- NSS, NCC, and other cells/ departments to engage in extension activities.
- Blood donation and free health check-up camps to be organized regularly.
- MoUs with other institutions for collaborative activities.

### **Engagement Internationalization**

The strategic planning document developed served as a monitoring tool for self-appraisal at various levels and also be a guiding document from the Management to Staff level. These plans are deployed through a systematic means by empowering the concerned stakeholders and providing them with the necessary resources to make the plans happen. The accomplishment of those plans is evident through NIRF Ranking, Publications R & D projects various third-party assessments, etc.

### **Effective Functioning of the institutional bodies**

Shri Shivaji Education Society Amravati, chairman & President will interact with the college development committee to frame directive principles and policies, amend and approve them from time to time, and review the functioning of the college. The management provides necessary funding to develop, maintain, and improve the quality of infrastructure, faculty, teaching-learning process, and research. The college committee regularly reports to the Chairman of the society through regular monthly meetings about the regular academic and administrative works that are carried out in the Institution. The principal is the authority for all academic-related activities and regular administrative functions. He raises proposals to provide the necessary resources to achieve the said goals, vision, and mission. Also, he is responsible for framing policies and action plans for achieving the expected outcomes. He is assisted by The Co-ordinators and The Head of Departments (HoDs) in implementing the policies and ensuring the achievement of the goals. Coordinators assist the Principal in executing administrative and policy-based activities related to affiliation, student affairs, planning, R&D, curriculum design, accreditation, and ranking of the Institution.

Hods are given autonomy in carrying out their academic functions. They make decisions related to all academic matters and delegate the work to faculty in a decentralized manner. They are involved in various activities including teaching, student development, faculty development activities, and staff development activities.

### **ACADEMIC ASPECTS**

- **Selection of Qualified Teachers**

Teaching faculty positions will be filled with qualified, eligible candidates appointed following UGC, Maharashtra government, and RTMN University guidelines & policies.

- **Conducting academic audits**

Every academic year, there will be a regular practice of academic audit and assessment of the (Performance Based Appraisal System PBAS and Confidential report).

- **The application of ICT in the teaching and learning process**  
To improve the effectiveness of teaching and learning evaluation, use innovative teaching and learning resources such as OHPs, LCDs, PowerPoint presentations, models, and internet connections. Smart classrooms (Multimedia Room) are to be built, and Fiber Optics FTTH connections are to be established on campus.
- **Development of Linkages**  
To establish links with academic institutions (MOU), academic bodies, and industries to carry out curricula.
- **A Transparent Admissions Procedure**  
To strengthen the well-defined, transparent admission process based on merit, in conjunction with the reservation policy, and will continue to do so in the future.
- **Add-on courses and outdoor visits**  
We have traditional programs such as B.Sc., M.Sc., BCA, MCA, and others where faculty provides basic knowledge as well as the desired level of skills. These programs will be strengthened by the addition of various complementary systems such as certificates, add-on courses, and outdoor visits to supplement study.
- **Guest Lecture Series** To organize guest lectures to widen the gyre learners' knowledge horizons.
- **Parent – Teacher Meetings**  
Meetings with parents will be held regularly to discuss student attendance and performance and to encourage parents to participate in improving their children's academic performance
- **Access to Information**  
The college will continue to provide easy access to daily newspapers, journals, periodicals, and the Internet in the library and reading rooms. We will subscribe to additional journals and periodicals to supplement our reading resources.
- **Academic Calendar**  
The academic, co-curricular, and extra-curricular activities for the academic year will be planned in the academic calendar before the commencement of every year.
- **Assignment of Academic Work**  
Academic, co-curricular, and other related work will be distributed among the staff through the formation of various committees and associations.
- **Organization of Seminars / Workshops / Faculty Development Programmes**  
The college will continue to make efforts to organize seminars/ workshops/ faculty development programs in collaboration with UGC, DST, and others to improve faculty quality.
- **Evaluation of Teachers by Students**  
The college will strengthen the system of teacher evaluation by students by having them fill out a feedback form, which will allow teachers to develop a sense of accountability, confidence, and readiness to receive criticism, as well as openness, introspection, and acceptance of situations to

improve their teaching performance. The review of student evaluations of teachers will be considered, and suggestions for improvement will be made to the teachers.

- **Self-Appraisal of Teachers**

We will strengthen teachers' self-evaluation systems, allowing them to recognize their academic standards and engage them in various activities to help them excel in their academic performance.

- **Regular Meetings**

College Council meetings will be held regularly to collect feedback on teaching and evaluation, as well as to ensure that the lecture plan is followed.

- **Achievement Recognition**

The college will maintain its policy of recognizing and rewarding faculty for their achievements in academics, social, and personal life.

- **Research**

The Research Committee will meet regularly to identify research potential, promote research, and prepare research proposals. The college will make ongoing efforts to secure research grants from funding agencies such as the UGC, DBT, and DST.

## **EXTENSION**

- To strengthen the NSS unit.
- The library facility will be extended to students taking up competitive examinations from the surrounding areas.
- The sports infrastructure will be made available to NGOs & Communities and other organizations.
- A Gymnasium will be made available to residents of the surrounding area.
- The department of NCC will provide physical training to alumni and candidates taking police examinations.
- With the assistance of the NCC department, the college will assist the Police Department in maintaining law and order during festivals.
- Workshops on acting for the Social Association will be organized.
- Various departments will organize a variety of outreach programs.
- A directory of blood donors will be created. Blood will be donated to needy patients at no cost during an emergency.
- A sports and training field will be made available to NGOs, GOs, associations, and other neighboring institutions and organizations, among others.

## **INFRASTRUCTURE**

Ongoing enhancements to infrastructure and learning resources.

- Creation of new infrastructure and learning resources.
- Access to a sufficient average area of infrastructure per student.
- Making the best use of available infrastructure and learning resources.
- Infrastructure and learning resource upkeep.
- A Meeting hall with audio-visual equipment.

- High-quality furnishings
- Faculty rooms with departmental libraries, computers, and internet access.
- Coolers and water purifiers for drinking water.
- An adequate number of toilets for both male and female students and staff.
- Establish a well-equipped gymnasium.
- The solar facility ensured a continuous and uninterrupted flow of electricity.
- A rooftop botanical garden.
- To place Fire Extinguishers

## **ALUMNI**

- To have a registered alumni association.
- To provide access to the library and reading rooms to alumni and to invite Alumni to the social, cultural, and academic events of the college for greater participation.

# Report on Post-Accreditation Initiatives

2017-2024

## S.S.E.S. Amt's Science College Nagpur

The Institution was accredited by the NAAC with a CGPA of 3.51 at 'A+' grade. NAAC, in its last visit, has succinctly opined on the strength of the Institution: "As an institution which has gone through the vicissitudes of time, this college has demonstrated its resilience, durability, utility, and acceptability as a unique institution of higher education. Retaining the time-honored and valued subjects of study, it has simultaneously started programs in emerging areas and provided infrastructure of a substantial nature to provide quality education"

### Post Accreditation Initiatives

The NAAC peer team visited the College on 28-29 April 2017 and examined the infrastructural facility available in the college and other relevant records to make their assessment, recommendations as well as suggestions for further enhancement of quality in curricular and co-curricular programs including various aspects of the functioning of the University.

Based on the recommendations of the NAAC peer team for the second cycle of the Accreditation process in 2017-2018, the college has taken the following initiatives for quality sustenance and quality enhancement in the last 7 years (Post NAAC accreditation period 2017-2024) which are highlighted through action taken by the college on specific recommendation by the NAAC peer team as well as through the seven criteria of NAAC:

#### ♣ Recommendation #1: Introduction of new job-oriented and skill-based subjects to attract students.

##### Accomplishments:

- Certificate programs are offered as Skill-based and add-on programs for enriching the students further with relevant specializations. Under this system, 32-Add-on add-ons and 09- Skill-based Courses are offered to students. During post-accreditation years the College offered a total of 41 Certificate courses to students.
- Two new post-graduation programs are introduced by the Department of Botany and Zoology.

#### ♣ Recommendation #2: Regular appointment against sanctioned teaching and nonteaching posts.

##### Accomplishments:

Full-time teaching and non-teaching staff have been recruited also vacant posts are filled by transferring the staff from other institutions of the society by the order of the Parent Society Governing Body under the transfer policy.

♣ **Recommendation #3: Regular appointment against sanctioned teaching and nonteaching posts.**

**Accomplishments:**

Qualified Adhoc and Clock Hour Basis (CHB) are appointed in each department as per the requirement. We also take the approval of CHB Teachers from R T M Nagpur University, Nagpur.

♣ **Recommendation #4 Strengthening research cell, and extension activities cell.**

**Accomplishments:**

Based on the recommendation of the Peer Team, the college has established an active Research Cell to build the research culture among faculty members in various departments.

- Departments of Physics, Math, Computer Science, Chemistry, Botany and Zoology are recognized as research centers.
- This Memorandum of Understanding was signed with Laxminarayan Innovation Technological University, Nagpur to carry out joint research activities in the fields of their expertise and engage themselves in academic cooperation.
- The College has introduced the **Innovation & Incubation Centre (S2 I2 C)**, which was established in 2022 as a thriving hub for innovation and entrepreneurship. Every year, we engage in a diverse range of activities aimed at fostering awareness about intellectual property (IP) rights, nurturing entrepreneurial spirit, and encouraging groundbreaking ideas. At the Shivaji Science Innovation & Incubation Centre (S2 I2 C), we're not just creating graduates; we're shaping visionary leaders and innovators, and our journey continues to inspire, uplift, and transform students. Under this program, students have designed 125 IPRs on the occasion of the 125<sup>th</sup> birth anniversary of our founder President Dr. Panjabrao Deshmukh.
- Research Scholar Mr. Parimal Gaidhane received a Junior Research Fellowship (JRF) of amount Rs. 43,660/- per month and another Research Scholar Ms. P. M. Lambat received a Senior Research Fellowship (SRF) of Rs. 48,720/- per month under a able guidance of Dr. A. M. Pund, Assistant Professor, Department of Mathematics.

♣ **Recommendation #5 Improvement on Campus Placement through placement cell.**

**Accomplishments:**

- To improve the number of placement of students in National and Multinational Companies the College has signed 28 MOUs with different industries and organizations.
- Students are placed through In-Campus and Off-Campus drives organized by the college or pool campus organized by other colleges.
- Students of the college are regularly guided through the placement cell by organizing career guidance programs from time to time.

- Regular interaction of students with placement cell has been ensured through meetings and the pre-placement training and Soft skill training are conducted regularly.

**Recommendation #6 *Teachers need to avail more minor and major research projects from funding agencies.***

**Accomplishments:**

- Dr. Mrs. Shital S. Deshmukh, Assistant Professor, Department of Zoology, Science College, Nagpur received a grant of Rs. 375000/- from UGC for a minor research project titled “Distribution of leech faunal diversity in freshwater wetland and terrestrial ecosystem of Melghat region”.
- Shahin K Sayyad, Assistant Professor, Department of Physics, Science College, Nagpur Awarded with a Research proposal, sanctioned for funding up to 3 Lakh under the RTMN University Research Project Scheme (URPS) entitled “Device Grade Compositionally engineered lead-free ceramic at morph tropic phase boundary to design superior high-temperature dielectrics for energy storage applications”.

**Recommendation #7 *Utilize the potential of the Alumni Association for the overall development of the college.***

**Accomplishments:**

There is an active alumni association registered with the Charity Commissioner Registration No. MAH1575/12(N) dated 21/12/2012 as per Societies' Registration Act 1860. The Alumni Association organizes social educational programs including interactions with alumni. Alumni association Generates funds for academic and infrastructure development. College Alumni Association President Dr. Avinash Rode renders his services for the medical care of the staff and students. Alumni Association helps in grooming leadership at various levels. Guest lectures are organized to mentor the students for competitive exams. The Alumni Association also provides Financial assistance to economically backward students. Former students of the association have started a scholarship of Rs. 10,000/ per student for three economically backward students at the graduation level, and one student at the postgraduate level. In all, every year seven students are given scholarships amounting to Rs. 70,000/-. Our alumni donated 700000/- for the development of the Institute.

OTHER SUPPORT Workshop on, “career opportunities in Armed forces” Career Guidance Workshop on Compression only life support (COLS) Life Skills and Medical Awareness

Workshop on Cosmetics and Allied Products Entrepreneurship Books Donation to the Geology Department Donation Lecture on Mind, Soul, and Body Health Awareness FINANCIAL

SUPPORT Alumni Association Scholarship for Eight Meritorious and Needy Students 80,000/DONATION RECEIVED Dilip Chintamanrao Karokar 24/11/22 300000/Shyamli Subhash Pande 09/12/22 100000/Parag Rajendra Deshmukh 31/12/22 100000/Ruchika Subhash Pande 31/12/22 200000/Total Donation Received = 700000/



♣ **Recommendation #8** *Institute Industry Interface to be strengthened with internship programs and project work.*

*Accomplishments*

- Internships aim at enabling the students to get practical exposure to the working/functioning of the industry by providing an opportunity to substantiate their classroom learning with practical experience. Every year MCA final-year students are sent to industries for internships and finally, they get absorbed in their respective companies.

♣ **Recommendation #9** *Strengthen Consultancy Services*

*Accomplishments:*

Consultancy is the transfer or application of knowledge to address a client's articulated need

- The Department of Chemistry offers three distinct consultancy services
- Development of **Advanced On-field Water Testing Kits**: These kits are distributed to various institutes for efficient and accurate water quality assessment.
- Development and Installation of **Interactive Apps**: These apps provide detailed information on trees, museums, and heritage sites, benefiting institutes and locations in other countries.
- Manufacture of **Chem Clean Floor Cleaner Concentrate**: The department produces this floor cleaner, with diluted versions distributed to NMC schools and other organizations.
- The Department of Physics provides consultancy services for the **Characterization of FTIR**. A total of 258 students benefitted from this consultancy by characterizing their samples and the college charges Rs. 100/- for each sample characterization.

♣ **Recommendation #10** *Efforts to be made for autonomous status*

*Accomplishments:*

Towards the suggestion of "Efforts to be made for autonomous status," the parent society has planned to form Cluster University as per the National Education Policy (NEP 2020) guidelines.

♣ **Recommendation #11** *Strengthen the students' Laboratory and add relevant new titles and journals in the library.*

*Accomplishments:*

In some of the laboratories state-of-the-art digital interacting board is installed for practical demonstration and teaching effectively. A 10" Dobsonian telescope with a principle parabolic mirror with a focal length of 1250mm which offers a clear gaze at the moon's surface is installed in the Physics Department for the sky-watching program for students.

♣ **Post Accreditation Initiatives #12** *The college has introduced the Programme "Career Katta."*

*Accomplishments:*

The college has introduced the Programme “**Career Katta.**” Career Katta, is a transformative project introduced in collaboration with the Maharashtra State Government Under the aegis of the Centre for Excellence, Career Katta extends its support to students aspiring for success in various competitive exams, including banking, MPSC, and UPSC. Our commitment to excellence is reflected in the guidance provided by seasoned professionals, including esteemed individuals with a background in prestigious services such as the IAS and IFS. But Career Katta is not just about exams; it's about fostering a spirit of entrepreneurship and innovation.

♣ **Post Accreditation Initiatives #13 Infrastructure Augmentation(Construction of new building)**

Accomplishments:

- Post accreditation Infrastructure Augmentation under which a new building is under construction for the students. Presently, the Construction of one additional Academic Block to accommodate the need for increased intake of students in the future is sanctioned for Rs. 4,20,00000/-
- The Computer Department of the College has set up a New Research Centre Laboratory.
- Certificate of Incorporation from Government of India, Ministry of Corporate Affairs SSES Science College Nagpur was incorporated on 16<sup>th</sup> September 2024 under the Company Act 2013 (18 of 2013) and the Company is limited by shares.
- The Institute has classrooms and Seminar Halls equipped with Audio audio-visual facilities. The whole campus has an Internet facility with a dedicated lease line with a 24/7 Continuous power supply through a Solar Power Plant.
- The institute has well-equipped laboratories and a state-of-the-art central instrument lab.
- The facilities for online teaching-learning are provided in each department.
- The College has taken measures to address the need for vigilance and security. The campus is CCTV-enabled to cater to the safety requirements of the well-equipped campus.



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