



DEPARTMENT OF BIOTECHNOLOGY
Ministry of Science & Technology

STAR College Scheme & Status:

The DBT launched STAR college scheme for strengthening critical thinking and ‘hands-on’ experimental work, interdisciplinary and research activities at UG level.

- **In 2009 four departments** (Chemistry, Biotechnology, Biochemistry, Microbiology) **supported** under STAR college **Scheme**.
- **In 2013 four departments** (Chemistry, Biotechnology, Biochemistry, Microbiology) **upgraded** to under STAR college **Status**.
- **In 2015 four other departments** (Industrial Chemistry, Mathematics, Physics, Biology) **supported** under STAR college **Scheme**.
- Impact of STAR college scheme & status:
 - Student’s Minor Research Project (Individual-Group) = 500+
 - Industrial Visits = 100+
 - Invited Guest Lectures = 200+
 - Workshop/Hand-on Training/Seminar = 50+
 - Summer schools = 5+
 - New practical introduced = 150+
 - Short Term Training Course = 10+
 - Alumni Talks = 50+
 - Generation of Laboratory Manual & Handbook = 20+
 - Research publication of students = 20+
 - Library & Books purchased = 500+
 - Virtual labs = 20+
 - e-Content collection (Including e-books, power point presentations, Video lectures etc.) = 1000+



Gujarat Pollution Control Board (GPCB), Gandhinagar

Schedule-I Environment Auditor

Environmental Audit & Consultancy Cell was established at Shree Manibhai Virani and Smt. Navalben Virani Science College, Rajkot in year-2011.

- It has now completed **seven years**.
- **Total number of industries audited = 50+**.
- Environmental Audit & Consultancy Cell consists of following five members who have been duly approved by Gujarat Pollution Control Board (GPCB), Gandhinagar.

1.	Dr. S. A. Puranik	Director, Environmental Cell.
2.	Er. Ravi S. Tank	Head of Department of Industrial Chemistry, Shree M. & N. Virani Science College
3.	Dr. Nilkanth J. Faldu	HOD, Department of Microbiology, Shree M. & N. Virani Science College
4.	Prof. Viral H. Karia	Asst. Professor, Department of Industrial Chemistry, Shree M. & N. Virani Science College
5.	Prof. Hemant Sonkusare	HOD, Department of Civil Engineering, Atmiya Institute of Technology & Science.

Environmental Audit and Consultancy Cell is having the State of the Art – Environmental testing laboratory.

All the following facilities are available for testing of

- (i) Effluent samples for BOD, COD, T.S.S., Metal contents, Chlorides, Fluorides etc.
- (ii) Ambient Air Quality and stack monitoring of air samples can be done effectively.
- (iii) Hazardous Solid Waste samples also can be analyzed appropriately.



UGC Autonomy

The UGC from 2012-2013 for 6 years, vide its letter No. F-22-1/2012(AC) dated 16-01-2013.

In 2016 the college implemented Autonomy with immediate effect after receiving State and University permission in 2016.

Objectives for Autonomous College

To achieve excellence in our higher education system an autonomous college has the freedom as follows:

- **Framing Curriculum & Syllabus:** to determine and prescribe its own courses of study and syllabi, and restructure and redesign the courses to suit local needs.
- **Evaluation & Assessment:** Evolve methods of assessment of students performance.
- **Declaration of Result:** Conduct exams and notify results.
- **Introduction of New Programme:** To achieve higher standards and greater creativity new programmes can be introduced.
- **Instituting & awarding Certificate, Diploma, Advanced Diploma courses & certificate** shall be issued under the seal of the college.
- **Besides others:** Promote healthy practices such as community service, extension activities, projects for the benefit of the society at large, neighbourhood programs etc.

Existing programs offered by the college under the purview of AUTONOMY

A. UG Programmes

1. B. Sc. Chemistry
2. B. Sc. Microbiology
3. B. Sc. Biotechnology
4. B. Sc. Industrial Chemistry
5. B. Sc. Mathematics
6. B. Sc. Biochemistry
7. B. Sc. Information Technology
8. Bachelor of Computer Application

B.UGC Sponsored B.Voc. Programs

1. B.Voc. Chemical Technology
2. B.Voc. Pharmaceutical Analysis and Quality Assurance
3. B. Voc. Radiation & Imaging Technology
4. B.Voc. Advance Computer Technology
5. B.Voc. Medical Laboratory & Molecular Diagnostic Technology

C. PG Programmes

1. M. Sc. Pharmaceutical Organic Chemistry
2. M.Sc. Information Technology & CA
3. M. Sc. Microbiology
4. M. Sc. Biotechnology
5. M. Sc. Industrial Chemistry

D. M.Voc. Programmes

1. Chemical Technology
2. Pharmaceutical Analysis & Quality Assurance

Introduction of New programmes under autonomy from the academic year 2016-2017 & onwards

1. M. Sc. Mathematics
 - M.Sc. (Integrated) Programmes:
 1. M.Sc. Information Technology and Computer Application
 2. M. Sc. Microbiology
 3. M. Sc. Biotechnology
 4. M. Sc. Chemistry
 5. M. Sc. Mathematics

UGC Sponsored Career Oriented Programmes

1. Plant Tissue Culture & Molecular Technology(Certificate)
2. Environmental Auditing and Monitoring(Certificate)
3. Bioinformatics (Certificate & Diploma)
4. Medical Laboratory Technology(Certificate)



GAAA KCG, Government of Gujarat (2013)

This is to certify that Shri M & N Virani Science College Rajkot, Gujarat is awarded Rank I by obtaining the **score 976 out of 1000** based on the Academic and Administrative Audit performed by members of the Peer Team under the AAA initiative of the Knowledge Consortium of Gujarat (KCG), Department of Education, Government of Gujarat.



CPE Scheme under UGC's XI Plan (2010):

UGC recognized the Institution as “College with Potential for Excellence” (CPE)

- Phase-I (for 3 Years) in 2010 to 2013.
- Phase-II (for 5 years) in 2014 to 2019.

It is the **first college** under Saurashtra University and Saurashtra region of Gujarat State to get this status of CPE by UGC.

More than **5000+ students** (UG & PG) and faculties of the college have been benefitted.

Due to CPE support the college has enriched its **Central Instrumentation Laboratory** with the highly **sophisticated instruments** to conduct high end research.

Impact of CPE:

- Bridge course/Modular courses conducted = 20+
- Spoken and written English skill training program = 25+
- Workshops/Hands-on training/seminar = 100+
- Industrial visits / Educational Tours = 100+
- ICT enabled pedagogy = 20+
- Certificate courses = 5+
- Guest talks = 50+
- Research projects for UG & PG students (Individual/Group) = 100+
- Student Publication = 10+
- Community services/Outreach programs /Extension activities= 50+
- Faculty Development/Enrichment Programs = 40+
- Career guidance/Entrepreneurship Development program = 15+
- Competitive exam preparation coaching = 15+



Nodal Centre of GSBTM for Capacity Building

In 2011 the college received recognition as GSBTM nodal centre for capacity building.

- 28 workshops conducted.
- 1000+ students benefitted.

Successful Students:

- JNU-CEEB = 40+
- MSU = 30+
- IIT-JAM = 10+
- GSAUCA = 3
- TIFR = 10+
- ICAR = 10+
- IISER Pune = 1
- CUG = 10+

Goal:

- To create world class manpower in Biotechnology & Life science.
- To introduce & motivate the undergraduate student to crack various national level competitive examination.
- Purpose was to add logical understanding to students make them able to understand that how to approach & solve the question quickly in exam.
- Introduce the student with essential and critical elements for entrance exam.
- Guide the students to fill the application form for the entrance examination.
- Academic motivation for higher education.

Context:

- Most of the premium institutes of research, education and profession in field of Biotechnology Life Science have stringent norms or examinations, designed to access and evaluate dexterity and the grit of the student.
- Unfortunately, not many students from the region have been able to prove their ability. So, it is the need to prepare the students of Gujarat for National Competitive examinations for postgraduate studies by providing crystal concept and knowledge by the subject expertise, so that they could pursue their higher education.

Practice:

- Duration of workshop is twelve days.
- The schedule for each day is 12 hours from 8:00 am morning to 8:00 pm night daily.
- Top ten students of different colleges from life science stream is eligible for this workshop.
- The number of topic is divided according to subject & their weightage in the examination.
- Basically it focuses on the core subject of exam along with few motivational lectures.
- The core subject is mainly Biology, Physics, Chemistry and Mathematics.
- Highly qualified and experienced teachers from home institution as well as from different part of Gujarat are invited for the expert talk on their topic.
- For motivation college invites renowned motivational speaker, who deliver their talk on time management, quicker solving, tips for study which proof fruitful outcome for the students in the workshop.
- To complete the course students must attend and complete the all classes and mock test.



DIST-FIST (2012):

Universities are cradles of innovation and knowledge creation. Research in universities has three-tier effects concerned with quality of under-graduate & postgraduate education and value of research. They are the source of generating high caliber manpower and repositories of national intellectual wealth in Science & Technology (S&T) sector, which if channelized properly, may lead to socioeconomic development.

In the emerging global scenario, India can be an ideal destination due to its cost effectiveness and availability of knowledge base. It must also aim for a permanent position in the field of Science & Technology. Considering the present status of the S&T sector in the universities and related academic institutions who are in dire need for strengthening the existing S&T infrastructure support with adequate funding and associated flexibility, Government of India in the year 2000 announced a major new initiative titled "Fund for Improvement of S&T infrastructure in universities & higher educational institutions (FIST)" to rebuild the Science & Technology infrastructure in the country.

and training; iv) trained faculty in the areas of skill development; and v) Entrepreneurship; etc.

Work for coordination between the higher education system and industry to become a Centre of Excellence for skill development in specialized areas.

Network with other such centres and universities and colleges imparting vocational education under the scheme of Community Colleges and B.Voc degree programme in their region and coordinate with them for targeted development of skill oriented education.

Undertake R&D in the areas related to skill education & development, entrepreneurship, employability, labour market trends etc. at the post-graduate and research level.

Act as finishing school by providing supplementary modular training programmes so that a learner, irrespective of his/her training background, is made job ready with necessary work skills (soft, communication, ICT skills etc) and fill the gaps in the domain skills measured against QPs/NOSs.

Provide for Recognition of Prior Learning (RPL) framework for job roles at NSQF Level 4 onwards by conducting assessment and certification with respective Sector Skill Councils (SSCs) / Directorate General of Employment and Training (DGET).

Maintain 'Labour Market Information' for respective regions in coordination with other government agencies and industry associations.

Develop and aggregate curriculum, content and learning materials for skills development in different sectors.

Target / Eligibility

Applications may be submitted under following four Categories:

Category – I: UGC approved Community Colleges and/or B.Voc. degree conducting institutions with UGC assistance.

Category – II: All the Central universities.

Category – III: Other universities and colleges recognized u/s 2(f) and 12(B) of the UGC Act, 1956, eligible to receive general development assistance from UGC and which have either been accredited by the NAAC / NBA or have applied for accreditation.

Category – IV: Self financing institutions not eligible to receive general development assistance from UGC and which have either been accredited by the NAAC / NBA or have applied for accreditation. Such institutions will not receive any assistance from UGC. However, they will abide by the UGC guidelines as amended from time to time.



Ministry of Human Resource Development
Government of India

National Institutional Ranking Framework (NIRF)

1st Rank in Gujarat & 37th Rank in All India by NIRF-2017, MHRD, New Delhi

- The National Institutional Ranking Framework (NIRF) was approved by the MHRD and launched by Honourable Minister of Human Resource Development on 29th September 2015.
- This framework outlines a methodology to rank institutions across the country. The methodology draws from the overall recommendations broad understanding arrived at by a Core Committee set up by MHRD, to identify the broad parameters for ranking various universities and institutions. The parameters broadly cover “Teaching, Learning and Resources,” “Research and Professional Practices,” “Graduation Outcomes,” “Outreach and Inclusivity,” and “Perception”.
- Participation in India Rankings from 2016 to 2023 and the institute is ranked within top 200 rank bands.



The Gujarat State Institutional Rating Framework (GSIRF) is a pioneering attempt towards creating world class institutions in Gujarat by the Knowledge Consortium of Gujarat (KCG) in partnership with the Indian Centre for Academic Rankings & Excellence (ICARE), India's most trusted institution Ranking & Rating Authority. Using a highly credible & transparent framework wholly based on objective data, ICARE has been tasked with the responsibility to Audit, Assess & Rate Institutions with a clear focus on outcome of the institutions so as to help academic leaders identify areas of improvements, bridge the gaps and achieve excellence Regionally, Nationally and Globally.

A unique initiative of Government of Gujarat with an objective to facilitate awareness among the colleges about the processes and systems that can ensure quality enhancement and realization of goals set in higher education. AAA is a systematic effort at community driven, continuous, internal evaluation and mentoring of the Institutions. It works in synchronization with NAAC Performance Indicators.

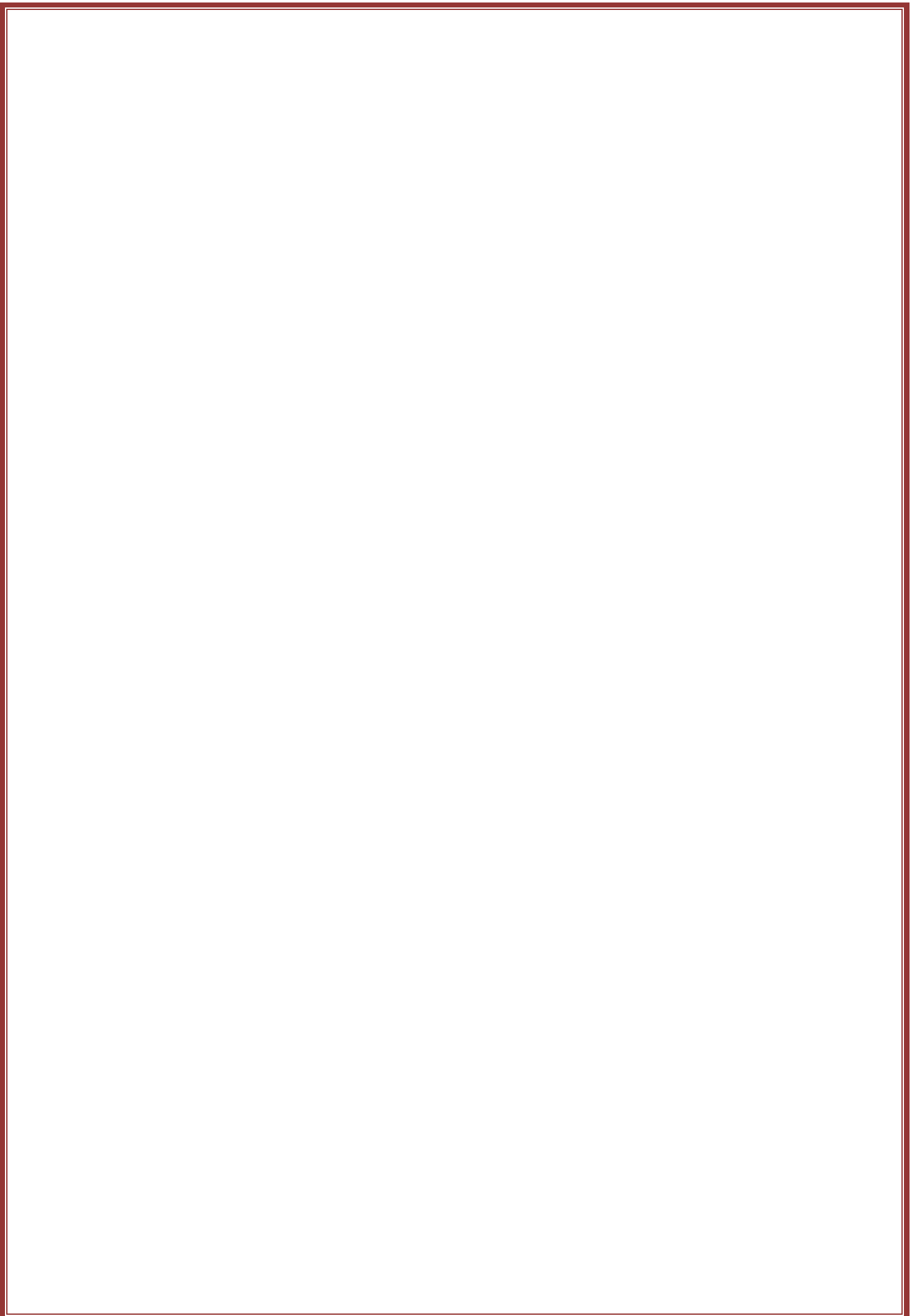
- Participation in GSIRT from 2019 to 2022 and the institute is a top ranked institute as a **Star** Institution in the category of '**Colleges**' on the basis of comprehensive performance metrics as set out in the **Gujarat State Institutional Ratings Framework (GSIRF)**

Shri M V & Smt N V Virani Science College



as a **5 Star** Institution in the category of
'Colleges' on the basis of comprehensive performance metrics as set out in the
Gujarat State Institutional Ratings Framework (GSIRF)

on the 28th February 2023.





NAAC

Accreditation by NAAC

- 1st cycle in 2007 'A' Grade with 86.30%
- 2nd cycle in 2014 'A' Grade with CGPA 3.28

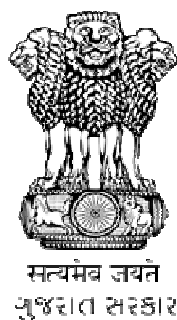
India has one of the largest and diverse education systems in the world.

Consequently, the National Assessment and Accreditation Council (NAAC) was established in 1994 as an autonomous institution of the University Grants Commission (UGC) with its Head Quarter in Bengaluru.

The mandate of NAAC as reflected in its vision statement is in making quality assurance an integral part of the functioning of Higher Education Institutions (HEIs).

The seven Criteria to serve as basis for assessment of HEIs are:

1. Curricular Aspects
2. Teaching-Learning and Evaluation
3. Research, Innovations and Extension
4. Infrastructure and Learning Resources
5. Student Support and Progression
6. Governance, Leadership and Management
7. Institutional Values and Best Practices



Finishing School

Knowledge Consortium of Gujarat, Government of Gujarat has initiated the **Finishing School Programme** in more than 87 government and 100 grant-in-aid colleges to enhance employability skills of students.

The 100 hour training comprises of 4 well-designed modules namely,

- Component 1: Life Skills (25 Hrs),
- Component 2: Employability Skills (25 Hrs),
- Component 3: English Functional Skills (25 Hrs), and
- Component 4: English Functional Skills (25 Hrs).

Shree M. & N. Virani Science College is a **top-contributor** of this initiative, for the benefit of Final Year of B.Sc. Programme Students.

Till now, **3 batches comprising of more than 120 students**, have undergone rigorous yet refreshing training of **over 225 hours** by empanelled trainers on the campus.



सत्यमेव जयते
गुजरात सरकार

Student Startup & Innovation Policy (SSIP)

Government of Gujarat has developed Student Startup & Innovation Policy for providing assistance to Startups & Innovations. Under this scheme, any innovative idea will be eligible and education institutions will provide institution to support.

In it a first-of-its-kind policy that creates a much-needed Innovation and Incubation Support for students of the State.

Shree M. & N. Virani Science College is a proud partner & contributor to this policy, and will continue to support innovative & enthusiastic students of the region.

Till now, the institute have sensitized **more than 500 students** under this initiative through various activities like expert talks, poster presentation competition, international science fair, etc.

What is SSIP?

Student Startup & Innovation Policy is a landmark Policy developed & implemented by Government Of Gujarat Providing Assistance To Startups/ Innovation.

Who can be benefitted?

Any Individual or Group Having Innovative Idea/ Concept Will Be Eligible to get benefit through Institution Approved By Committee.

What type of support is provided?

Innovator can get hand-holding in the form of mentoring, incubation, proof of concept & prototyping support, patent filing support, and documentation support.