



॥ विद्या विनयेन शोभते ॥

Janardan Bhagat Shikshan Prasarak Sanstha's

**CHANGU KANA THAKUR**

**Arts, Commerce and Science College, New Panvel  
(Autonomous)**

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## Best Practices

### Best Practice - 1

**1. Title of the Practice: Strengthening the Research Ecosystem: A Holistic Approach**

Institution promotes the research eco-system that enhances research skills, academic performance, personal and professional development. Since inception, institution provides a constructive research ambience with sound academic foundation for both students and teachers to develop independent critical and creative thinking.

**2. Objectives of the Practice:**

- To motivate learners and faculty for quality research
- To identify the need-based research projects
- To integrate research through academic as well as extension cells
- To take research based social initiatives for neighborhood communities
- To strengthen collaborations, consultancy and research mobilization and financial support systems

**3. The Context:**

In designing and implementing the practice, following challenging issues have been addressed:

- Vernacular medium learners and inadequate research skills
- Identification of locational needs and research problems conducive to both learners and faculty
- Effective implementation of Research Policy and Research Ethics Policy
- Strengthening the academic and administrative support

#### **4. Practice:**

Effective implementation of ‘**Research Policy**’ and ‘**Research Ethics Policy**’ ensure and validate an adequate infrastructure, learning resources which eventually supports to pursue the skills, knowledge, and passion in research. Research skills are percolated through Research Centers, Avishkar Research Convention and N.S.S. (Anugoonj).

#### **Procedure**

- Research Committee identifies the research potential and decide the yearly plan of the organization of workshops, seminars, and training sessions.
- Research facilities like instruments, chemicals, laboratories, ICT facility, library and other requirements are provided to quench research needs.
- Research collaborations are with universities, industries and institutes decide the plan of action.
- Recognition and appreciation of the achievements of students and faculty at district, university, state and national level competitions, and completion of projects, research degrees and publications.
- Departments, Research Centers, Aavishkar Research Convention, and N.S.S (Anugoonj) promote research eco-system.

#### **Academic Departments:**

- Academic departments assign research projects to UG and PG levels
- Research Centers and research guides take effort for developing research skills
- Commerce and Science Resource Centers are dedicated for the research skills
- Science Resource Centre with sophisticated analytical instruments provide sample testing facilities to students and faculty of our college as well as from other institutions and industries
- Library services are provided to the learners which includes 24 hours reading room facility, Makers space offer research ambiance
- Academic departments effectively and successfully conducted Ph.D. course work on Research Methodology and Research Ethics and Publication.

#### **Aavishkar Research Convention:**

- The selected projects are sent to District, University, State and National level. During this journey, the students are guided for their research work. Team of research guides take efforts for delivering flawless presentations of the projects.

- Experts are invited for evaluation of projects. National Service Scheme (N.S.S. Unit):
- N.S.S. Unit take research initiative for effective execution of this best practice.
- Faculty and volunteers work together systematically in various forms like formulation of questionnaires and conduct of surveys, etc. for data collection related to the areas like health and hygiene, education, socio-economic disparities, gender and agricultural issues, etc.
- After having analyzed the data and its interpretation the project are presented in the form of research paper.
- These paper are submitted to the N.S.S. Unit for publication in its research journal ‘Anugoonj’ with ISSN 2348-9731.

This practice improves community-oriented research skills and social values.

#### **Financial Assistance for Research**

- Institute is engaged in providing fellowships for research students through RUSA and Seed money.
- Minor research projects funded by NGO’s are allotted to the faculty. For allotment of these funds, the projects are undertaken by the faculty.
- These projects are introduced before the research committee for the provision of funds.
- Financial aids are provided for attending conferences, seminars, workshops and presenting the research papers.

#### **Constraints and Limitations**

- Challenging task to motivate both learners and faculty
- Time constraints for both learners and faculty.
- Limitations to undertake collaborative research journey.
- Lack of academic flexibility.

#### **5. Evidence of Success:**

Institute considers research as an integral part of teaching-learning process. Because of conducive environment, evidences of success in research are multifaceted both at faculty and students side. The summary of evidences of success are as follows:

➤ **Outcomes of Research Centers:**

**Research Centres and their achievements/outcomes**

Sr. No.	Data of Research Centres	Numbers
1	Research Centres	09
2	Research Guides	15
3	Candidates completed Ph.D. programmes	13
4	Scholars pursuing Ph.D. Programmes	89

➤ **Outcome of Research of Faculty**

Particulars		Numbers
Books Authored		189
Research papers published in UGC CARE lists		142
Patents	Granted	03
	Published	06
	Filed	01
Institutional Research Projects		18

➤ **Outcome of Research of Students**

Sr. No.	Particulars	Numbers	
1	Research Projects	Completed	37
		In progress	15

➤ **Initiative to inculcate research elements among students and its outcome:**

**Aavishkar Research Convention**

Participations	Numbers
District Level	48
University Level	20
State Level	01

Achievements	Numbers
• Bronze Medal	02
• Overall championship at District Level	

➤ **Innovative Practice of our N.S.S. Unit and its outcomes:**

Sr. No	Anugoonj-Community Oriented journal of N.S.S. Unit	Numbers/Outcome
1	Number of Projects	24

**Funds for research Initiatives:**

- Minor research, industry and projects under seed money are sanctioned by RUSA as the part of research initiatives
- Research fellowships are given to the faculty under RUSA for Ph.D. degree

**6. Problems Encountered and Resource Required**

**Problems Encountered**

- Difficulties in promoting research aptitude
- Engagements in academic obligations and different pursuits

**Resource Required**

- Devoted and research skill-oriented faculty
- Strengthening research eco-system
- Strengthening financial support for the promotion of research



II विद्या विनयेन शोभते II

Janardan Bhagat Shikshan Prasarak Sanstha's

## CHANGU KANA THAKUR

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### Best Practices

#### Best Practice - 2

**1. Title of the Practice: Green Initiatives towards Environmental Consciousness**

**2. Objectives of the Practice:**

The comprehensive and outcome-oriented plan of the institute validates the effective organization of green practices. Since inception, our institution has created its ecosystem for socially and environmentally committed institution to spread environmental culture amongst its stakeholders. To achieve this, the college has commenced special projects like water conservation, optimization of energy efficiency, waste management, use of renewable energy, Effluent Treatment Plant, construction of vermicomposting, Bio-fertilizer units and installation of Biogas plant. These Green campus initiatives enabled our college students and teachers to become environmentally educated and responsible. Moreover, college has juxtaposed green issues into academics as well as extension activities to inject environmental consciousness. Even institution has established functional MOUs with GO's, NGO's and other social organizations to reach out these goals set out.

**This practice has following set of objectives:**

- To create awareness and promotion about environment friendly literacy amongst all stakeholders
- To integrate greening issues and environmental consciousness in curriculum
- To promote active collaborations
- To organize extension activities in adopted villages and neighborhood community
- To motivate the learners and faculty to undertake research projects

### 3. The Context:

In designing and implementing the practice following challenging issues have been addressed:

- Preparation of Green activities by following IQAC guidelines
- The college every year, promotes an environment - friendly activities by planning and its execution
- Identification of need-based research projects for campus as well as adopted areas
- Provision of funds

### 4. Practice:

#### Procedure

Institute finalizes the activity calendar which comprises the green practices as per the locational needs. In the beginning of every academic year the IQAC convene the meetings of Head/ In-charge of departments, and Chairpersons of different Committees and Associations to discuss and plan about green practices and its execution with efficient manner. Precisely the plan of action of the college is as follows;

- Identification of Green practices and new initiatives towards green
- Integration of greening issues in academics as well as extension cells to extend its scope
- Maintenance of well fenced Botanical Garden, display boards like **Keep the campus clean, Save Electricity, and Save Water** shows constructive step towards environment culture
- Organization of seminars, workshops and grooming sessions adds value of the environment and support the main cause of an institution
- Committees and association organize green practices as per the calendar to promote sustainable and eco-friendly ethics
- Academic has been integrated with ethics and set of skills about environment protection and sustainability

#### Constraints and Limitations:

- Complex task to motivate the learners regarding green issues
- Disinterestedness about environmental harms
- Lack of expertise and human power.

- Designing of specialized programs integrated with green issues
- Difficult to devote extra time in present complex teaching, learning and evaluation system

#### 5. Evidence of Success:

Institutes efforts have been percolated through:

##### Extension Activities:

- **Tree Plantation:** NSS, NCC and DLLE to organize a regular tree plantation drives in our campus, nearby areas as well as in adopted villages. N.S.S. Unit of the college organizes tree plantation drive to protect environment and create an awareness amongst its volunteers.
- In addition, N.S.S. volunteers undertake survey-based research projects on green issues and their research projects are published in college level journal called **Anugonj: community oriented journal (ISSN 2348-9731)**.
- Distribution of recycled note books to poor students, Swachha Bharat Abhiyan, rallies against use of plastic, check dam construction and other various green and sustainable practices raise awareness about environmental culture.

#### Special Projects implemented by the college towards Environmental Consciousness

- **Recycling of Waste Papers**
  - ◆ Use of minimum papers and do its recycling and encourage for electronic media
- **Energy Conservation and Solar Panels**
  - ◆ Replacement of tungsten bulbs and incandesce with LED bulbs and tubes
  - ◆ Installation of the Solar Unit with total **462** panels generating electric power of 150 KW at 36.72 V
- **Effluent Treatment Plant**
  - ◆ Chemical and solvents used in the science laboratories are directly sent to drainage system.
  - ◆ Effluent Treatment Plant regulates adverse effects of effluents and helps in the environment conservation.
  - ◆ Efficiency of the unit is 95% and collected effluent is reused for gardening



- **Vermicomposting Unit:**
  - ◆ Constructed Vermicomposting Unit of three Vermicomposting beds.
  - ◆ All organic waste generated in campus is used as a raw material for the process
  - ◆ The composts from the units are used for plants and the botanical garden
- **Water Harvesting**
  - ◆ The college motivates to use minimum water and also has the water harvesting system and constructed water well at botanical garden.
- **Biogas Plant**
  - ◆ The waste generated from canteen on daily basis is used for Biogas production
  - ◆ Installation of Biogas Plant reduces air pollution

### **Environmental Policy**

- **Environmental Policy** ensure effective implementation of green practices in the college as well as in neighborhood community. This policy validates campus awareness through the activities like ban on use of plastics, restricted entry for automobile, and no vehicle day. In addition, it has instructed to have campus cleaning twice in a day, tobacco free campus, display boards like save electricity, save water, keep the campus clean, use of solar energy. Power efficient equipment's, RO-Aqua guard drinking water facility and maximum use of ICT to reduce the use of pages and commencement of green research projects for students and faculty. These practices have been monitored and even it validates integration of curricula with green issues, an active participation of extension cells, campus initiatives like maintenance of well -fenced botanical garden, organization of co-curricular activities to promote environment consciousness.
- **Quality Audits**

Institute has undertaken quality audits like Green audit, Energy and Environment Audit. Audit has validated green initiatives and completed special projects

## **6. Problems Encountered and Resources Required**

### **Problems Encountered**

- It is complex to identify environmental needs of the locality.
- Hectic schedule of the teaching learning process

- Challenging to sensitize learners regarding green issues and adjust their time management.

### **Resources Required**

- Training for faculty
- Demarcated provision of funds
- Co-operation from officials of Grampanchyat, Tehsil and people of society at large.