# GOVERNMENT SCIENCE COLLEGE
# GANDHINAGAR

*A*

*Report*

*on*

## "Students Start-Up and Innovation Policy 2.0"

*Academic Year:* **2023-2024**

*Principal:* **Dr. M. G. Bhatt**

*Co-ordinator:* **Dr. P. U. Sharma (Innovation Club)**

**Prof. P. D. Chaudhary (SSIP)**

*Prepared by:*

**Students Start-Up and Innovation Policy Cell,**

**Government Science College, Gandhinagar**

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# 1. Introduction

The Government of Gujarat is really taking some bold steps to help those with great ideas and dreams of starting their own businesses. They're creating an environment that's friendly to new ventures and projects, making it easier for people to turn their innovative ideas into reality. This approach shows just how committed they are to encouraging innovation and pushing forward with technology.

Their policy is inclusive, which means it's open to anyone with a good idea, whether you're working on your own or part of a bigger institution like a university or a research centre. It's great to see that they're making sure everyone, from individual dreamers to larger organizations, has access to the support and guidance they need to succeed.

Start-ups are a big deal, especially in the tech world. They're the ones driving all the cool new advances by thinking outside the box and moving quickly. With their focus on cutting-edge tech and new ways of doing business, start-ups are really shaping the future of industries and economies.

The Student Start-up and Innovation Policy (SSIP) 1.0, which kicked off in 2017, was a game-changer for young innovators in Gujarat. It set aside a good chunk of money over five years to help students at state universities and technical institutes get their own businesses off the ground. By concentrating on tech-driven innovations, SSIP 1.0 tapped into the huge potential of young people and set Gujarat on the path to becoming a real hotbed of innovation and entrepreneurship.

Now, with SSIP 2.0, they're taking things even further. They want to reach out to millions of students across the state, making sure that even more young people have the chance to dive into the world of entrepreneurship and innovation. It's a big goal, but it shows just how serious the government is about giving everyone a fair shot at success.

In a nutshell, the Government of Gujarat is really going all out to support start-ups and innovation through initiatives like SSIP. It's clear they're thinking ahead when it comes to economic growth and giving people the tools they need to thrive. By creating an environment where entrepreneurship can flourish and giving targeted help to new innovators, Gujarat is on track to become a real leader in innovation and a role model for other places looking to do the same.

With the Government of Gujarat's support and our college's commitment to nurturing entrepreneurship, our students have access to a wealth of opportunities to shape their futures and contribute to the growth and prosperity of our state. Together, we're building a vibrant ecosystem that empowers the next generation of innovators and leaders.

## 2. Definition

1. **Innovation:** Conceptually, any innovation implies substantial improvement in the ways of doing things, producing goods or providing services. It may involve a new use of an existing resource or producing or delivering existing goods or services through new methods or new instruments/materials.

2. **Start-up:** Start-up is an entity that develops a business model based on either product innovation or service innovation and makes it scalable and replicable to be self-reliant. Start-up may also be an entity that satisfies the requirements of the Department of Industrial Policy and Promotion (DIPP), Government of India.

3. **Proof-of-concept (POC) stage:** Proof-of-concept is the stage where the innovator/startup demonstrates a fundamental functioning demonstration of the idea/hypothesis/innovation.

4. **Prototype-stage:** A prototype-stage is a pre-production/pre-launch stage where the innovator /startup team has developed a basic minimum viable product (MVP) with most key features desired in the final product.

5. **Minimum viable product (MVP)** is a product with just enough features to gather validated learning about the product and its continued development.

6. **Start-up India Action Plan:** The Government of India has announced the 'Startup India, Stand-up India' initiative for creating a conducive environment for startups in India. Different ministries of the central government have initiated several activities for this purpose, and the government has also published an action plan for the same.

7. **Student Start-up:** Student Startup is any student-led innovation-based startup that has been founded by the efforts of one or more student(s) and/or alumni (not more than 5 years from graduation), from any university/educational institute in the state, with or without the help of faculty guides and external support agents. Recently, AICTE has developed a national roadmap for student startup support system.

8. **Academic/educational institute:** Any government/grant-in-aid/self-financed institute/college in the state affiliated to a recognised university of Gujarat.

9. **Preincubation:** Preincubation makes up early-stage support systems for the innovation & startup value chain that comprises an enabling environment to trigger creative ideas, hand-holding ideas at conceptualisation stage, extending basic facility to test the ideas and validate its early users, basic common working infrastructures, and access to existing resources before the innovation reaches an enterprise stage.

10. **Incubator:** Incubator is an organisation established to accelerate the growth of startups, through an array of business support, resources, mentorship, networking, and other common services such as physical space, capital, and coaching.

11. **Technology Business Incubator:** A Technology Business Incubator (TBI) is an incubator established to support technology-driven startups generally supported by the National Science & Technology Entrepreneurship Development Board (NSTEDB), Department of Science & Technology (DST), Government of India.

12. **Atal Innovation Mission (AIM):** The Atal Innovation Mission (AIM) is Government of India's endeavour to promote a culture of innovation and entrepreneurship. Its objective is to serve as a platform for promotion of world-class Innovation Hubs, Grand Challenges, Startup businesses and other self-employment activities, particularly in technology driven areas. AIM is established under the NITI Aayog.

13. **Tinkering Lab/Fab Lab/ Innovation Studio:** A Tinkering Lab/Fab Lab is a combination of experimental research and specialisation, where students may tinker with emerging technology and fabricate and create new product/prototypes.

14. **Accelerators:** An accelerator is like an incubator except, as the name suggests, a startup accelerator fosters rapid growth of the startups it incubates. Usually accelerators package mentorship, access to technology, office space and access to an innovative community into a relatively shorter timeline for faster growth.

15. **Angel Investors:** An angel investor is a person who provides financial support by investing capital-typically, a relatively smaller seed capital - in a startup.

16. **Venture Capital:** Venture Capital (VC) is a type of funding that originates from venture capital firms that specialise in building high risk financial portfolios. Typically, such firms provide growth-level funding to established startups against equity as well as create value for startups by providing access to their networks for employees, clients, products, or services of the startup.

3. **About Policy**
   - Policy Period

     >The period of the Policy will be from January 11, 2022, to March 31, 2027.

- **Eligibility Criteria for Educational Institutions**

To be eligible to take benefit of the Policy, an institute shall be.

I. Based in Gujarat.

II. A Government/Grant-in-Aid institute/Private institute affiliated to recognized university.

III. On record to have demonstrated concrete efforts related to innovation and entrepreneurship in the past few years or having strong commitment to participate towards the goals of the Policy.

- **Eligibility Criteria for Educational Beneficiaries**

Any person up to the age of 35 years, who is,

i. A school student of Foundational / Preparatory / Middle / Secondary level (Up to Class 12)

ii. A Diploma / Vocational / Undergraduate / Postgraduate / Doctoral student or an alumna / alumnus

iii. Any dropout from school / institute / university.

The Policy Implementation Committee (PIC) shall evaluate each application based on the criteria / merit and the suitable ones shall be selected as grantee under the Policy. The criteria / merit shall include parameters like active student participation (ASP), research and innovation related activities carried out in past few years, action plan and budget plan and other as decided by the PIC.

The Student Innovation Policy mandates interventions at three levels: a) State-level (strategy and planning) b) University-level (contextual policy implementation and handholding) c) Institution-level (grassroots level deployment and end-to-end support of ideas and innovations).

- **Support to individual Beneficiaries.**

| Beneficiary | Support |
|---|---|
| **All Beneficiaries** | • **Exposure to Tinkering Lab, Innovation Lab, Incubation Centres**<br>• **Large scale sensitization, events, and programs for developing Scientific Mindset**<br>• **Collective/Community level support system and activities**<br>• **Capacity Building** |
| **Class 9 to Class 12** | • **Maximum INR 20,000 per PoC/Prototype/Innovation** |
| **Higher and Technical Education** | • **Maximum INR 2.50 Lakh per PoC/Prototype/Innovation**<br>• **IP Support up to 100% of expenses** |

## 4. IPR Support

Under the Policy, IPR (Intellectual property rights) strategies for academia with a special focus, provide various incentives including financial grants to support innovators.

| Type of IPR | Supportive Provisioned (Up to) |
|---|---|
| Patents | INR 75,000 for Domestic, |

| | |
|---|---|
| | INR 1.5 Lakh for other countries |
| Copyrights | INR 8,000 |
| Trademarks | INR 12,500 |
| International Registration of Marks | INR 50,000 |
| Industrial Design | INR 9,000 |
| Plant Variety Registry | INR 33,000 |
| Semiconductor Integrated Circuits Layout-Design Registry (SICLDR) | INR 15,000 |

A State-level IP Facilitation Centre (IPFC) will function at i-Hub, which will be responsible for assisting Grantees and Beneficiaries in IP related activities. i-Hub will maintain a robust IP support system for innovators and Start-ups. The necessary guidelines for IP support will be issued by the State PMU based on the recommendation of the PIC from time to time. The IP guideline of the Education Department of the State will be effectively implemented across academia under this policy.

## 5. Goals of SSIP 2.0

Key goals of SSIP 2.0 are as follow,

- Empower all state universities to set-up and implement a comprehensive agenda of innovation and pre-incubation.

- Aim to create an environment that converts at least 1% of graduates into job creators through innovation and allied means.

- Support at least 1,000 student-led innovations per year and aim to file 1000 patents per year from state universities.

- Employ 500 student start-ups and upscale in next 5 years.

- Empower universities and educational institutions to strengthen innovation and pre-incubation support systems within.

- Create incentives, rewards, appreciation and benchmarks for innovation and student start-ups and related efforts at all levels.

- Build capacity for at least 200 educational institutions in the state over the next five years, to provide strong pre-incubation support for student/alumni start-ups and innovations.

- Undertake strategic interventions to enable all state universities to develop a full-fledged pre-incubation ecosystem in the next 5 years.

Ensure that innovation processes systematically link academia, society and SMEs so that students and teachers can solve their challenges and create more entrepreneurial opportunities.

- **Role of Stake Holders**
  - **Government:** Mandate, support, integrate and scale.
  - **Academic Stakeholders:** Deploy agenda within, quality assurance, create end-to-end support system and codification.
  - **Non-academic, industry and other ecosystem stakeholders:** Mentoring, market access and domain knowledge.

## 6. College Activities during 2023/24

A. Basic Robotics & DIY Training Workshop 2.0

B. Understanding Startups and Innovation

C. Application of Mathematics on Real world problem

## ➢ Basic Robotics & DIY Training Workshop 2.0



Our college recently hosted a transformative event, the "Robotics Workshop 2.0 using DIY Kits Training," in collaboration with the Commissionerate of Higher Education, Government of Gujarat. Held at the prestigious Government Science College, Gandhinagar, from July 6th to 8th, 2023, the workshop attracted 40 enthusiastic students from diverse academic backgrounds.

The primary objective of the program was to provide participants with hands-on experience in assembling and operating DIY (Do It Yourself) robotics kits. By engaging in practical exercises, students gained invaluable insights into the intricate world of electronics and electrical engineering, fostering a deeper understanding of theoretical concepts.

Throughout the workshop, expert-led sessions were meticulously designed to offer comprehensive guidance and support to the attendees. Seasoned professionals and faculty members provided step-by-step instructions, imparting practical skills and theoretical knowledge essential for navigating the realm of robotics.

At the helm of this transformative initiative was Dr. M.G. Bhatt, the esteemed principal of our institution. Dr. M.G. Bhatt's unwavering commitment and leadership were instrumental in orchestrating the success of the event. His vision for empowering students through experiential learning and innovation resonated throughout the workshop, inspiring participants to explore new horizons and push the boundaries of their potential.

Under Dr. M. G. Bhatt's guidance, the workshop transcended its role as a mere educational endeavour; it became a platform for fostering creativity, collaboration, and critical thinking among the students. By encouraging active participation and fostering a supportive learning environment, Dr. M. G. Bhatt ensured that every participant had the opportunity to unleash their ingenuity and passion for robotics.

As the curtains closed on the "Robotics Workshop 2.0 using DIY Kits Training," its impact reverberated far beyond the confines of the classroom. Armed with newfound knowledge and skills, the participants embarked on their academic journey with renewed enthusiasm and a deeper appreciation for the transformative power of hands-on learning. The success of the workshop stands as a testament to the unwavering commitment of our institution and its visionary leadership in nurturing the next generation of innovators and technologists.

**What are the benefits of DIY kits?**

DIY kits serve as invaluable tools for students in several ways. Firstly, they provide hands-on experience, allowing students to actively engage with the concepts they learn in theory. By assembling and operating these kits, students gain practical skills that deepen their understanding of electronics and electrical engineering. This practical application bridges the gap between theory and practice, enhancing their overall learning experience.

Moreover, DIY kits foster creativity and innovation among students. They provide a platform for experimentation, where students can explore different ideas and solutions in a supportive environment. This not only encourages critical thinking but also instils confidence in students as they see their ideas come to life through their projects.

Additionally, DIY kits promote collaboration among students. Working together on projects encourages teamwork and communication skills, essential for success in any field. Through collaborative efforts, students learn from each other's strengths and perspectives, enriching their learning experience and fostering a sense of community.

Overall, DIY kits are instrumental in empowering students to take ownership of their learning journey. By providing them with the tools and resources to explore and create, these kits inspire a lifelong love for learning and innovation.

## ➢ Understanding Startups and Innovation



**Government Science College**
Gandhinagar, Gujarat

Lecture on

# Understanding Startups and Innovation

### SSIP 2.0
Student Startup & Innovation Policy 2.0

*Date : July 31st , XXIII*
1 P.M.
At N-11, Department of Zoology

Organised By: SSIP & Innovation Club

Dr. M.G.Bhatt
Principal
Chairman-SSIP
(GSCGNR)

Pritesh Khatri
Asst. Prof. Physics
(GSCGNR)

|| आ नो भद्राः कृत्वो यन्तु विश्वतः ||
ऋग्वेद १-८१
**(Let the noble thoughts/ideas come to us from all directions.)**

A session dedicated for "Understanding Startups and Innovation" under the aegis of SSIP and Innovation Club of Government Science College, Gandhinagar by Mr.Pritesh Khatri (Assistant Professor, Physics)

On August 7th, 2023, the SSIP & Innovation Club Committee at Government Science College, Gandhinagar, organized an engaging lecture titled "Understanding Startup and Innovation." More than 100 eager students attended, excited to dive into the world of startups and innovation.

Assistant Professor P. C. Khatri delivered the lecture, captivating the audience with his extensive experience in the startup ecosystem. He covered various aspects of entrepreneurship, from generating groundbreaking ideas to executing strategic business plans. His talk emphasized the importance of creativity and problem-solving in driving innovation.

Mr. Khatri also discussed the critical elements of business planning, highlighting the significance of market research, financial projections, and risk assessment in building a strong foundation for startup ventures. He provided students with practical guidance for navigating the complexities of entrepreneurship, equipping them with the knowledge and tools they need to succeed.

The lecture also explored the topic of funding, offering insights into different avenues available for financing startups, such as bootstrapping, angel investment, venture capital,

and crowdfunding. Mr. Khatri simplified the funding landscape, empowering students to make informed decisions about raising capital for their entrepreneurial endeavours.



Additionally, the discussion covered the importance of marketing in driving startup growth and visibility. Mr. Khatri shared innovative marketing strategies tailored to the unique needs of startups, including storytelling, branding, and digital marketing techniques.

The event was graced by the presence of our esteemed Principal, Dr. M.G. Bhatt, and Vice Principal, Dr. C. C. Ambasana, whose support underscored the college's commitment to fostering an entrepreneurial mindset among students. Through their motivational words and sage advice, Dr. Bhatt, and Dr. Ambasana inspired participants to embrace innovation, resilience, and determination on their entrepreneurial journey.

As the lecture concluded, its impact resonated across the college campus, igniting a spirit of entrepreneurial enthusiasm among students. Armed with newfound knowledge, inspiration, and guidance, participants left with a renewed sense of purpose and determination to carve their paths in the dynamic world of startups and innovation.
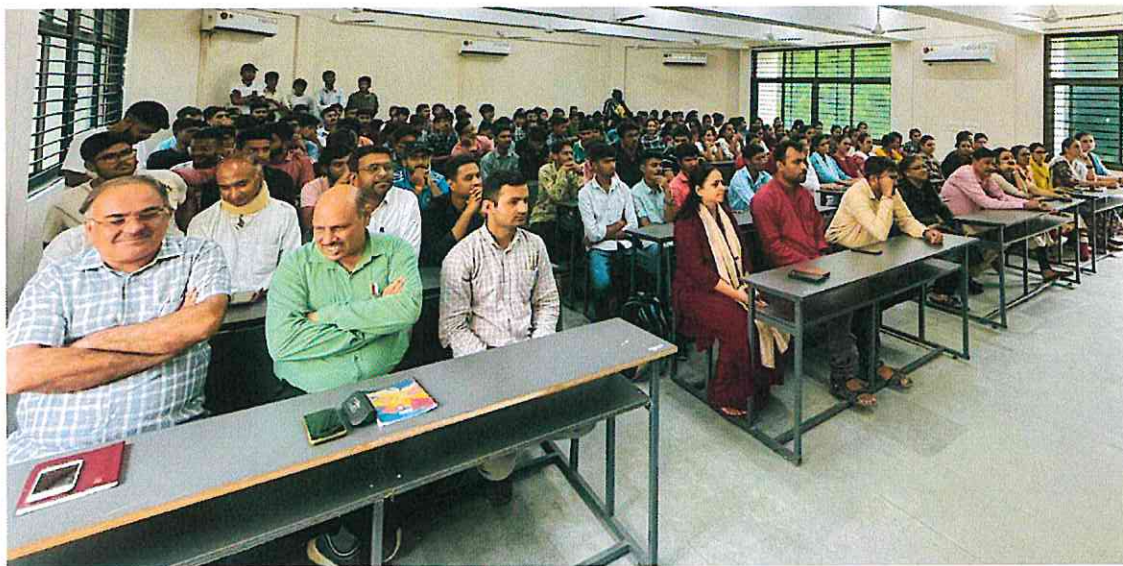
> **Application of Mathematics on Real world problem**



**Government Science College, Gandhinagar**

Student Innovation Fest 2023
National Level Event

Talk on

"Application of Mathematics in Real-world Problem"

**Patron**

Dr. M. G. Bhatt
Principal
Government Science College,
Gandhinagar

**Speaker**

Dr. Nirav Patel
Assistant Professor
Government Engineering College,
Gandhinagar

All Faculty and Students are Invited

Proud to participate in the world record of "More than 250 No. of expert talks by 250 Nos. of different experts at 250 No. of School/College/Unversity."

Organized By
SSIP-Innovation Club and Gyandhara Committee

10 August, Thursday Join Us 2.00 to 3.00 PM
Place: Room No. 26, GSCGNR

On August 10th, 2023, the SSIP-Innovation Club Committee and Gyandhara Committee at Government Science College, Gandhinagar, teamed up to present a thought-provoking lecture titled "Application of Mathematics in Real-World Problems." This collaborative effort aimed to show students how math isn't just about numbers on a page but has real-life applications that can solve complex challenges.

The lecture featured Assistant Professor Dr. Nirav Patel from Government Engineering College, Gandhinagar, whose passion for math shone through in his presentation. Dr. Patel used his expertise to demonstrate how mathematical principles are used in various industries, from engineering to finance to healthcare. He shared practical examples of how math models and algorithms make a difference in the world.

Students were eager to learn how math applies beyond textbooks and classrooms, and Dr. Patel's insights captivated them. His talk showed them how math can change the way we understand the world and inspire innovation.

The lecture aimed to empower students by showing them how math can be a powerful problem-solving tool. By highlighting how math intersects with different fields, it encouraged students to think creatively and critically about real-world problems. This deeper understanding of math's beauty and usefulness was the goal.

Dr. M. G. Bhatt, our esteemed Principal, showed his support for interdisciplinary learning by attending the event. His presence motivated both students and faculty, emphasizing the importance of exploring different subjects together.

As the lecture concluded, students left with a renewed enthusiasm for applying math to real-world problems. With a deeper understanding of math's role in society, they felt more determined to make a positive impact using their mathematical knowledge.
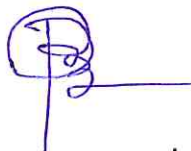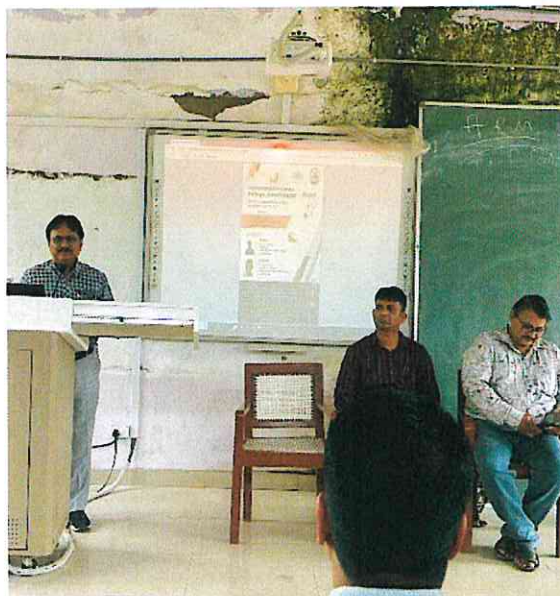
## Supported by

## Team SSIP and Innovation Club,

## Government Science College, Sector-15, Gandhinagar

- Dr. P U Sharma (Cordinator, Innovation Club)
- Prof. P D Chaudhary (Cordinator, SSIP)
- Dr. A A Baakza (Co-Chairman)
- Dr. N A Patel (Member)
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- Dr. J T Thumar (Member)
- Dr. H A Prajapati (Member)
- Dr. R M Patel (Member)
- Prof. P C Khatri (Member)

( Prof. P. D. Chaudhary )

*Thank You*

Principal
Govt. Science College
Gandhinagar