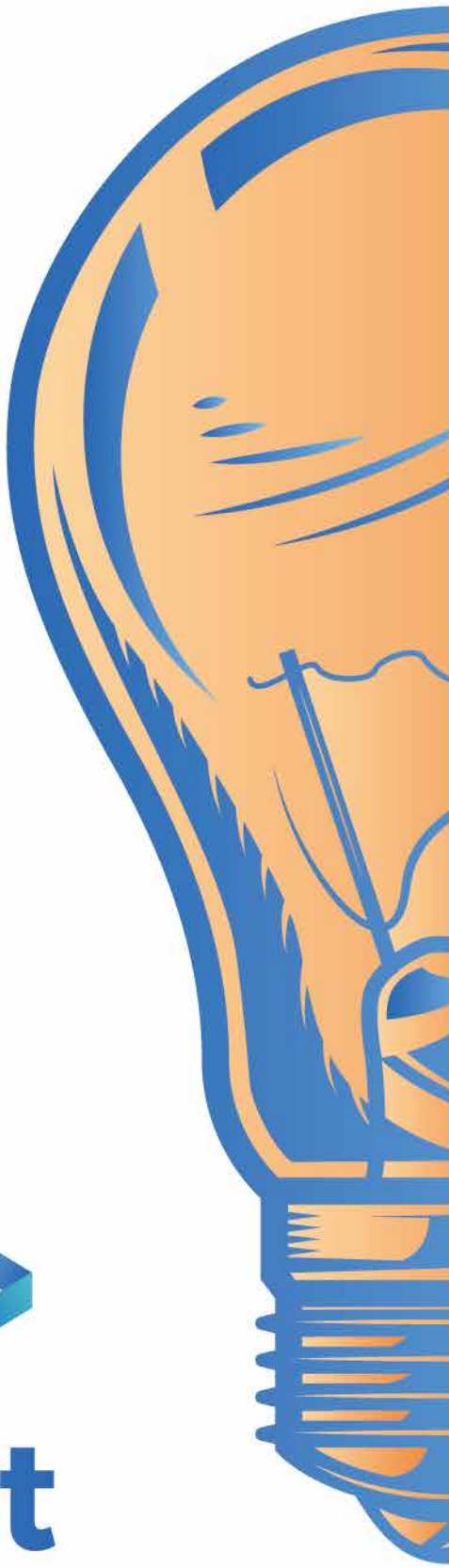
Goa State Innovation Council



Annual Report
2020 - 2021

DR. PRAMOD SAWANT
CHIEF MINISTER, GOA

Dated: 21/06/2021

MESSAGE

The Goa State Innovation Council is established with a mandate to promote Innovation ecosystem in the State of Goa. The Virtual Innovation Register supports young and aspiring innovators to register an Idea and pursue it with the necessary support provided by the Council.

In views to the demand of a fast developing economy and to sustain the growth parameters, all sectors must work towards promoting Innovation using new methods and technology. The Council has been working relentlessly is promoting Innovation in the State with its dedicated Council Members and staff.

I encourage all the stakeholders to take advantage of the opportunities laid out by the State Government.

(Dr. Pramod Sawant)
Chief Minister of Goa

MINISTER'S BLOCK, SECRETARIAT COMPLEX, PORVORIM, GOA, 403 521, INDIA
PH: 0832-2419841/42 Fax: 0832 2419840/46 EMAIL: cm.goa@nic.in

Michael V.Lobo
Minister for Rural Development, Ports,
Science &Technology and Waste Management
Government of Goa
Secretariat, Porvorim, Bardez -Goa. 403521
Phone No.(0832)2419828/2419530 Fax: 0832-2419834

No: Min-Ports/Correspondence/21/333 Dated: 23/06/21

MESSAGE

In this era of Startups and Innovations, the Department of Science, Technology & Waste Management and particularly the Goa State Innovation Council is taking giant steps to create the right ecosystem for achieving the desired objectives of Innovation in the state of Goa.

The Council has undertaken various activities to promote Innovation for the year 2020-21 by providing the right medium to youth of Goa to explore and harness their talent and capabilities.

I request the youth to take maximum advantage of the opportunities rendered by the Goa State Innovation Council thereby enabling themselves to garner new opportunities which will ultimately benefit our State and our country.

I wish the Goa State Innovation Council all the best in their work and future endeavors.

(Michael V. Lobo)
Minister for Ports, Rural Development, Science
& Technology and Waste Management

SHRI JOSE MANUEL NORONHA
Chairman

Message from the Chairman

During the year under review, the challenges thrown by the Covid-19 pandemic have made normal working life difficult. However, despite this the Council continued with its efforts to strengthen the innovative ecosystem in the State of Goa by conducting a large number of programs related to innovation and start-ups.

Most of the activities of the Council were conducted virtually due to the requirement of social distancing and other norms notified by the Government on account of the pandemic. This report carries details of all the programs conducted and it is worthwhile highlighting that the Council focused its efforts on STEM (Science, Technology, Engineering and Mathematics) programs and IPR (Intellectual Property Rights) training programs. It is also heartening to note that the number of innovators registering their ideas under the Virtual Innovation Register of the Council has seen a steady rise every year.

The Council wishes to place on record its appreciation for the co-operation received from Fatorda Salesian Society and Don Bosco College of Engineering, Fatorda by permitting the council it to carry out its activities within their premises. The Council is also thankful to the Department of Science, Technology and Waste Management for all the assistance it has received during the year under review.

Shri Jose Manuel Noronha

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INTRODUCTION

Chapter 01
INTRODUCTION

"We want millions of self-reliant men and women.
Able young people should be persuaded to make their own opportunities."

- Mahatma Gandhi

1.1 General Introduction

The economic crisis triggered by the coronavirus pandemic in 2020 gave birth to the Atmanirbhar Bharat Abhiyan. While the idea was first proposed by Prime Minister Shri Narendra Modi, some of its features are similar to the Swadeshi movement launched on August 7, 1905, to take on the British regime of the time. Atmanirbhar means 'self-reliant'. On May 12, Prime Minister Narendra Modi announced in his address to the nation the Atmanirbhar Bharat Abhiyan. He said it is important to India to become 'self-reliant' for it is the only way to make the 21st century belong to India. For India to become Atmanirbhar, we have to focus on inclusive and sustainable development. By creating enabling conditions for inclusive growth, we can bridge economic, social and environmental gaps. One such method to achieve inclusive and sustainable growth is to foster the spirit of innovation and entrepreneurship among all classes, groups and communities.

The Goa State Innovation Council (GSInC) was thus established. by the Directorate of Science and Technology, Government of Goa.

The Council has been taking giant steps to establish the right platform and a conducive environment. It has been organizing various programs and events to spread awareness about innovation and entrepreneurship among the people of Goa. GSInC has been handhold budding start-ups and innovators in scaling their business ideas and identifying potential ideas and innovations through competitions. The Council is now actively involved in creating an eco-system on Innovation in the State and has launched its website at the hands of the Hon'ble (former) Chief Minister of Goa on 05.07.2018.

Objectives of the Goa State Innovation Council

- Drive the innovation agenda in the state and harness the core competencies, local talent, resources and capabilities to create new opportunities
- Support the State Government to promote innovation in the State
- Encourage young talent in local universities, colleges, medium and small-scale industries (MSME) and R&D institutes
- Map opportunities for innovation in the State
- Identify and reward talent in innovation and disseminate success stories
- Organize seminars, lectures, workshops on innovation
- Create the state innovation portal to educate and drive awareness on innovation
- Provide input into the Innovation Roadmap 2021-2030 for the State

1.2 The Secretariat

The Secretariat of Goa State Innovation Council is established at Don Bosco College of Engineering, Fatorda, Goa. Presently, Goa State Innovation Council Secretariat employs two personnel whose details are given below:

Table: 1.2: Name & Designation of Staff employed by GSInC

Sr. No.	Name of the Employee	Designation
01	Mr. Sudip Faldesai	Project Officer
02	Mrs. Valencia Fernandes	Secretarial Assistant

The Organizational Chart is attached in Annexure I.

02

CONSTITUTION OF THE COUNCIL

Chapter 02
CONSTITUTION OF THE COUNCIL

"If everyone is moving forward together,
then success takes care of itself."

- Henry Ford

For a council to function effectively, what it needs is a balance of thoughts. This is the secret behind GSInC's success. The vast experience of our council members fused with their scientific temperament has been helping GSInC to grow in leaps and bounds.

2.1 Constitution of the Council

Chairman:

SHRI JOSE MANUEL NORONHA
Chairman
Goa Public Service Commission

Member:

SHRI VIVEK KAMAT
Director
Directorate of Technical Education
Porvorim, Goa

Member:

DR. RAJESH LOHANI
Principal
Goa College of Engineering
Farmagudi, Goa

Member:

DR. NEENA PANANDIKAR
Principal
Don Bosco College of Engineering
Fatorda, Goa

Member:

DR. MRIDULA GOEL
Associate Professor
BITS Pilani K. K. Birla Goa Campus, , Goa

Member:

SHRI KUNAL UPADHYAY
CEO
Centre for Innovation Incubation and Entrepreneurship, IIM, Ahmedabad

Member:

PROF. RAGHUVEER VERNEKAR
Nominee
Goa Chambers of Commerce and Industry
Panaji, Goa

Member:

DR. KAUSTUBH PRIOLKAR
Faculty
Goa University, Goa

Member:

SHRI D. S. PRASHANT
CEO
Forum for Innovation Incubation Research & Entrepreneurship
Fatorda, Goa

Member:

SHRI PRADEEP MORAJKAR
Member Secretary
Goa State Council for Science and Environment
Saligao, Goa

Member Secretary:

SHRI LEVINSON MARTINS
Director
Department of Science, Technology & Waste Management
Govt. of Goa

2.2 Constitution of the Board

a/c

No. 3-191/2011/STE-DIR/725
Office of the Director,
Department of Science & Technology,
Opp. Saligao Seminary,
Saligao, Bardez Goa – 403511.

Date: 18/10/2016

ORDER

1) Read Order dated 4th August, 2011 under No. 9 / 309 / 2011 / HE / SInC / 1673.
2) Read order no. 3-191/2011/STE-DIR/702 dated 12th September, 2013.

In supersession of the above referred order, Government is pleased to reconstitute the Goa State Innovation Council (GSInC), comprising of the following members:

1) Shri Jose Manuel Noronha
Chairman .... Chairman

2) Director,
Birla Institute of Technology & Science,
Zuarinagar, Sancoale or his nominee .... Member

3) Dr. Neena Panandikar
Principal,
Don Bosco College of Fatorda Goa .... Member

4) Shri Kunal Upadhay
CEO
Centre for Incubation Innovation & Entrepreneurship
Indian Institute of Management
Ahmedabad, Gujarat .... Member

5) Director,
Directorate of Technical Education
Government of Goa,
Porvorim Goa .... Member

6) Principal, Goa Engineering College
Farmagudi, Ponda Goa .... Member

8) GCCI Nominee .... Member

9) Shri D.S. Prashant,
General Manager,
Centre for Incubation & Business Accerlation
Verna – Goa. .... Member

10) Member Secretary,
Goa State Council for Science & Technology
Department of Science & Technology,
Government of Goa,
Saligao, Bardez-Goa. .... Member

11) Director,
Department of Science & Technology,
Government of Goa,
Saligao, Bardez-Goa. .... Member Secretary

Following shall be terms of reference for the council:-

1.0. Support the Government to promote innovation in the State
2.0. Encourage young talent in Goa University, Colleges, Higher Education Institution (HEI's), Medium and Small scale Industries (MSME) and R & D Industries etc.
3.0. Map opportunities for innovation in the State
4.0. Identify and reward talent in innovation and disseminate success stories.
5.0. Organize seminars, workshops, lectures on innovation and create State Innovation Portal to educate the stake holders.
6.0. Help create innovation eco system
7.0. Organize risk capital
8.0. Prepare an Innovation Road Map for the State of Goa for the period 2016-2020.

The Non Official members of the Council shall be paid TA/DA as per the Rules for attending the meeting of the Council.

(Levinson J. Martins)
Director / Ex-officio, Jt. Secretary(S&T)

Copy to:-

1) P.S. to Secretary for Hon'ble Chief Minister, Government of Goa, Secretariat, Porvorim Goa.
2) P.A. to Hon'ble Minister for Science & Technology, Secretariat, Porvorim Goa.
3) P.S. to Chief Secretary, Government of Goa, Secretariat, Porvorim Goa.
4) P.S. to Secretary, Government of Goa, Secretariat, Porvorim Goa.
5) The Director, (Directorate of Higher Education), Porvorim Goa... for kind information.
6) The Director of Accounts, Panaji Goa.

03

MEETINGS OF THE COUNCIL

Chapter 03
MEETINGS OF THE COUNCIL

"Meetings are at the heart of an effective organization, and each meeting is an opportunity to clarify issues, set new directions, sharpen focus, create alignment, and move objectives forward."

- Paul Axtell

3.1 Meeting of the Council

During the year under the report, the GSINC held five Council Meetings under the reconstituted Council. The details of the meeting held during the year are presented in the table below:

Table: 3.1: Minutes of meeting

Sr. No.	Sr. No. of the Meeting	Date of Meeting	Venue
1	16th	03/07/2020	Online Meeting through Zoom Platform
2	17th	08/07/2020	Online Meeting through Zoom Platform
3	18th	15/07/2020	Online Meeting through Zoom Platform
4	19th	11/09/2020	Online Meeting through Zoom Platform
5	20th	24/10/2020	Online Meeting through Zoom Platform

3.2 Extracts of minutes of 16th Meeting of the Council held during the year under report

Meeting Agenda	
Purpose: The 16th Members meeting of Goa State Innovation Council	
Objectives: To follow-up on the decisions of the previous meeting and to discuss on the agenda as mentioned.	
Location: Online Meeting through Zoom Platform	
Date & Time: 3rd July 2020 at 9:30 am	
Agenda Item	**Who**
1. Reading and confirming the minutes of the last meeting	
2. Urgent matter to be discussed in view of Science, Technology, Innovation Policy (STIP) 2020 inputs	Project Officer
3. Release of Annual Report 2019-2020	Project Officer
4. Any other matter with the permission of the Chair	

MINUTES OF 16TH MEETING OF THE COUNCIL

The following members were present at the meeting:

Table: 3.2: GSInC Members present for 16th Meeting

1	SHRI. JOSE MANUEL NORONHA Chairman, Goa Public Service Commission, Panaji, Goa	Chairman
2	DR. KRUPASHANKARA MS Principal, Goa College of Engineering, Farmagudi, Goa	Member
3	DR. NEENA PANANDIKAR Principal, Don Bosco College of Engineering, Fatorda, Goa	Member
4	PROF. RAGHUVEER VERNEKAR Nominee, Goa Chambers of Commerce and Industry, Panaji, Goa	Member
5	SHRI. D. S. PRASHANT CEO, Forum for Innovation, Incubation, Research and Entrepreneurship, Fatorda, Goa	Member
6	DR. MRIDULA GOEL Associate Professor, Bits Pilani K.K. Birla Goa Campus, Goa	Member
7	DR. KAUSTUBH PRIOLKAR Faculty, Goa University, Goa	Member
8	SHRI. PRADEEP MORAJKAR Member Secretary, Goa State Council for Science and Environment, Saligao, Goa	Member
9	SHRI. LEVINSON MARTINS Director, Department of Science, Technology & Waste Management, Govt. of Goa, Porvorim, Goa	Member Secretary

Dr. Vivek Kamat & Shri. Kunal Upadhyay could not attend the Zoom meeting and were granted leave of absence. Thereafter, the Chairman welcomed the members of the Goa State Innovation Council for the meeting.

1. At the outset, the minutes of the meeting held on 11th Feb 2020 were read and confirmed with the addition of providing an amount of Rs 2.5 lakhs for Final Year Innovative Student Competition and noting it in the minutes.

2. The Chairman informed that the state was required to prepare a Science and Technology and Innovation Policy and an online meeting with Senior Officials from the Ministry of Science and Technology, on this account was held recently when the Project Officer of GSInC attended. The invitation letter for public consultation for India's New Science and Technology and Innovation

Policy (STIP) was discussed and Chairman advised to email the details as available with the council to all members with highlights from the online STIP 2020 State Consultation Information Session held on 25th June 2020. Chairman further informed members to study the deliberations and prepare suggestions accordingly. He requested that these suggestions be sent to the council for consolidation and the same be discussed in detail at the next meeting. The Council members agreed to share their comments and inputs by 6th July 2020.

3. Chairman informed that the GSInC annual report for 2019-20 was compiled and ready to be released officially. During the discussion on release of Annual Report 2019-20, the council members decided to release the report at the hands of Hon'ble Minister of Science & Technology, Government of Goa, Shri Michael Lobo, at the Secretariat of Goa Legislative Assembly. The tentative date for the release was suggested to be 13th July 2020, and subject to the confirmation by the Hon'ble Minister. It was also informed that the Annual report had to be placed on the floor of the house during the ensuing assembly session.

4. It was decided that the next meeting be convened through the Zoom Platform on 8th July 2020 at 9.30 AM

5. The meeting ended with the vote of thanks.

3.3 Extracts of minutes of 17th Meeting of the Council held during the year under report

Meeting Agenda	
Purpose: The 17th Members meeting of Goa State Innovation Council	
Objectives: To follow-up on the decisions of the previous meeting and to discuss on the agenda as mentioned.	
Location: Online Meeting through Zoom Platform	
Date And Time: 8th July 2020 at 9:30 am	
Agenda Item	Who
1. Reading and confirming the minutes of the last meeting	
2. Inputs/views of GSInC members towards the inputs on Science, Technology , Innovation Policy (STIP) 2020	
3. Any other matter with the permission of the Chair	

MINUTES OF 17TH MEETING OF THE COUNCIL

The following members were present at the meeting:

Table: 3.3: GSInC Members present for 17th Meeting

1	SHRI. JOSE MANUEL NORONHA Chairman, Goa Public Service Commission, Panaji, Goa	Chairman
2	DR. NEENA PANANDIKAR Principal, Don Bosco College of Engineering, Fatorda, Goa	Member
3	DR. MRIDULA GOEL Associate Professor , BITS Pilani K.K. Birla Goa Campus, Goa	Member
4	PROF. RAGHUVEER VERNEKAR Nominee, Goa Chambers of Commerce and Industry, Panaji, Goa	Member
5	DR. KAUSTUBH PRIOLKAR Professor, Goa University, Goa	Member
6	SHRI. D. S. PRASHANT CEO, Forum for Innovation, Incubation, Research and Entrepreneurship, Fatorda, Goa	Member
7	SHRI. PRADEEP MORAJKAR Member Secretary, Goa State Council for Science and Environment, Saligao, Goa	Member

Dr. Vivek Kamat, Dr. Krupashankara MS, Shri Kunal Upadhyay & Shri. Levinson Martins could not attend the Zoom meeting and were granted leave of absence. Thereafter, the Chairman welcomed the members of the Goa State Innovation Council for the meeting.

1. At the outset, the minutes of the meeting held on 03rd July 2020 were read and confirmed.

2. Chairman mentioned that the council has received inputs from most of the members and advised to form a sub-committee to consolidate the same. He recommended formation of the subcommittee with the following members:

Table 3.3.1: Sub-committee of the Principals

1	Dr. Krupashankara MS Principal, Goa College of Engineering, Farmagudi, Goa	Member
2	Dr. Neena Panandikar Principal, Don Bosco College of Engineering, Fatorda, Goa	Member
3	Dr. Mridula Goel Associate Professor , BITS Pilani K.K. Birla Goa Campus, Goa	Member
4	Dr. Kaustubh Priolkar Faculty, Goa University, Goa	Member
5	Shri. D. S. Prashant CEO, Forum for Innovation, Incubation, Research and Entrepreneurship, Fatorda, Goa	Co-ordinator

It was decided to consolidate the deliberation & prepare a draft document of the suggestions accordingly by 13th July 2020 to be presented in the next Goa State Innovation Council meeting.

3. The council members discussed the proposal of Shri Deepak Pathania, member of GSInC's Technical Advisory Committee for filing provisional patents, in conducting a competition to crowdsource innovative problem solutions for COVID-19 related issues. The council agreed to support the initiative for prototyping and mentioned the need to have similar crowd sourced solutions related to COVID-19.

4. It was decided that the next meeting be convened through the Zoom Platform on 15th July 2020 at 9.30 AM.

5. The meeting ended with the vote of thanks.

3.4 Extracts of minutes of 18th Meeting of the Council held during the year under report

Meeting Agenda	
Purpose: The 18th Members meeting of Goa State Innovation Council	
Objectives: To follow-up on the decisions of the previous meeting and to discuss on the agenda as mentioned.	
Location: Online Meeting through Zoom Platform	
Date And Time: 15th July 2020 at 9:30 am	
Agenda Item	Who
1. Reading and confirming the minutes of the last meeting	
2. Inputs/views of GSInC members towards the inputs on Science, Technology , Innovation Policy (STIP) 2020.	
3. Any other matter with the permission of the Chair	

MINUTES OF 18TH MEETING OF THE COUNCIL

The following members were present at the meeting:

Table: 3.4: GSInC Members present for 18th Meeting

1	SHRI. JOSE MANUEL NORONHA Chairman, Goa Public Service Commission, Panaji, Goa	Chairman
2	DR. VIVEK KAMAT Director, Directorate Of Technical Education, Porvorim, Goa	Member
3	DR. NEENA PANANDIKAR Principal, Don Bosco College of Engineering, Fatorda, Goa	Member
4	DR. MRIDULA GOEL Associate Professor , BITS Pilani K.K. Birla Goa Campus, Goa	Member
5	PROF. RAGHUVEER VERNEKAR Nominee, Goa Chambers of Commerce and Industry, Panaji, Goa	Member
6	DR. KAUSTUBH PRIOLKAR Professor, Goa University, Goa	Member
7	SHRI. D. S. PRASHANT CEO, Forum for Innovation, Incubation, Research and Entrepreneurship, Fatorda, Goa	Member
8	SHRI. LEVINSON MARTINS Director, Department of Science, Technology & Waste Management, Govt. of Goa, Porvorim, Goa	Member Secretary

Shri. Pradeep Morajkar, Dr. Krupashankara MS & Shri. Kunal Upadhyay could not attend the Zoom meeting and were granted leave of absence. Thereafter, the Chairman welcomed the members of the Goa State Innovation Council for the meeting.

1. At the outset, the minutes of the meeting held on 08th July 2020 were read and confirmed.

2. The inputs from the subcommittee which were advised to consolidate the deliberation & prepare a draft document of the suggestions received on 13th July 2020 were discussed and Chairman directed to forward the documents to the Director, Department of Science & Technology, Govt of Goa. Refer to enclosed Annexure II & III.

3. During the discussion, Chairman suggested to release the Annual Report 2019-20 virtually in presence of Hon'ble Minister of Science & Technology, Govt of Goa.

4. The meeting ended with the vote of thanks.

3.5 Extracts of minutes of 19th Meeting of the Council held during the year under report

Meeting Agenda	
Purpose: The 19th Members meeting of Goa State Innovation Council	
Objectives: To follow-up on the decisions of the previous meeting and to discuss on the agenda as mentioned.	
Location: Online Meeting through Zoom Platform	
Date And Time: 11th Sept 2020 at 9:00 am	
Agenda Item	Who
1. Reading and confirming the minutes of the last meeting	
2. Discussion on realignment of initiatives to be conducted by GSInC due to COVID19	Project Officer
3. Proposal on conducting online session on “IPR – Know your Patentability Potential”	Project Officer
4. Discussion on Goa Quiz Championship	Project Officer
5. Discussion on Scheme proposal of GSInC’s Prototyping Grant under VIR	Project Officer
6. Discussion on Proposal by Entrepedia	Project Officer
7. Any other matter with the permission of the Chair	

MINUTES OF 19TH MEETING OF THE COUNCIL

The following members were present at the meeting:

Table: 3.5: GSInC Members present for 19th Meeting

1	SHRI. JOSE MANUEL NORONHA Chairman, Goa Public Service Commission, Panaji, Goa	Chairman
2	DR. NEENA PANANDIKAR Principal, Don Bosco College of Engineering, Fatorda, Goa	Member
3	DR. MRIDULA GOEL Associate Professor, BITS Pilani K.K. Birla Goa Campus, Goa	Member
4	DR. KAUSTUBH PRIOLKAR Professor, Goa University, Goa	Member
5	SHRI. D. S. PRASHANT CEO, Forum for Innovation, Incubation, Research and Entrepreneurship, Fatorda, Goa	Member
6	SHRI. PRADEEP MORAJKAR Member Secretary, Goa State Council for Science and Environment, Saligao, Goa	Member
7	SHRI. LEVINSON MARTINS Director, Department of Science, Technology & Waste Management, Govt. of Goa, Porvorim, Goa	Member Secretary

Dr. Vivek Kamat, Shri. Raghuveer Vernekar, Dr. Krupashankara MS & Shri. Kunal Upadhyay could not attend the meeting and were granted leave of absence. Thereafter, the Chairman welcomed the members of the Goa State Innovation Council for the meeting.

1. At the outset, the minutes of the meeting held on 15thJuly 2020 were read and confirmed.

2. The Chairman informed the members that the Annual Report 2019-20 was released and the report received publicity in the local media.

3. The proposal for conducting the various key initiatives of the council through online platforms was discussed and the respective budgets were approved.

Table: List of Key Initiatives

Sr. No.	Key Initiatives	Proposed Budget (INR in Lacs)
1	Sensitisation Workshop on Innovation & Creativity in schools (Total 50 nos.)	5.0
2	Bootcamps on innovation in Colleges (Total 30 nos.)	7.5
3	Women Centric Workshop in colleges (WCW) (Total 3 nos.)	1.0
4	Orientation Program on Innovation & Startups for school teachers (Total 2 nos.)	2.0
5	Industry Institute Interaction for colleges (Total 5 nos.)	2.0
6	IPR Awareness programs (Total 4 nos.)	1.0
7	Faculty Development Programs (Total 2 nos.)	4.0
8	Risk Capital – VC Funding Sessions (Total 4 nos.)	2.0
9	GSInC's Prototyping Grant Scheme (Total 20 nos.)	8.0
10	IPR Support - Provisional Patent Scheme (Total 30 nos.)	3.0

The budgets for the following competitions were discussed and approved by the council:

Table: List of Key Initiatives

Sr. No.	Key Initiatives	Proposed Budget (INR in Lacs)
1	Goa's Young Innovator's Award 2020-21	1.5
2	Final Year Student Project Competition 2020-21	2.0
3	Goa Waste Management Hackathon 2020-21	1.0

4. The council members discussed the proposal of Goa State Innovation Council's Prototyping Grant Scheme under Virtual Innovation Register and it was approved with the objective to support prototyping and make it affordable for Students, Startups, Innovators, Research Faculty & Entrepreneurs who require the necessary support in converting Ideas into scalable products. It was also discussed and decided that the Scheme be designed for making available grants and this Scheme be placed before the Chairman for approval.

Sr. No.	Heads of Expenditure	Proposed Budget (INR in Lacs)
1	Prototyping Grant (Total 20 projects - Rs 20,000/ project)	4.0
2	Training & Mentoring	1.0
3	Sessions Consumable, Handholding Support Cost	2.0
4	Promotional Expenses, Documentation, Publication & other	1.0
	TOTAL	**8.0**

The chairman suggested creating brochures for the schemes of the Prototyping grant & Provisional patent grant of Goa State Innovation Council mentioning the process of registration & other details in the form of a flow chart which could be uploaded on the website.

5. The proposal to conduct IPR Session on the topic of Know your Patentability Potential was discussed with the objective to equip the students, teachers and innovators with skills and knowledge that are essential for technology landscape and patent search. The proposed date to conduct the session on 26.09.2020 was approved. The Council members discussed and approved the proposal of using the platform, Entrepedia for providing training on entrepreneurship free of cost for school students in the State of Goa.

6. It was informed that a meeting was conducted with the Principals of Engineering colleges on 06.07.2020 through the zoom platform to discuss the feasibility of conducting the finals of the Final Year Student Project Competition 2019-20. Based on the deliberations in that meeting, it was proposed that the finalists be awarded certificates and mementos and this proposal was discussed and approved by the council.

7. The meeting ended with the vote of thanks.

3.6 Extracts of minutes of 20th Meeting of the Council held during the year under report

Meeting Agenda	
Purpose: The 20th Members meeting of Goa State Innovation Council	
Objectives: To follow-up on the decisions of the previous meeting and to discuss on the agenda as mentioned.	
Location: Online Meeting through Zoom Platform	
Date And Time: 24th Oct, 2020 and 9:30 am to 10:00 am	
Agenda Item	**Who**
1. Reading and confirming the minutes of the last meeting	
2. Discussion on launch of Prototyping Grant Scheme & Certificate distribution of Final Year Students Project Competition 2019-20	Project Officer
3. Updates on previously conducted events	Project Officer
4. Discussion on upcoming events	Project Officer
5. Any other matter with the permission of the Chair	

MINUTES OF 20TH MEETING OF THE COUNCIL

The following members were present at the meeting:

Table: 3.6: GSInC Members present for 20th Meeting

1	SHRI. JOSE MANUEL NORONHA Chairman, Goa Public Service Commission, Panaji, Goa	Chairman
2	DR. VIVEK KAMAT Director, Directorate of Technical Education, Porvorim, Goa	Member
3	DR. KRUPASHANKARA MS Principal, Goa College of Engineering, Farmagudi, Goa	Member
4	DR. NEENA PANANDIKAR Principal, Don Bosco College of Engineering, Fatorda, Goa	Member
5	DR. MRIDULA GOEL Associate Professor, BITS Pilani K.K. Birla Goa Campus, Goa	Member
6	PROF. RAGHUVEER VERNEKAR Nominee, Goa Chambers of Commerce and Industry, Panaji, Goa	Member
7	DR. KAUSTUBH PRIOLKAR Professor, Goa University, Goa	Member
8	SHRI. D. S. PRASHANT CEO, Forum for Innovation, Incubation, Research and Entrepreneurship, Fatorda, Goa	Member
9	SHRI. PRADEEP MORAJKAR Member Secretary, Goa State Council for Science and Environment, Saligao, Goa	Member
10	SHRI. LEVINSON MARTINS Director, Department of Science, Technology & Waste Management, Govt. of Goa, Porvorim, Goa	Member Secretary

Shri Kunal Upadhyay could not attend the meeting and was granted leave of absence. Thereafter, the Chairman welcomed the members of the Goa State Innovation Council for the meeting.

1. At the outset, the minutes of the meeting held on 11th September 2020 were read and confirmed.

2. The Prototyping Grant Scheme of Goa State Innovation Council was released by the chairman during the meeting. The Scheme will provide Grant In Aid for prototyping technology-based innovative projects/ideas under the Virtual Innovation Register (VIR), making it affordable for Students, Startups, Innovators, Research Faculty & Entrepreneurs who require the necessary support in converting Ideas into marketable products. The Certificate distribution of the Final Year Students Project Competition 2019-20 was discussed and it was decided by the council members to include the logo of Goa Chamber Of Commerce & Industry and to be certified by Chairman of Goa State Innovation Council, Director of Department of Science, Technology & Waste Management and Chairman of Education Committee - Goa Chambers of Commerce and Industry.

3. Project Officer reported the list of events and initiatives conducted by Goa State Innovation Council.

Sensitisation Workshop on Innovation & Creativity for School students:

Table: Sensitisation Workshop on Innovation & Creativity for School students

Sr. No.	Date	School	Participants
1	12/10/2020	Sacred Heart High School, Parra	91
2	12/10/2020	St. Anne's Institute, Agonda	79
3	13/10/2020	Keshav Smruti High School, Dabolim	87
4	14/10/2020	Saviour of the World High School, Loutolim	54
5	15/10/2020	St. Jude's High School, Betalbatim	57
6	16/10/2020	Govt. High School, Keri	51
7	16/10/2020	Anjuman Himayatul Islam High School, Baina Vasco	64
8	17/10/2020	Almeida High School Ponda	90
9	19/10/2020	Don Bosco High School, Calangute	54
10	20/10/2020	Infant Jesus High School, Colva	61
11	20/10/2020	Posh English High School, MAS building, Navelim	87
12	21/10/2020	Mae Dos Pobres High School, Nuvem	67
		TOTAL PARTICIPANTS	**842**

It was reported that 842 students attended the Sensitisation Workshop from 12 Schools.

Table: List of Key Initiatives

Sr. No.	Date	School	
1	26/09/2020	IPR Session - Know your Patentability Potential	254
2	29/09/2020	5 Ways This One Skill Will Turbocharge Your Future	87
3	29/09/2020	Prototyping Session - 3D Printing	221
4	14/10/2020	Prototyping Session - Robotics	115
5	15/10/2020	Startup Fund Raising Simplified	957
6	17/10/2020	IPR Session - Patent Filing and Prosecution - India & Overseas	94
7	22/10/2020	STIP 2020 – Interaction of State S&T Minister with Union S&T Minister	
8	23/10/2020	Bootcamp - Shree Mallikarjun college	72
9	23/10/2020	TDP – Laser Cutting	93
		TOTAL PARTICIPANTS	**1893**

It was reported that 1893 participants attended from 8 events and initiatives of the Goa State Innovation Council. It was mentioned that the Startup Fund Raising Simplified session under Risk Capital received 957 participants, the Chairman directed the project officer to observe the initiatives of other State Councils in Risk Capital and to be presented for the next council meeting.

4. The Entrepreneurship Learning Program using the Entrepredia.in app was announced for the school students, the platform provides the students an experience and journey of building their own startup. Through a fun gamified system, it allows students to understand the trade-offs that a businessman has to face and fundamentals of running a successful startup

Table: List of Schools

Sr. No.	Location	School
1	South Goa	Vidhya Vihar High School, Cortalim, Goa
2	South Goa	GHS Davorlim
3	South Goa	Govt. High School Valkini, Sanguem
4	North Goa	KAG's Panchasheel English School, Panchawadi, Ponda
5	North Goa	Govt High School, Sattari
6	South Goa	Govt High School, Paddi, Barcem
7	South Goa	Govt High School, Colomb Rivona
8	South Goa	Govt High School, Maina, Quepem
9	North Goa	St. Anthony's High School, Duler, Mapusa
10	North Goa	Azmane High School, Neura Ilhas

5. The action plan for the upcoming initiatives of Goa State Innovation Council was presented by the Project Officer.

Table: List of proposed Key Initiatives

Sr. No.	Key Initiatives with tentative dates
1	Faculty Development Programs (FDP) - 20th, 21st, 27th & 28th Nov 2020
2	Prototyping Grant Selection Meeting – 14th Nov 2020
3	Women Centric Workshop in colleges (WCW) – Nov 2020
4	IPR Awareness programs – Nov 2020
5	Risk Capital Session – Nov 2020
6	Prototyping Session – Nov 2020

6. The Administrative expenditure towards the salaries of the council staff was discussed and the Member Secretary directed the project officer to refer to the Office Memorandum by Department of Personnel for the contractual appointments in Government.

7. The meeting ended with the vote of thanks.

04

COMMITTEES AND SUB-COMMITTEES CONSTITUTED BY THE COUNCIL AND THEIR ACTIVITIES

Chapter 04
COMMITTEES AND SUB-COMMITTEES CONSTITUTED BY THE COUNCIL AND THEIR ACTIVITIES

"A good discussion increases the dimensions
of everyone who takes part."

- Randolph Bourne

4.1 Provisional Patent Filing Financial Assistance Scheme

Meeting Agenda	
	Purpose: The 4th meeting of Technical Advisory Committee of GSInC
	Objectives: To follow-up on the decisions of the previous meeting and to discuss on the agenda as mentioned.
	Location: Online Meeting through Zoom Platform
	Date And Time: 18th Dec 2020 at 9:45 am
Agenda Item	**Time**
1. Reading and confirming the minutes of the last meeting	9:45 am – 10 am
2. Online Interviews	10 am – 1 pm
3. Any other matter with the permission of the Chair	

MINUTES OF THE MEETING FOR THE THIRD TECHNICAL ADVISORY COMMITTEE (TAC) OF GSINC HELD ON 8TH DEC 2020 AT DON BOSCO COLLEGE OF ENGINEERING, FATORDA

Members present

Table : List of TAC members present

1	Mr. B S Revankar Ex-Director, NITK – STEP, Surathkal, Karnataka	Chairman
2	Prof Sunil Bhand Dean, Sponsored Research & Consulting, Professor of Chemistry BITS, Pilani - K.K. Birla, Goa	Member
3	Mr. Deepak Pathania Industrial Design, NID Ahmedabad, Goa	Member
4	Mr. Sudip Faldesai Project Officer, Goa State Innovation Council	Member - Secretary

Proceedings:

1. At the outset, the Chairman welcomed the members to the Meeting.

2. The Minutes of the previous meeting were read and confirmed by the members.

3. Action taken on proceedings of the previous meeting were presented and discussed.

4. During the presentations, it was observed that a total of 9 Ideas were presented for the evaluation by the Technical Advisory Committee out of 10 invitees. Ideas with the Unique Registration Number 270, 295 were approved and selected for Provisional Patent Scheme. The other Ideas were directed to revert with Novelty Claims, proof of concepts and other supporting documents. They were advised for the importance of Inventiveness among all the Ideas for Patent Search.

5. It was decided by the committee to schedule the next meeting in the third/fourth week of Feb 2021.

6. The meeting ended with the Vote of Thanks by the Chairman.

4.2 Prototyping Financial Assistance Scheme

1st Meeting of GSInC's Prototyping Grant

Meeting Agenda	
	Purpose: The 1st meeting of GSInC's Prototyping Grant
	Objectives: To follow-up on the decisions of the previous meeting and to discuss on the agenda as mentioned.
	Location: Online Meeting through Zoom Platform
	Date And Time: 13th Nov 2020 at 9:45 am

Agenda Item	Time
1. Reading and confirming the minutes of the last meeting	9:45 am – 10 am
2. Online Interviews	10 am – 1 pm
3. Any other matter with the permission of the Chair.	

MINUTES OF THE MEETING FOR THE FIRST SELECTION COMMITTEE FOR PROTOTYPING GRANT OF GSInC HELD ON 13TH NOV 2020 USING ZOOM MEETING APP

Members present

Table 4.2.1: List of Selection Committee present

1	Mr. B S Revankar Ex-Director, NITK – STEP, Surathkal, Karnataka	Chairman
2	Dr Narsinh Thakur Ph.D. Senior Principal Scientist, CSIR - NIO	Member
3	Mr. Sudip Faldesai Project Officer, Goa State Innovation Council	Member - Secretary

Proceedings

1. At the outset, the Chairman welcomed the members to the Meeting.

2. A total number of 10 Ideas with the following Unique Registration Numbers were invited for the online selection interview of the Prototyping Grant.

Table 4.2.2: List of applicants

Sr. No.	Unique Registration Numbers
1	312
2	313
3	140
4	311
5	317
6	318
7	309
8	319
9	320
10	316

3. A total of 7 ideas with Unique Registration Numbers 312, 313, 140, 311, 317, 319 and 320 were approved by the selection committee based on the eligibility criteria of Novelty, Usefulness, Scalability, Innovative approach & prototyping attempt.

4. Idea with Unique Registration Numbers 316 was absent and will be invited for the next selection meeting along with 318. 309 was advised for Patent Search.

5. It was decided by the committee to schedule the next meeting in the third/fourth week of December 2020.

6. The meeting ended with Vote of Thanks by the Chairman.

2nd Meeting of GSInC's Prototyping Grant

Meeting Agenda	
Purpose: The 2nd meeting of GSInC's Prototyping Grant	
Objectives: To follow-up on the decisions of the previous meeting and to discuss on the agenda as mentioned.	
Location: Online Meeting through Zoom Platform	
Date And Time: 18th Dec 2020 at 9:45 am	
Agenda Item	**Time**
1. Reading and confirming the minutes of the last meeting	9:45 am – 10 am
2. Online Interviews	10 am – 1 pm
3. Any other matter with the permission of the Chair.	

MINUTES OF THE MEETING FOR THE FIRST SELECTION COMMITTEE FOR PROTOTYPING GRANT OF GOA STATE INNOVATION COUNCIL HELD ON 18TH Dec 2020 USING ZOOM MEETING APP

Members present

Table 4.2.3: List of Selection Committee present

1	Mr. B S Revankar Ex-Director, NITK – STEP, Surathkal, Karnataka	Chairman
2	Dr Narsinh Thakur Ph.D. Senior Principal Scientist, CSIR - NIO	Member
3	Mr. Sudip Faldesai Project Officer, Goa State Innovation Council	Member - Secretary

Proceedings

1. At the outset, the Chairman welcomed the members to the Meeting.

2. A total number of 14 Ideas with the following Unique Registration Numbers were invited for the online selection interview of the Prototyping Grant.

Table 4.2.4: List of applicants

Sr. No.	Unique Registration Numbers
1	316
2	334
3	336
4	327 A
5	327 B
6	342
7	338
8	270
9	339
10	341
11	333
12	328
13	329
14	307 B

3. A total of 12 ideas with Unique Registration Numbers 316, 334, 336, 327 , 321, 342, 338, 270, 339, 333, 328, 329 and 307 were approved by the selection committee based on the eligibility criteria of Novelty, Usefulness, Scalability, Innovative approach & prototyping attempt.

4. It was decided by the committee to schedule the next meeting in the third week of Jan 2021.

5. The meeting ended with a Vote of Thanks by the Chairman.

05

VIRTUAL INNOVATION REGISTER

Chapter 05
VIRTUAL INNOVATION REGISTER

"The value of an idea lies in
the using of it."

- Thomas Edison

5.1 Introduction

Every start-up begins with an Idea. And ideas are vulnerable. That's because there are more chances of them being killed early in its premature stage because they do seem absurd or unfamiliar. If they survive the ruthless process of evaluation, the chances are they won't get a proper platform that will help them to flourish.

VIR is the platform where anyone can bounce their start-up ideas and get validation from experienced mentors who have significant industry experience. VIR also gives the ideators easy access to sophisticated tools to evaluate the commercial viability of ideas.

Virtual Innovation Register

The Virtual Innovation Register (VIR) is a unique initiative by GSInC to harvest potential ideas and innovation in a very systematic manner. Keeping in line with the ethos of Digital India, the VIR is an online platform where innovators and entrepreneurs can register their ideas virtually and source the required support to achieve the expected results. VIR will also function as an innovation bazaar where young innovators will display prototypes and directly talk to prospective buyers.

Why is Virtual Innovation Register good for Innovators & Businesses?

- Safeguarding unique innovations and ideas
- Validation of idea and support from experts
- Hassle-free digital registration from the comfort of home or office

Innovations and ideas can be registered under VIR in two categories; New Ideas and Startups. While the former allows individuals to submit their innovation and ideas, the latter allows already functioning start-ups to register with VIR and enjoy a host of benefits.

Benefits of Registering New Ideas Under Virtual Innovation Register:

- Intellectual Property Rights support
- Support for commercialization
- Pitching to prospective buyers

Benefits of Registering Your Start-up Under Virtual Innovation Register:

- Collaboration with mentors and experts
- Support for raising Funds
- Access to resources (Incubation, Co-Founders, etc.)

The adequate promotion and spreading the awareness about the VIR bore fruits. The VIR saw registrations from 48 start-ups, as well as, submission of 237 new ideas by individuals across all ages and walks of life.

Identified as one of the most significant tools to rope in game-changing entrepreneurial ideas from about anyone in the state, VIR is integrating technology and an iron-will to nurture a strong start-up ecosystem in Goa.

5.2 Scheme for Patent Filing under VIR

The scheme aims to promote awareness and adoption of Intellectual Property Rights amongst the students and innovators. An applicant under this Scheme shall be eligible for support of up to Rs. 10,000 for filing a provisional patent application through the aforesaid patent agents/ firms.

INTRODUCTION:

The mandate of GSInC is to augment knowledge and creativity through identification, support and incubation of technologies and traditional practices.

Students, young entrepreneurs, emerging startups, having innovative ideas with a vision to transform them into scalable products are truly the main driving force behind rapid economic growth, increased productivity, social transformation as it also helps in reshaping and redefining almost every aspect of our lives and environment.

Scheme to provide Grant in Aid for prototyping technology-based innovative projects/ideas under the Virtual Innovation Register (VIR) to make it affordable for Students, Startups, Innovators, Research Faculty& Entrepreneurs who require the necessary support in converting Ideas into marketable products.

OBJECTIVES:

1. The scheme is primarily formulated with the objective to support and finance Students, Startups, Innovators, Research Faculty and Entrepreneurs, having technology based innovative ideas which they wish to translate into working and marketable prototypes/products.
2. The scheme aims to encourage innovators to achieve new heights in sustainable technologies by providing grant in aid for prototyping their product/ideas.
3. To create a vibrant innovation ecosystem by supporting faster implementation of innovative ideas and converting the same into products/ processes.

ELIGIBILITY CRITERIA FOR AVAILING BENEFITS UNDER THE SCHEME:

1. Students, Startups, Innovators, Research Faculty & Entrepreneurs [collectively, "applicant" (s)] may apply under this scheme.

2. The applicant must be an Indian Citizen.

3. The Applicant may be a final year student working on a college project or a High School or Higher Secondary School student working on a school project participating either in State or National level competitions from the State of Goa.

4. The project should relate to hardware or software-based product innovation.

5. The proposals preferably in the following focus sectors shall be encouraged: Green technology, Clean energy, Industrially utilizable smart materials, Waste to Wealth, Affordable Healthcare, Water & Sewage Management, Renewable Energy sources, Electric Vehicles, Smart Cities, Agri-tech, Meditech, Health care tech and Digital media, ITES.

6. The proposed innovative idea/ project in the form of a product/solution must be associated either with Academics, Industry or the Government.

7. The applicant shall be required to provide a letter of intent (LOI) in case the proposed idea/project is associated with the Industry or the Government.

8. The applicant must be working on a hardware or software-based Product Innovation.

9. The applicant must be registered under the Virtual Innovation Register (VIR) as a New Idea.

An applicant under this Scheme shall be eligible for a grant of up to Rs. 20,000/- per project.

THE GRANTS SHALL BE PERMITTED TO BE USED ONLY FOR THE FOLLOWING PURPOSES:

1. Prototyping Material:
   Grant shall be utilized for purchasing tools and materials required for building the prototype.

1. Academic Projects:
   An individual applying through Educational Institutions will be permitted to use the prototype grant only for academic projects.

PATTERN OF ASSISTANCE OF THE SCHEME:

1. Project quotes are required to be submitted to GSInC before the release of the grant.
2. The grant shall be disbursed as single installment to the concerned applicant/grantee whose prototyping grant is approved by the duly constituted Advisory Committee of GSInC.
3. Copies of bills/invoices generated for purchasing materials and tools for building the prototype must be maintained and submitted to GSInC.
4. The entire amount of the grant approved within the same financial year, should be utilized before the month of March of the subsequent year and should be used only for the purpose for which it is sanctioned.

PROCEDURE FOR APPLYING UNDER THE SCHEME:

1. The applicant is required to submit an online Application Form which is available on: www.goastateinnovationcouncil.com under the Virtual Innovation Register (VIR) and sign up as a New Idea.
2. It is mandatory for the applicant to apply under the afore-mentioned portal to claim benefits under the Virtual Innovation Register.

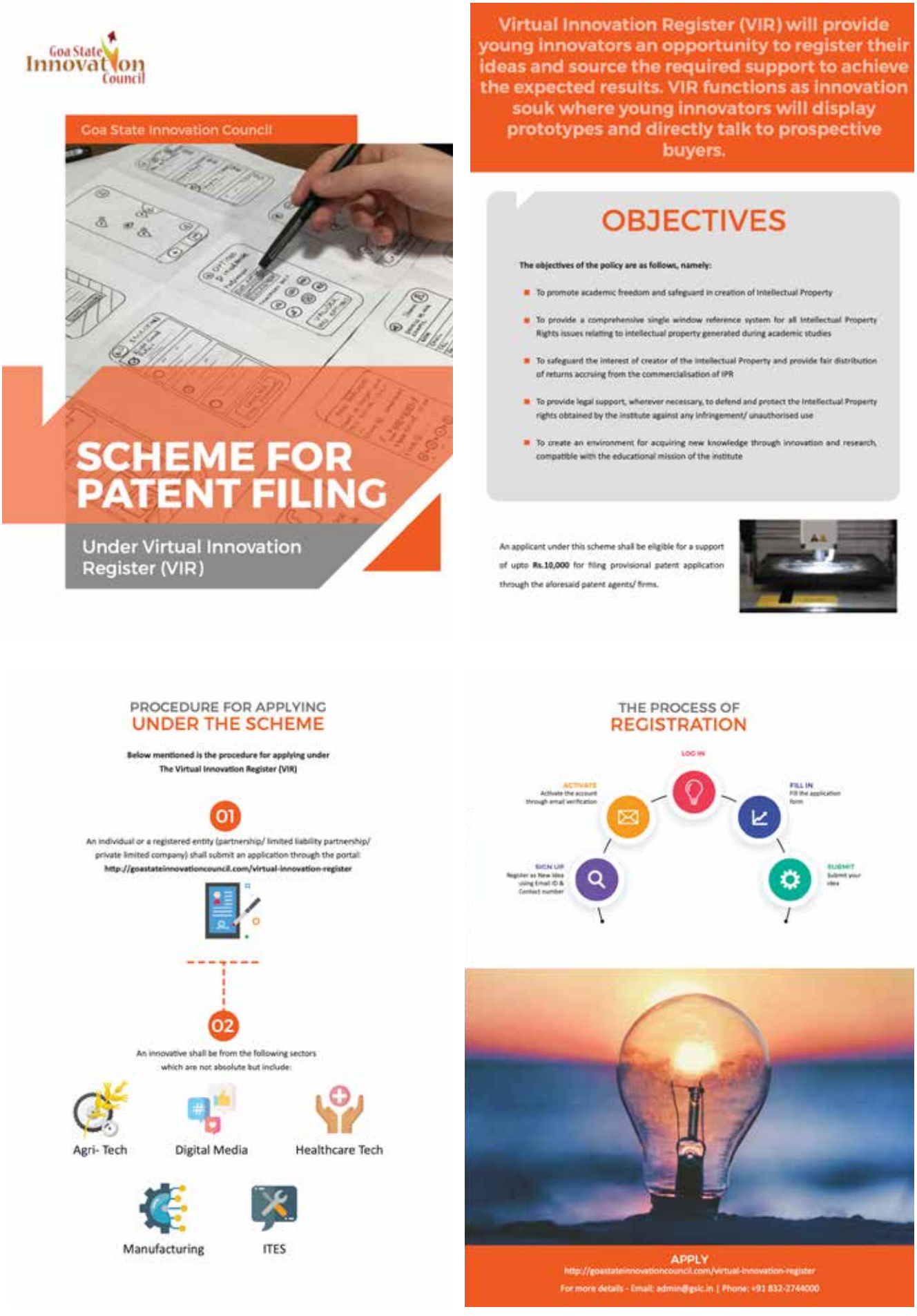
SELECTION COMMITTEE:

1. The Selection Committee of the Goa State Innovation Council shall hold periodic meetings to approve projects for providing Grant In Aid for prototyping of innovative projects.
2. The Selection Committee for sanctioning the grant shall consist of a Chairman and two Members who will be appointed by the Chairman of the Goa State Innovation Council. This Committee shall meet as often as required and recommend grants for prototyping to the Council.
3. The intimation of decision shall be made to the applicants via email within 7 number of working days from the date of such meeting.
4. All decisions regarding selection shall be final and binding.

TENURE OF THE SCHEME:

The scheme shall be valid for a period of 3 years w.e.f. 1st November, 2020.

Photograph: 5.2: Scheme for Patent Filing



5.3 Scheme of financial assistance for prototyping under VIR

Scheme to provide financial assistance for prototyping technology-based innovative projects/ideas under the Virtual Innovation Register (VIR) an applicant under this Scheme shall be eligible for financial assistance of up to Rs. 20,000/- per project.

INTRODUCTION:

The mandate of GSInC is to augment knowledge and creativity through identification, support and incubation of technologies and traditional practices.

Students, young entrepreneurs, emerging startups, having innovative ideas with a vision to transform them into scalable products are truly the main driving force behind rapid economic growth, increased productivity, social transformation as it also helps in reshaping and redefining almost every aspect of our lives and environment.

Scheme to provide Grant In Aid for prototyping technology-based innovative projects/ideas under the Virtual Innovation Register (VIR) to make it affordable for Students, Startups, Innovators, Research Faculty& Entrepreneurs who require the necessary support in converting Ideas into marketable products.

OBJECTIVES:

1. The scheme is primarily formulated with the objective to support and finance Students, Startups, Innovators, Research Faculty and Entrepreneurs, having technology-based innovative ideas which they wish to translate into working and marketable prototypes/products.

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2. The applicant must be an Indian Citizen.

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4. The project should relate to hardware or software-based product innovation.

5. The proposals preferably in the following focus sectors shall be encouraged: Green technology, Clean energy, Industrially utilizable smart materials, Waste to Wealth, Affordable Healthcare, Water & Sewage Management, Renewable Energy sources, Electric Vehicles, Smart Cities, Agri-tech, Meditech, Health care tech and Digital media, ITES.

6. The proposed innovative idea/ project in the form of a product/solution must be associated either with Academics, Industry or the Government.

7. The applicant shall be required to provide a letter of intent (LOI) in case the proposed idea/project is associated with the Industry or the Government.

8. The applicant must be working on hardware or software-based Product Innovation.

9. The applicant must be registered under the Virtual Innovation Register (VIR) as a New Idea.

An applicant under this Scheme shall be eligible for a grant of up to Rs. 20,000/- per project.

THE GRANTS SHALL BE PERMITTED TO BE USED ONLY FOR THE FOLLOWING PURPOSES:

1. Prototyping Material:
   The grant shall be utilized for purchasing tools and materials required for building the prototype.
2. Academic Projects:
   An individual applying through Educational Institutions will be permitted to use the prototype grant only for academic projects.

PATTERN OF ASSISTANCE OF THE SCHEME:

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4. The entire amount of the grant approved within the same financial year should be utilized before the month of March of the subsequent year and should be used only for the purpose for which it is sanctioned.

PROCEDURE FOR APPLYING UNDER THE SCHEME:

1. The applicant is required to submit an online Application Form which is available on www.goastateinnovationcouncil.com under the Virtual Innovation Register (VIR) and sign up as a New Idea.
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3. The intimation of the decision shall be made to the applicants via email within 7 number of working days from the date of such meeting.
4. All decisions regarding selection shall be final and binding.

TENURE OF THE SCHEME:

The scheme shall be valid for a period of 3 years w.e.f. 1st November 2020.

Photograph: 5.3: Prototyping Grant Scheme Brochure

Goa State Innovation Council

Goa State Innovation Council

CRAFT ALL PIECES

With Our Prototyping Grant

MAKING RAPID PROTOTYPING POSSIBLE

Goa State Innovation Council (GSInC) funds student, start-ups, innovators, research faculty & entrepreneurs with a prototyping grant of Rs.20,000/- to purse projects with innovative product-based solutions.

OUR MISSION

Our mission is to support prototyping and make it affordable for Students, Start-ups, Innovators, Research Faculty & Entrepreneurs who require the necessary support in converting Ideas into scalable products.

WHO IS ELIGIBLE?

GRANT CAN BE USED FOR

Prototyping Material

Hardware to be hacked

GRANT CANNOT BE USED FOR

Marketing & Promotions

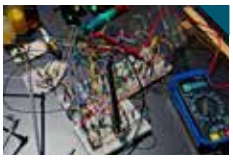
Outsourced Product Development

Consultancy Services

Patent Registration

MAKING RAPID PROTOTYPING POSSIBLE

Goa State Innovation Council (GSInC) funds student, start-ups, innovators, research faculty & entrepreneurs with a prototyping grant of Rs.20,000/- to purse projects with innovative product-based solutions.



OUR MISSION

Our mission is to support prototyping and make it affordable for Students, Start-ups, Innovators, Research Faculty & Entrepreneurs who require the necessary support in converting Ideas into scalable products.

WHO IS ELIGIBLE?

GRANT CAN BE USED FOR

Prototyping Material

Hardware to be hacked

GRANT CANNOT BE USED FOR

Marketing & Promotions

Outsourced Product Development

Consultancy Services

Patent Registration

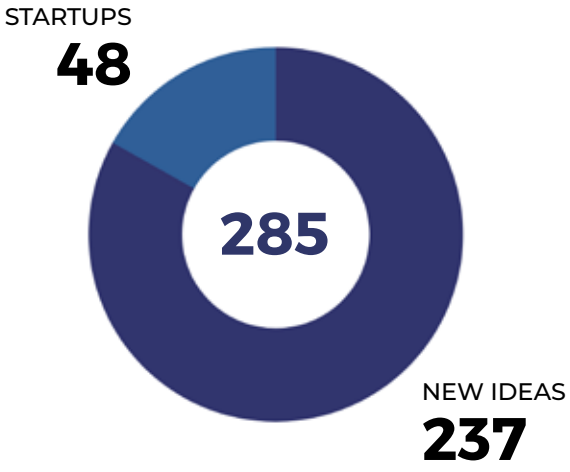
APPLICATION PROCESS

REGISTRATION PROCESS

REGISTER AT
goastateinnovationcouncil.com/virtual-innovation-register
For more details - Email: admin@gsic.in | Phone: +91 832-2744000

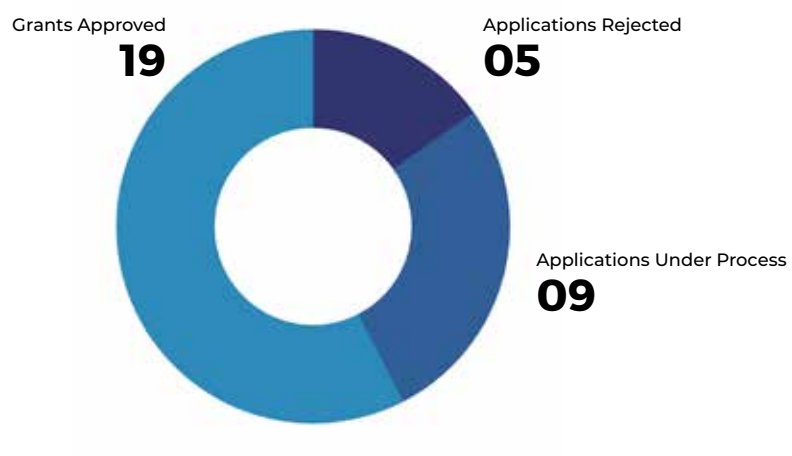
5.4 Status Report

The Virtual Innovation Register has successfully registered several innovative start-up ideas. Out of the total 285 ideas registered on VIR, 48 were from established start-ups and 237 were new ideas. The number of applications for Prototyping Grants processed are 19. The Provisional Patents accepted are 6. The below chart portrays the potential of entrepreneurship in Goa. It also reflects Virtual Innovation Register's success in reaching out to people and tapping new ideas.



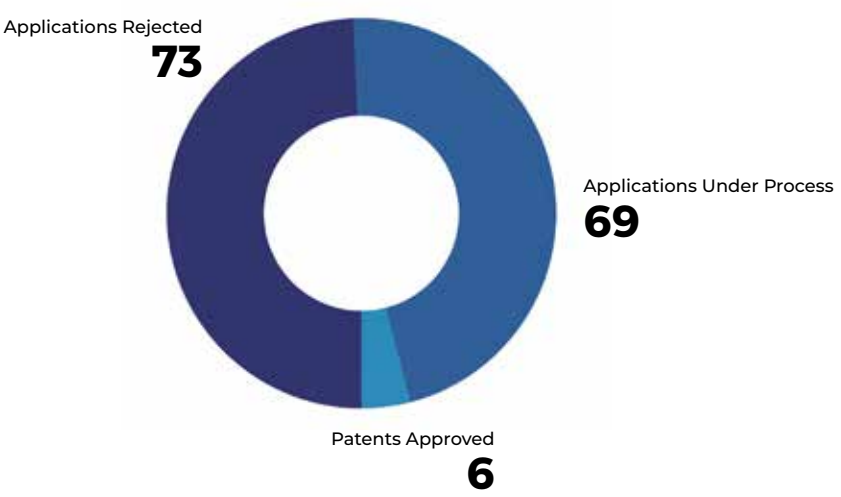
PROTOTYPING GRANTS

Applications Received
33



PROVISIONAL PATENT

Applications Received
148



5.5 Beneficiaries of the Provisional Patent Grant

01: Veterinary device for heating and cooling the body of animals to get their temperature back to normal in an accelerated time frame

Innovator Name:
Tejas Barve

Contact No:
8080586846

Contact Email:
barvetejas@gmail.com

Introduction:
We have Designed and developed two devices which we are currently using for Treatment which helps us in regulating the animals temp in a faster rate and gets it back to normal body temp of animal within a very short amount of time.

This machine when used in a high fever case cools the saline fluid to a specific temp and then this cold fluid enters the animal body Intravenously which then goes into the heart where all the blood from all the parts of the body comes and mixes with this cold blood fluid mixture thereby cooling the core body temp and then the remaining parts of the body come back to the normal temp. The same phenomenon happens when the body temp is below normal and needs to be brought back to normal using the saline heating machine.

Support expected in future:
Need assistance in getting contacts for human approval of the machine.

02: Design intervention - paper bag that can carry a weight upto 10kgs

Innovator name:
Sachin Gangadharan

Contact No:
9633747004

Contact Email:
lafabrica.craft@gmail.com

Introduction:
Every supermarket gives out hundreds, if not thousands, of carry bags each & every day. However most of the time, these carry bags are not designed to sufficiently carry heavy weight. Despite an increase in plastic bans around the world, there have been no design interventions in the space of paper bags or paper packaging to improve its quality or decrease its per piece price. We are here to bridge this gap. Our specially designed bags are the future of paper bags that can carry real weight, including wet items & are 100% recyclable.

Our product tackles the issue of paper bags that are not strong enough to carry weight and wet items. This is done through the innovative design of the reinforced center fold as opposed to the traditional paper bag structure. It is designed as an every day usable object rather than something meant only for the elite conscious consumer, yet it is aesthetically pleasing. Humble bag is Bio-degradable and 100% recyclable.

Support expected in future:
We would like to secure patents on our rest of the products there for giving a road map to achieve this would be great.

5.6 Beneficiaries of the Prototyping Grant Scheme

Table 5.6 - List of Beneficiaries of the Prototyping Grant Scheme

Sr. No.	Unique Registration Number	Title of Project
1	140	Construction Material From Iron Ore Tailings
2	270	iAC - IoT that makes Exiting Air Conditioners Energy Efficient
3	307	Hot Cup Spillage Protector
4	311	Health Box
5	312	Design and Development of Drone for Spraying Pesticides on Coconut Tree
6	313	Atmospheric Water Generator
7	316	Electronic Stethoscope
8	317	Dronile – Drone Missile Combo
9	319	A Facemask with a Filtration System
10	320	Design and Development of Multi-Purpose Vibration Test Rig
11	321	Karna - Semiautonomous Unmanned Ground Vehicle (UGV) for Military and Tactical Operations
12	327	Cake Making and Baking using 3D Printing Technology
13	328	Smart Gate Automation
14	329	Smart Agriculture Using IOT
15	333	Coconut Harvester Robot
16	334	Diabetic Retinopathy Detection using Machine Learning
17	338	Image Processing Technique to Detect Rice Disease (Brown Spots)
18	339	Breast Cancer Detection using Machine Learning Techniques
19	342	Advance Detection of Cataract Surgery using AI

01. Construction Material From Iron Ore Tailings

Unique Registration Number: 140

Name of Applicant/s:

Shri Satyesh Kakodkar
Smt Jasmine Karapurkar
Shri Divyesh Naik
Shri Uddhav Mulgaokar
Shri Saishwar Naik
Shri Sanat Mhapne

Name of Mentor/s:

Shri Satyesh Kakodkar

College:

Don Bosco College of Engineering

Address:

Fatorda -Margao Goa

Contact Number:

9822384689

Contact Email ID:

satyeshk@gmail.com

Project Objective:

i. To tackle environmental impacts caused due Iron Ore Tailings on air and water.
ii. To replace sand partially or fully in concrete. Extraction of sand has caused environmental effect and hence its required for alternative material.
iii. To utilize the Construction and Demolition waste in concrete.
iv. To manufacture a green, sustainable, durable and economically viable product by using Iron Ore Tailing and solving air and water pollution.

8. Abstract:

The infrastructure industry is booming in the state of Goa, leading to increased demand for concrete, which leads to over extraction of sand. The availability of sand is a major issue due to ban by environmental enforcing authorities. There is mismatch between supply and demand is leading to skyrocketing the price of sand and other materials.

Disposal of iron ore tailing and low-grade ore is a serious issue of concern in the state of Goa. In this iron ore tailings which are causing environmental hazards will be utilized thereby solving one major issue (land, water and air pollution). The local fields as well as air and water of the surrounding area get polluted due to these tailings.

To tackle this issue, attempts will be made to utilize Iron Ore Tailing in manufacturing of concrete. The physical and chemical properties of the iron ore tailing have been analyzed and it is observed that the Iron ore tailing can be used as construction material.

Different Trials will be carried out to find out exact percentage of tailing which can be used in concrete.

In the research attempts will be made to use mine waste and manufacture the products which are economically viable.

Photograph: 5.6.1: Prototype of Construction Material from Iron Ore Tailings

9. Project Outcome/Result/Findings:

i. The physical properties analyzed in the laboratory have shown positive results and hence we can use Iron Ore tailings in construction as one of the materials.
ii. The physical tests like Sieve Analysis, Specific Gravity, Moisture Content, Atterberg Limit, Optimum Moisture Content using Modified Procter Test, Permeability of soil.
iii. The chemical analysis is also carried out wherein Fe, SiO_2, Al_2O_3, MgO, etc. are also analyzed.

10. Innovative Approach:

Apart from IOT, C & D waste is also used in our project by which we are also tackling the issue of disposal of C& D. The efforts are put in to reduce the cost of manufactured product and make it more environmental friendly.

02. iAC - IOT that makes Exiting Air Conditioners Energy Efficient

Unique Registration Number: 270

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Project Objective:
To Make Air Conditioners Better Energy Efficient.

Abstract:
iAC is an IOT which controls Air Conditioners. It works on our cloud software in real time basis, resulting in AC consuming 50% less of its electricity consumption by maintaining the same desired room temperature.

Project Outcome/Result/Findings:
The Prototype developed is monitoring all the power and thermal data in real time. The control hardware / IoT is ready and installed on an AC for initial trials.

Innovative Approach:
Once we introduce iAC in the market, the AC users can save on monthly electricity bills by just having iAC for their ACs. They need not buy new Energy Efficient Star rated AC, spend huge capital cost, to cut down their operational cost. For all AC users, iAC will be an economical option to reduce their monthly electricity expenses over buying new AC.

03. Hot Cup Spillage Protector

Unique Registration Number: 307B

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Abstract:

The hot cup spillage protecting device aims for providing protection against spilling of hot fluids while carrying them. The device aims for provide protection to small children, blind persons or elderly whose hands shake. The device defines a roofless enclosure having absorbent pads therein to soak the fluid. The enclosure has three walls fixed while the one wall has openable door.

Project Outcome/Result/Findings:

i. We have been contacting many manufacturers nearby.
ii. They have been demanding very high price more than 70,000 INR.
iii. One manufacturer we found, has agreed to make one prototype in 20,000 INR, however his manufacturing plant was shut down due to Covid-19.
iv. Hence, the prototyping is under process.

Innovative Approach:

We are using stainless steel to make the project so that expenses are low.

04. Health box

Unique Registration Number: GSIC - 311

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Project Objective:
Medical Clinic that can be setup within days, fully-equipped, sturdy & cost-effective. Developed in consultation with experienced professionals in Healthcare and Architecture. With the primary customer being the Government, Hospitals and NGO's

Abstract:
With due respect, it is to say that I, Gaurav Pai Kane have developed a product (Health Box) for the health sector of India. I believe it can help our doctors face the overwhelming situation they are in today and prepare for the challenges that tomorrow may bring. Health infrastructure has always been an expensive resource to build and I aim to make it affordable. In 2013 our Honorable Prime Minister Shri Narendra Modi, launched the National Health Mission which aims the achievement of universal access to equitable, affordable & quality health care services that are accountable and responsive to people's needs. I believe this product will help India take a huge leap forward in achieving this goal.

My product (Health Box) is a primary health clinic that can be setup within days, fully-equipped, sturdy & cost-effective. It has been developed in consultation with experienced professionals in Healthcare and Engineering to make the product pertinent to the current requirements of the health department.

The clinic will be housed within a 20ft/40ft ISO CSC approved container, which makes it Secure, Portable & Easy to power. It also allows the buyer flexibility in design, future planning and investment as containers can be stacked one over the other which allows expansion at the same location as the need arises. This product is designed to have a life of minimum 15years from date of manufacturing.

I would like to offer the government, hospitals & NGO's this product for their current and future requirements.

Project Outcome/Result/Findings:

i. Over the last 6 Months I have collected support from doctors from various hospitals all over India (Nanavati & AIIMS)
ii. We are in process to get an order and appropriate funding from the government of Maharashtra for their 1st ever mobile clinic to serve the various villages in the state
iii. As per our estimate we shall receive the order by Mid May and deliver the product by mid-July.

Innovative Approach:

For years the government has required affordable and portable medical infrastructure. Our product addresses that very point by offering them a clinic that has flexibility in design, future planning and investment as containers can be stacked one over the other which allows expansion at the same location as the need arises. Another advantage is that it can be used for any department in the medical industry that requires it.

05. Design and Development of Drone for Spraying Pesticides on Coconut Tree

Unique Registration Number: GSIC - 312

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Project Objective:
The objective of our project is to develop an unnamed aerial vehicles (UAV) to overcome the harmful effects of pesticides on the farmers (while spraying).

Abstract:
Agriculture in India constitutes over 60% of the occupation. It serves to be the backbone of Indian economy. It is very important to boost the efficiency and productivity of agriculture by simultaneously providing safe cultivation of the farmers. The Indian Agricultural sector is that the most vital sector as it amounts to a staggering 18% of India's Gross Domestic Product (GDP) and also provides employment to 50% of the national human workforce.

Our country depends on agriculture such a lot, has yet to tap into the potential of agriculture, thanks to improper methods of monitoring crops and the irrigation patterns and also the pesticides required to be applied. Operations like spraying of pesticides, sprinkling fertilizers are very tedious. Though spraying of pesticides has become mandatory it also proves to be a harmful procedure for the farmers.

Farmers, especially once they spray pesticides, take too many precautions like wearing appropriate outfits, masks, gloves etc. so, it doesn't cause any harmful effects on them. Avoiding the pesticides is additionally not completely possible because the required outcome must be met.

So, use of robots in such cases gives the simplest of the solutions for these problems, together with the specified productivity and efficiency. In India, there are over 35 drone start-ups that are working to boost the technological standards and reduce the prices of agricultural drones. This project aims to develop Unmanned Aerial Vehicle (UAV) for overcoming this problem and also spay large amounts of pesticides within smaller interval of your time using quad-copter.

Project Outcome/Result/Findings:

i. In this project we have designed an agricultural drone for spraying pesticides on the coconut tree.
ii. It will help to reduce the human efforts.
iii. This will help in reducing the time required for spraying pesticides.
iv. It minimizes risk of life since the humans are not required to climb the tree.
v. The drone is completely operated by the transmitter and receiver within the range of signal.
vi. If we are flying the drone far away, then the drone will not work properly.

By successful implementation of such project affective spraying of pesticides can be achieved.

i. The exposure of highly toxic pesticide to human can prevented.
ii. This can also be used in places where laborers are hard to find.
iii. One can hasten the pesticide spraying process and cover large areas in short time.
iv. Encounters with venomous snakes, which can be found regularly in fields can be prevented.
v. As spraying is done from lower altitude, environmental pollution can be reduced.
vi. Apart from spraying pesticides on coconut tree, it can also be used for spraying pesticides/ water on other trees/plants.
vii. Also by looking at current situation this drone can help in sanitizing large areas.

Innovative Approach:

To spray large amount of pesticides within small interval of time using quadcopter on coconut tree.

06. Atmospheric Water Generator

Unique Registration Number: 313

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Project Objective:
The main objective of the project is to generate water at minimum cost while making the machine self-sufficient. By keeping in mind the 4 following points:

i. Aim to generate 36L per day (i.e. 1.5L per hour).
ii. Aim to also keep the cost of water generated to a minimum.
iii. Reduce particulate matter and purifying the air.
iv. For every household to be independent with clean drinking water.

Abstract:
An atmospheric water generator and system for condensing and collecting moisture contained in the air serves to cool and dehumidify the air. The collected water is then purified and can be stored in a tank. It also acts as an air conditioning unit since cool air is dispersed. The water generator uses the principle of cooling the air and getting it below its dew point temperature so as to extract the water which is in the form of humidity; from it. The cooling is done by vapor compression cycle that includes a heat exchanger, condenser, compressor and expansion valve along with the necessary auxiliary sensors and metering devices. The blower lets air into the system enclosure at a constant ow rate which hits the evaporator (heat exchanger) thus cooling the air to the required dew point temperature. The water vapor from the air thus condenses on the cooling coils, fins and baffles and is then collected in a storage tank.

As the system contains 3 stage filtration system the water obtained is of the highest grade. The filtration system can also be accessed for purifying undrinkable water or regular tap water thus providing additional usability. The cool air which is let out of the enclosure also cools the surrounding thus acting as an air conditioning unit.

Project Outcome/Result/Findings:

We visited a lot of farms and most of the farmers were complaining about their dependence on the rains for their produce of crop, and how die to the recent changes in weather and erratic rainfall they were facing a lot of economic problems and stress. So we thought of an idea where we could produce water that could be used both for irrigation as well as be potable and being easily available at a low cost so everyone could benefit from it. 99.7% of the water available to us is unusable, of the 0.3% left a majority of the portion is locked up in the polar caps and ground water which is ever depleting. Thus Water extraction from air is the current best possible future proof solution.

i. The design of our machine is so optimum that the use of regular servicing is eliminated thus making it self-sufficient for a considerable amount of time.
ii. The current water generation machines are very costly and non-viable for common household use.
iii. Our machine defeats this fact as it can run on low power and is considerably cheaper.
iv. The water obtained is of the highest grade i.e. Type I water, the purest grade of water, is also referred as ultra pure water.
v. In hot humid areas it will assist in increasing the ambient comfort level as the air exiting the system is of lower temperature.
vi. The air cycled through the machine will get purified and cleaned thus making it healthier to breathe.

Innovative Approach:

The main objective of the project is to generate water at minimum cost while making the machine self-sufficient. By keeping in mind the 4 following points :

i. Aim to generate 36L per day (i.e. 1.5L per hour).
ii. Aim to also keep the cost of water generated to a minimum.
iii. Reduce particulate matter and purifying the air.
iv. For every household to be independent with clean drinking water.

We will be using copper tubes (Beryllium Copper C17200) as it is the best thermal conductor of heat and will give us the highest thermal efficiency and rate of heat exchange.

For our shell casing we have chosen Aluminum as it has a high thermal conductivity, is corrosive resistant and is cheaper than copper.

For our Condensate tank we have chosen to use HDPE (High density Polyethylene) which is corrosive resistant and will have a longer life.

For our refrigerant we chose R407C as it is an we want our machine to be environmentally friendly and R407C is proven to be ozone safe. R407C is also economically more viable as it non-toxic, Non-flammable and non-corrosive

07. Electronic Stethoscope

Unique Registration Number: 316

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Project Objective:
The objective is to make a user-friendly electric stethoscope which will have greater precision in calibration.

Abstract:
Integrating Physics with Medical Science has given birth to the field of Biomedical instruments. This has served as a boon for diagnosing and treating diseases. In this project, we have studied Physics of four biomedical instruments namely - X-ray, Computer Tomography (CT), Positron Emission Tomography (PET) and Magnetic Resonance Imagine (MRI). Using the observations, a low cost electronic stethoscope is constructed using some simple components.

Project Outcome:
Our aim here is to get better amplified signal on screen digital output with capability of transmission over long distance.

Innovative Approach:
Our approach is to get best possible amplifier configuration with Pizzo sensors.

08. Dronile – Drone Missile Combo

Unique Registration Number: 317

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Project Objective:
A Turbofan Based Missile capable of hovering at fixed location in DRONE MODE or SURVEILLANCE MODE and immediately switching to MISSILE MODE for destructing the target.

Abstract:

i. Communication gap and Human interference may lead to unnecessary brawl and man to man miscommunication aggravating problems.
ii. Most often encountered problem is the time gap between a surveillance by drone - command from base- launching of missile.
iii. Increasing the scope of surveillance by high range cameras.
iv. Eliminating wildlife/enemy threat for human soldiers in forested, mountain or wooded areas. Local vendors with professions like videographers, photographers, surveillance face difficulties in buying advance drone at higher cost, we aim to make it cost effective and affordable.
v. Battery backups have always been a matter of concern with current models available today.
vi. Long range areas take much time for surveys due to lack of speed.

Project Outcome/Result/Findings:

We have reached the stability part of the prototype and now Focusing on multiple testing to make it scalable.

Innovative Approach:

i. Image Processing & AI-Based
ii. Auto enemy detection
iii. Fail Safe to come back to Launchpad.
iv. Fire &Forget and Manual Control
v. Immediate Mission Abort
vi. Switching To Drone Mode aborts missile mode and prevents harm to both target and the UAV.
vii. Lessens the chances of false aiming.
viii. No GPS, therefore cannot be tracked.
ix. Uses basic trigonometric calculations to analyze its position.
x. Vertical Take Off &Vertical Landing
xi. Altitude Hold For Surveillance & Mission Analysis

09. A Facemask with a Filtration System

Unique Registration Number: 319

Medical workers and first responders in the World are short on the supply of N95 protective face masks and shields. These essential components of personal protective equipment (PPE) help safeguard clinicians from accidental droplets containing coronavirus as they tend to patients, work in labs, and assist at drive-through testing facilities. The coronavirus is more contagious than the flu, and it is critical that these first responders get the medical supplies they desperately deserve.

The COVID 19 outbreak has shown the W.H.O., the Governments, And the humans at large that however prepared we are it is always less, and that we need to continuously work to upgrade and update our techniques and technology so that our fight back infrastructure is strong and efficient.

We have seen countries like the USA, Italy etc. what they had to face for not being well prepared with the type of medical and social approach it needed. It is important that we prepare ourselves from the grassroots level with all medical requisites so that we need not face poor quality products at hiked prices.

The major problem faced by our medical staff is since they have to use a high protection (like N-95) that increases the treatment cost, secondly since there is a high demand for such PPE's the is a shortage of such safety Equipment's. we keep such serious issues unattended then it may direct us to a shortage of quality safety instruments which in turn will be a disastrous if thing go the wrong way.

In late 2019, a novel coronavirus emerged in China. Since then, it has rapidly spread throughout the world. This novel coronavirus is called SARS-CoV-2 and the disease that it causes is called COVID-19. While some with COVID-19 have a mild illness, others may experience difficult breathing, pneumonia, and even respiratory failure. Older Individuals and those with underlying health conditions are most at risk.

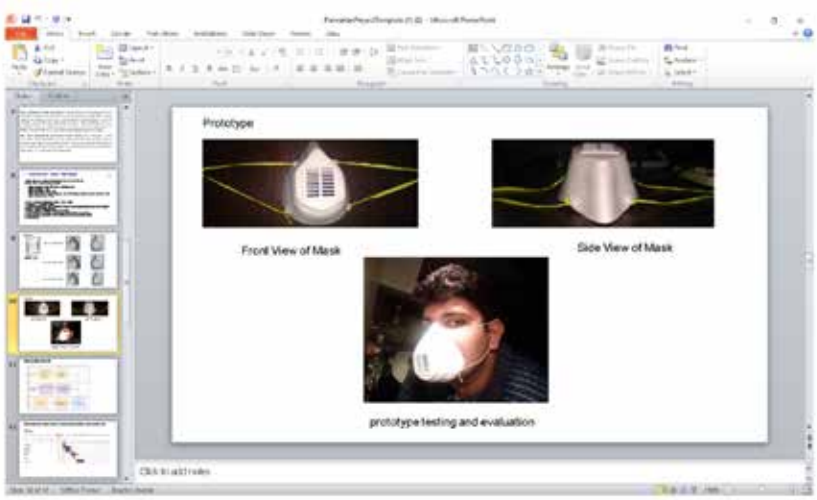
You may have heard a lot recently about using face masks to prevent infection. We have developed a mask which is equivalent to N95 mask. Our mask filter out 95 percent of very small particles. This includes viruses and bacteria of particle size of 0.05 micron. The respirator itself is generally circular in shape and is designed to form a tight seal to your face. Elastic bands help hold it firmly to your face. Some types may have an attachment called an exhalation valve, which can help with breathing and the buildup of heat and humidity.

Our production process involves 3D printed thermoforming die which is used to mould the PP sheet in the form of mask envelop and the detachable filtration system of grit size of 0.14 micron.

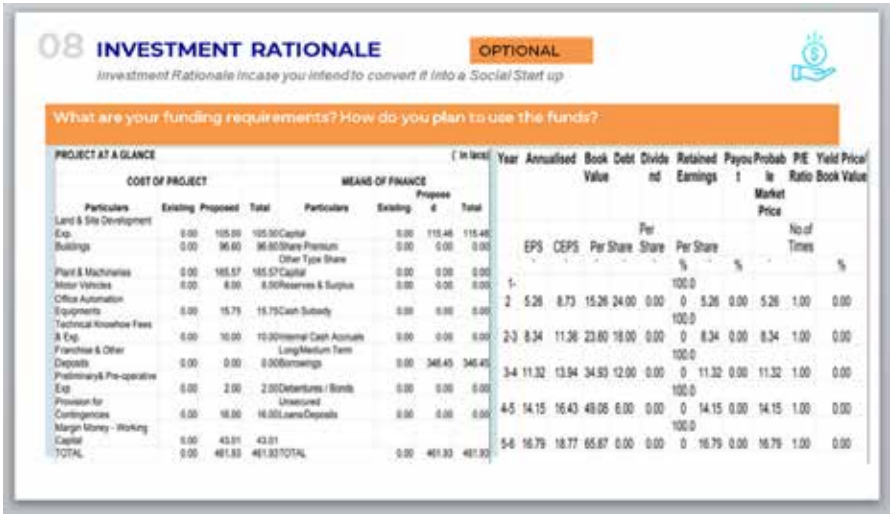
The mask that we have designed is a free size mask that means it can fit to people with any dimensions whether they are long chinned short chinned, whether they are round faced or rectangular faced It will fit all perfectly, since it will come with a high protection filter it will filter out every particle that will try to infiltrate through it. It will also come with a silicon lining so that it does not hurt the skin of the wearer after prolong wearing of the mask.

We have designed a mask where in one can immediately and very easily remove the filter slot and change it after the plastic mask is sanitized thoroughly. This not just makes the whole process of change the mask easy but also make is very cost efficient. Also does not make the mask sticky or sweaty since it is a plastic mask.

Photograph: 5.9.1: - Prototype of Facemask with Filtration system



Investment:



Year	D. S. C. R.			Debt / Equity		Total Net Worth	Return on Net Worth	Profitability Ratio					Asset Turnover Ratio	Current Ratio
	Individual	Cumulative	Overall	Debt-Deposits Debt	Equity as-Equity			GPM	PBT	PAT	Net Contribution	P/V Ratio		
	(Number of times)			(Number of times)		%	%	%	%	%		%		
Initial				3.00	3.00									
1-2	1.29	1.29		1.57	1.57	2.25		18.94 %	9.79%	6.95%	524.79	60.11%	1.55	1.03
2-3	1.62	1.45		0.76	0.76	1.26		21.87 %	14.34%	9.46%	564.70	55.44%	1.67	1.33
3-4	2.01	1.62	1.99	0.34	0.34	0.73		23.77 %	17.47%	11.24 %	644.24	55.35%	1.69	1.71
4-5	2.45	1.80		0.12	0.12	0.43		24.99 %	19.62%	12.48 %	723.78	55.27%	1.63	2.15
5-6	2.98	1.99		0.00	0.00	0.25		25.72 %	21.06%	13.33 %	803.32	55.21%	1.53	3.58

10. Design and Development of Multi-Purpose Vibration Test Rig

Unique Registration Number: 320

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Project Objective:
The objective of the project is to design and develop a multipurpose vibration test rig that will be capable of performing experiments on Force Transmissibility, finding Resonance frequency, Finding up to 2 natural frequencies of SM system and fault detection in rotating systems.

Abstract:
Any machine during its operation generate vibration due to the dynamic forces acting on it because of the operating conditions, structure and aging of the machine. These vibrations may create noise, abrasion in the machine parts, mechanical fatigue, degrade performance, transfer to other machines via floor or walls and may cause complete shutdown of the machine. For students, in order to better understand the implications of vibration, applications and importance of vibration testing and analysis, this modular multi-purpose test rig is an important tool. The intent of the approach to design a multipurpose vibration test rig is to enhance the knowledge about vibration and its characteristics, to provide practical experience to engineering students. The test rig facilitates the means to conduct the study of concept of Resonance in a system,

Force Transmissibility, finding Natural Frequency of a Spring Mass system and Fault Detection in rotating systems in a modular setup also capable of studying the effects of mass and spring rate . Open source code will be used to integrate the serial bus communication circuit and acquire data from the accelerometer sensors. Using Fast Fourier Transform, the data collected and processed will be used for vibration analysis to understand the characteristic amplitudes of vibration and its components at the most prominent machine elements. it is important to assess the quantity of vibration generated and transmitted during their true operating conditions.

Project Outcome/Result/Findings:

Progress till date

i. Design of individual experiments.
ii. Selection of components and accessories.
iii. Procurements of components.
iv. Fabrication of frame for setup of the experiments.
v. Currently coordinating with the assembly of components.

Innovative Approach:

The concept of a modular design will be applied to enhance the test rig ability by identification of problem and related engineering characteristics and narrow down the gap of theoretical and practical aspects of vibration by performing the experiments.

11. Karna - Semiautonomous Unmanned Ground Vehicle (UGV) for Military and Tactical Operations

Unique Registration Number: 321

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Project Objective:

The defence sector has to carry out reconnaissance missions to hunt the enemy troops and maintain safety and peace within the region but in some regions they have to pass through the dense tunnels where there is a danger of being attacked by the enemy troops. The purpose is to develop a system which could not only work in reconnaissance missions but also provide help in transportation of payloads from one base camp to another.

Abstract:

Semi-autonomous Unmanned Ground Vehicle (UGV) is designed and developed for some application specific missions to operate predominantly in hazardous environments developed for the military purpose. Our prototype UGV is built to undertake missions like border patrol, surveillance and in active combat both as a standalone unit (automatic) for payload transportation as well as in coordination with human-soldiers (manual). A person from a remote place can comfortably control the motion of the robot wirelessly (manual mode) and in situations where manual control is not prudent, the vehicle is capable of reaching the pre-programmed destination on its own (autonomous mode) via GPS way-point missions. A teleoperation link is created from the remote station to the UGV to control the maneuverability of the UGV.

12. Cake Making and Baking using 3D Printing Technology

Unique Registration Number: 327

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Project Objective:
To prepare a cake printer to expedite and customize the cake-making process.

Abstract:
The printer utilizes a normal 3D printer with some modifications to the extrusion system to accommodate the cake batter and also to make it food grade. The printer utilizes a piston-cylinder arrangement as the extruder and a stepper motor-driven lead screw assembly to control the piston-cylinder arrangement. The heating of the cake batter would be controlled by the printer's inbuilt heating components.

Project Outcome/Result/Findings:

i. The project aims to provide creative designs of cakes to people with little to no experience in baking. The only major inputs the printer requires would be the cake batter and the cake design.

ii. As of right now, testing has to be done on how to control the flow of batter, temperature, movement, and the location of a few components.

Innovative Approach:

The project uses simple control mechanisms to produce an innovative product. These simple control systems are what would help us keep the cost to a min.

13. Smart Gate Automation

Unique Registration Number: 328

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Project Objective:
To automate GATE operation using IoT and solar energy

Abstract:
It is observed that manual opening and closing of domestic gates is cumbersome, especially for a person who is to drive in or dive out in rainy season. So, we have implemented an idea of atomization of all such existing gate operations using traditional solar energy. Most important thing is that, this system is an attachment that easily couples with all type of already installed existing traditional metal gates. This has proved to be a big leap in reduction of the cost of system to the customer. Cost of the components that make up the system is decided based on the size and torque requirement. Use of cutting edge IOT technology has enabled assembling and disassembling a matter of 60 to 120 minute. Manual operations are supported by default and hence this system is viewed as an additional facility rather than water tight security. Mobile based APP is provided that helps to operate gate as and when required. This app communicates with the Gate system using end to end encryption and is a standalone system, hence will be completely secured against cyber-attacks. Packaging of the assembly is such that it is water and fire resistant. This system is mounted near the gate hinges (depends up on the space availability on site) considering minimum wear and tear and ease of maintenance.

Project Outcome/Result/Findings:

i. Fully solar based
ii. App based as well as manual operations.
iii. Quick and hassle free installation
iv. Works on existing traditional swing gate
v. Simple secure and easy to maintain

Innovative Approach:

IoT based automation approach has enabled use of solar energy and ease of app based operations. This not only eliminates use of remote control device but a big savings can be achieved by use of existing gate on as is where basis is. This project is now a big challenge to all existing players which are catering automation services on specific structured (sliding rail) gates at very heavy price (in lakh).

14. Smart Agriculture Using IOT

Unique Registration Number: 329

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Project Objective:
To automate the traditional practices of farming, with the help of IoT and AI, to be able to produce crops in better Quantity and Quality, in areas as small as a House Garden or Terrace, as well as areas as big as a farm, with a minimum or no need for human presence on site.

Abstract:
We plan to revolutionize the concept of building Smart Polyhouses in the field of Farming, which includes the designing of the Polyhouse to provide the combined benefits of both the existing Shade net and Plastic Polyhouses, and automating the Polyhouse to support the growth of plants from seed to feed.

A 2018 survey by www.analyticsindiamag.com has stated that the percentage of workers in the agriculture sector would drop to 25.7% by the year 2050, whereas the demand for agro products will only increase in the due course. Climate change and other factors have made the traditional methods of farming either ineffective or inefficient. Most of the crops are seasonal but their demand in the market exists throughout the year.

As the era of new technologies and automation is emerging in the world, it's but natural to automatize the agricultural industry as well. While doing so, IOT can play a very important role in agriculture. We are visualizing an IOT and smart agriculture system using automation. In addition, we would create an intelligent environment using some tools and maintain the conditions using IOT sensors capable of providing information about the agriculture field.

Today the World is understanding and accepting the concept for need of Smart farming. This project will allow farmers to control field conditions like temperature, soil moisture, irrigation, and intensity of light using an Advanced IOT app. The application put in use will be automated using AI, which will eliminate the need for human intervention.

Project Outcome/Result/Findings:

It has been observed that the plants when subjected to specific environmental conditions friendly to their growth, bloom to their full potential. The factors involved are mainly soil moisture, air humidity, temperature, light, and soil fertility. In the videos enclosed, the growth of the plants (Tomatoes and Chilies) has been shown in different conditions with dates. The plants were kept at different places, exposing them to varying intensities of light. It was found that the amount of energy transmitted for the plant in a particular direction may vary according to the color and intensity of the light.

Innovative Approach:

This project involves the use of the latest technologies of IoT like Soil moisture indicator, temperature indicator, camera, lights, irrigation system and so on. Efforts are being made to use AI in such a way that minimum human interference will be required to operate the system. It is also being kept in mind that the system created has a User-friendly Interface. The created system will have the scope of multi-directional improvement to accommodate future inventions/ innovations and smart products.

Comparing the growth of the plants within our Polyhouse with that of the external Environment:

15. Coconut Harvester Robot

Unique Registration Number: 333

Photograph: 5.15.1: Team members

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Mr. Clavon Joseph Mascarenhas
Mr. Lohit Gunagi
Mr. Rosh Fernandes
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Project Objective:
The Objective of our project is to create a mobile operated coconut harvester robot operated via Bluetooth. The main objective is to replace the use of joysticks and remote control-based system with Bluetooth technology to control the robot. Our project focuses on a light weight design that is portable, easy to clamp and remove from the tree. The project is based on wireless communication where the data from the mobile application is transmitted to the robot via Bluetooth connection.

Abstract:
As per the research, Asia has the largest population of coconut trees. It is one of the most useful tree providing us with food, cosmetics, medicine and building material. Goa has around 25,000 hectares of coconut plantations (1.32 per cent of the total area of the state) and produces over 124 million coconuts per year. The coconut climber, also known as “render”, climbs the coconut trees without any support or protection and harvests the coconuts. He must climb around 50-55 trees a day in a plantation. Often, to climb a coconut tree, skilled labor is required.
Sometimes, accidents can occur wherein the coconut climbers can slip and fall. During the rainy

season, the climbers cannot climb the coconut tree hence coconut trees remain unharvested leading to loss of business to the plantation owner. In this report, we present a mobile app operated coconut tree climber robot made from wood. The robot consists of two parts that is the robotic arm and a climber mechanism. The climber mechanism is designed with respect to an organ stand. In the design, four springs are used to clamp to the tree. A set of four wheels powered by four Johnson motors are used for up and down movement of the robot across the tree bark. The robotic arm is used to harvest/pluck the coconuts from the tree. It has three degrees of freedom and is driven by two MG996R servo motors. A grinder with 775 dc motor is fitted to the arm. The arm itself has a 360-degree rotation to it which is provided by a nema17 stepper motor. The arm can also move 360 degrees across the diameter of the tree. Microcontroller esp32 is used as a Bluetooth hub for the robot. Atmega2560 is incorporated to the robot for motor control. The overall body of the arm and the climber is made of wood. Operation of the arm and the robot is done using a mobile application developed by us. The app features include battery level indicator and buttons to operate the robot. The app is connected to the esp32 via Bluetooth. The robot is powered by lion batteries and it also has a backup power circuit.

Project Outcome/Result/Findings:

The latest technology in the field of robotics has lent a hand to produce an idea of a coconut tree climber robot. The robot will have the ability to navigate along the tree and pluck the coconuts. The project will have a chassis made of light metal material for the base and a cutter mounted on top of it. The movement of the robot across the diameter of the tree will be accomplished by the motors and spring action. Over and above, the project will be operated wirelessly through a mobile application. As we are focusing our market on large coconut tree plantation and the local people of Goa, the design of the robot will be easy to carry from one place to another, clamping to the tree will be uncomplicated and any non-professional person will be able to operate the robot. The coconut climber robot will improve the technology in the field of agriculture. This indeed will provide easy and safe harvesting of coconuts. The best material will be used to make the robot lightweight and portable. Best components will be incorporated to enhance the performance of the robot.

Innovative Approach:

The design below consists of two parts: the body framework to climb the coconut tree and the robotic arm to cut the coconut tree. The Robotic arm will have the ability to move around 360 degrees. The climbing framework will be consisting of 4 motors which will have the ability to move forward and backward. Coil springs will be attached towards it for proper grip and holding the frame in place. Battery backup will be provided in case the connection is lost the esp. 32 Bluetooth module will be connected to app Bluetooth. The Esp. 32 will be powered with Lithium Ion Battery based on its specifications. The esp. 32 will control the driver IC via H-Bridge circuit which will have the ability to move the DC motors in both the direction. Also it will control the other motors to which will be used for controlling the grinder and rotating the arm. The full controlling process will be done through App. The hexagon shaped will be used to give support for the following robotic arm which will be implemented further on Four motors will be place parallel to the x-shaped framework.

Photograph: 5.15.1: Prototype of Coconut Harvester Robot

16. Diabetic Retinopathy Detection using Machine Learning

Unique Registration Number: GSIC-334

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Project Objective:
To detect and classify different stages of Diabetic Retinopathy using screened retinal fundus images of the diabetic patients with the help of Machine Learning

Abstract:
Diabetic retinopathy is an eye complication that occurs only among diabetic patients and causes partial or complete permanent damage to their vision. Which is why timely detection and treatment being necessary to prevent further complication. Most of the time the time window for treatment is missed as the manual screening and detection takes around 3 weeks, also the results of manual diagnosis of DR aren't always accurate. Hence there is a serious need to reduce this 3

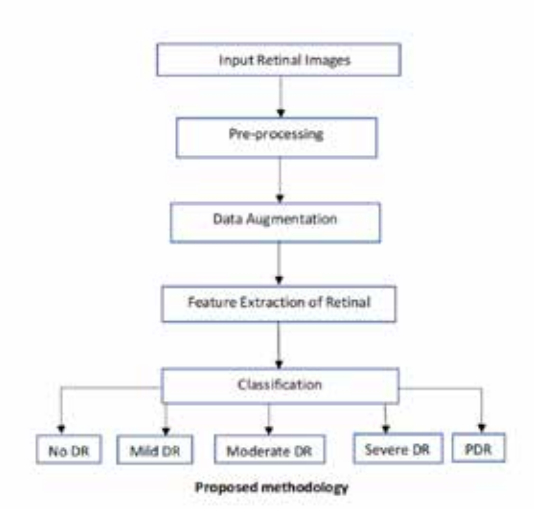
weeks' duration so that the patient and the doctor can start the treatment rapidly and scout for a more accurate result. We plan to accomplish this with the help of machine learning wherein the screened retinal fundus images would be fed to our machine learning model and it will classify if the particular eye has DR or not. If yes, then the level of DR would also be classified weather it is mild or moderate or severe based on the characteristics from the images. Hence this process will reduce the duration to few hours instead of few weeks which the manual process requires. Our process also increases the efficiency as the manual method might have some irregularities as they are physically scanned by ophthalmologist. This way the patient as well as the eye specialist can start timely treatment as the time window for the treatment gets increased. This will also reduce the cost for the patient and save the time of the doctor.

Project Outcome/Result/Findings:

The dataset of the screened retinal fundus images consisting of 35000 images has been fetched and preprocessing using different image preprocessing techniques like Gaussian blur and auto cropping is been accomplished. The user interface and web app is ready and the training of the machine learning model(CNN) is underway. The preprocessing techniques give successful results.

Innovative Approach:

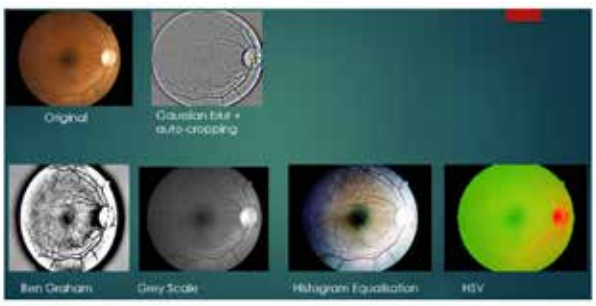
We train a machine learning model (ResNet50) with the help of 35000 sorted retinal fundus images and later test it with another set of mixed fundus images to classify the Diabetic Retinopathy disease and its severity levels. We then fine tune the final layers ML model to achieve optimal accuracy in classification of the disease and its severity levels.



Proposed methodology

Sorting & Classification:

Processing techniques:



17. Image Processing Technique to Detect Rice Disease (Brown Spots)

Unique Registration Number: GSIC-334

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Project Objective:

i. To detect the rice disease in early stages. To provide the proper pesticide and disease information.
ii. To provide disease identification without the help of expertise.
iii. To provide 24*7 facilities.
iv. To automate the process of disease identification and alerting the farmer.
v. To help farmers grow their production.

Abstract:
Rice/Paddy is the staple crop of India. India has the largest area under rice cultivation that includes the cultivation of brown and white rice. Rice cultivation brings employment and also helps to stabilize the Gross Domestic Product (GDP) by its vast contribution. But the production of rice is hampered by various kinds of rice diseases. One of the main diseases of Paddy is leaf disease. Generally, it is very time consuming and laborious for farmers of remote areas to identify the Paddy leaf diseases due to unavailability of experts. Though experts are available in some areas,

disease detection is performed by naked eyes which causes inappropriate recognition sometimes. An automated system can minimize these problems. Hence we came up with a model that aims to detect rice plant disease using CNN classifier. The model consists of various sensors like surface temperature recorder, soil moisture recorder, camera sensors which will monitor the rice plant or its complete life cycle.

Project Outcome/Result/Findings:

The model that can successfully identify six major rice diseases namely leaf blast, rice brown spots, leaf Smut, tungro, sheath rot, and leaf blight. Accuracy to attend for the same is 97%. Also a user friendly web app is created where the user can upload sample images of infected rice leaf and can get the details about the rice disease with fertilizers for the same.

Innovative Approach:

Earlier manual inception was the only way to identify the rice diseases which are more prone to error. Our model, once installed, monitors rice plants throughout its life cycle. With a built-in camera module and sensors, it records the data which is forwarded to the cloud where the data is analyzed to check for the presence of any sort of disease. If there is any sort of disease. If there is any disease, the model notifies the farmer and provides a detailed report containing the type of disease, its cause and fertilizers and pesticides for the same will be provided.

18. Breast Cancer Detection using Machine Learning Techniques

Unique Registration Number: GSIC-339

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Project Objective:

The objective of this project is to use machine learning model to perform automated diagnosis for breast cancer by checking if the tumor is cancerous or non-cancerous. The algorithms we intend to use are Naïve Bayes, Random Forest, Support Vector Machine (SVM), K-Nearest Neighbor (KNN), Logistic Regression, and Convolution Neural Network (CNN). With the results that we obtain after comparing the different algorithms based on our selected set of attributes, we intend to classify the breast cancer into benign (non-cancerous tumor) and malignant (cancerous tumor) at an early stage in comparatively less amount of time.

Abstract:

Breast cancer is mostly identified among women and is a major reason for increasing the rate of mortality among women. Early diagnosis of any disease can be curable with a little amount of human effort. Breast cancer is one of the diseases that could be cured when the disease is identified at earlier stages before it spreads across all the parts of the body. The lack of prognosis models results in difficulty for doctors to prepare a treatment plan that may prolong patient survival time. Hence, time requires developing the technique which gives minimum error to increase accuracy. In the project we have used a Machine Learning model to perform automated diagnosis for breast cancer. This method employed Convolutional Neural Network as a classifier model and Recursive Feature Elimination (RFE) for feature selection. Also, five algorithms Support Vector Machine, Random Forest, K-Nearest Neighbour, Logistic Regression, Naïve Bayes classifier have been used in the project. The system experimented on BreaK-Hist Dataset. The Dataset is partitioned into different sets of the train-test split. The performance of the system is measured based on accuracy and precision. Activation function such as ReLu has been used to predict the outcomes in terms of probabilities.

Project Outcome/Result/Findings:

We have been working on our Convolutional Neural Network model and segregating data. The results obtained till now from our execution and observation are not up to our expectations, therefore we are working on training the model again.

Innovative Approach:

The only way used to distinguish between Benign and Malignant tumor is by physical diagnosis by the doctors which sometimes may be prone to human errors. Through our model we aim to get highest possible accuracy in terms of distinguishing between the two cancer cells.

19. Advance Detection of Cataract Surgery using AI

Unique Registration Number: GSIC-342

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Project Objective:
The key intention behind this work is to develop an inexpensive, robust and convenient algorithm which in along with suitable devices, to diagnose the presence of cataract from the images of eye.

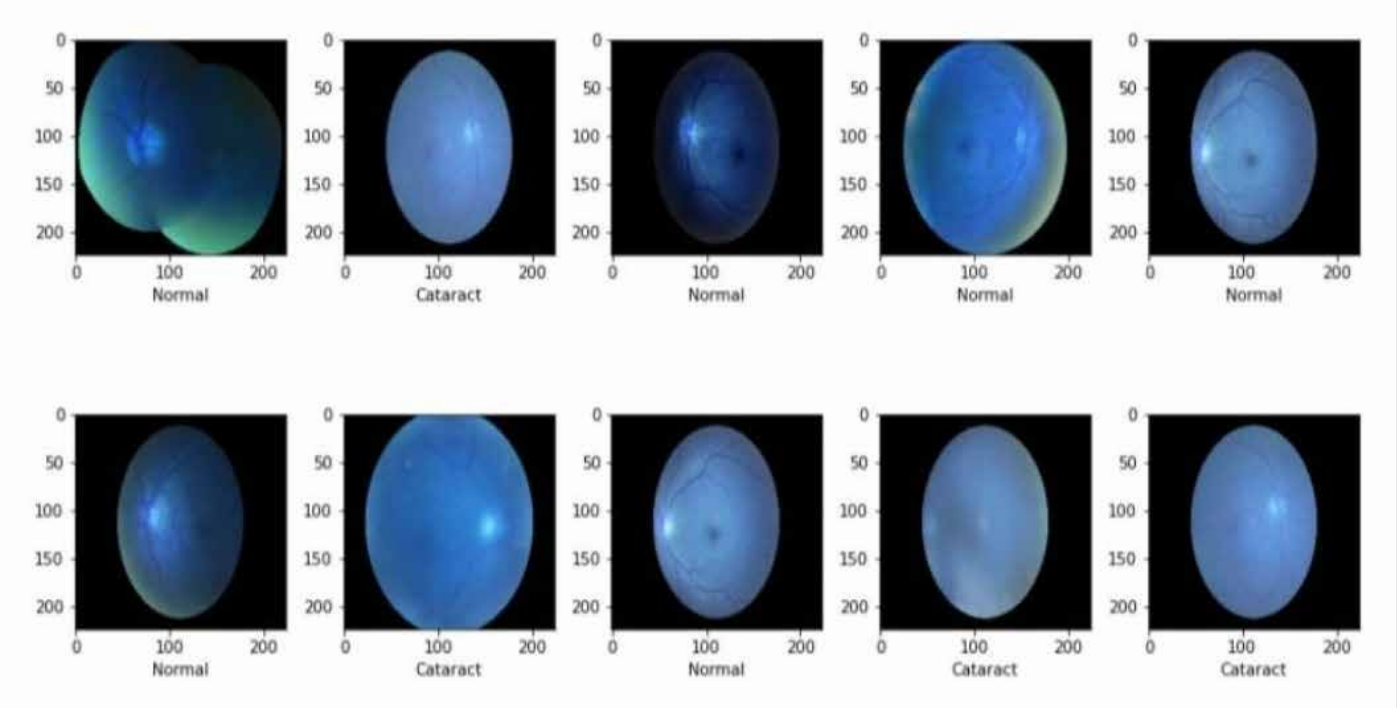
Abstract:
One of the dominant causes of visual impairment worldwide is Cataract. It is one of those eye disorders that lead to blindness if not treated correctly and quickly. It causes a blurred and foggy vision which can lead to partial or complete loss of eyesight. A protein layer is developed gradually and the lens becomes cloudy over a long period of time which reduces vision and leads to blindness. Early treatment can lessen the difficulties faced by cataract patients and avert visual impairment. People living in underdeveloped countries and rural areas cannot get effective treatment in time due to scarcity of eye care services and resources. Additionally, the existing methods for cataract diagnosis are sophisticated and expensive. Considering the above scenario, cutting down the cost and simplifying the process of cataract diagnosis is important. Also, transportation and portability of the equipment(s) required is an important factor while diagnosing such a catastrophic disease. The goal of this paper is to study, analyze and put forth

cataract detection methods and techniques using artificial intelligence. The proposed system is developed to ease the cataract diagnosis process for both ophthalmologists and patients.

Project Outcome/Result/Findings:

Following images is the result which we gained on this work along with its accuracy rate

Photograph: 5.19.1: Advance detection of Cataract Surgery using AI



Accuracy:

83.33333333333334

Innovative Approach:

This work has a lot of approaches to be worked on and yet we have just barely reached the tip of the whole topic. What we can do to further make this project more successful is to implement in mobile application. This way we can make this project available to more of the people very easily.

Photograph: 5.1: Chairman addressing the beneficiaries

Photograph 5.2: Beneficiaries of the Prototyping Grant Scheme

Photograph: Beneficiaries of the Prototyping Grant Scheme

Photograph: Beneficiaries of the Prototyping Grant Scheme

06

RAPID PROTOTYPING LAB

Chapter 06
RAPID PROTOTYPING LAB

"The value of an idea lies in
the using of it."

- Thomas Edison

In today's competitive environment, prototyping is essential. The reason being it provides a real-life test of your design and its functions. It allows the ideator to evaluate the product and present it to potential investors in its full working condition.

The Rapid Prototyping Laboratory provides opportunities for students to materialize their designs. Rapid Prototyping (RP) enables the quick fabrication of physical models using three-dimensional computer aided design (CAD) data. Used in a wide range of industries, Rapid prototyping allows students to turn innovative ideas into successful end parts rapidly and efficiently.

Rapid Prototyping, also known as 3D printing, is an additive manufacturing technology. The process begins with taking a virtual design from modeling or computer aided design (CAD) software. The 3D printing machine reads the data from the CAD drawing and lays down successive layers of liquid, powder, or sheet material — building up the physical model from a series of cross sections. These layers, which correspond to the virtual cross section from the CAD model, are automatically joined together to create the final shape.

Rapid Prototyping uses a standard data interface, implemented as the STL file format, to translate from the CAD software to the 3D prototyping machine. The STL file approximates the shape of a part or assembly using triangular facets.

Typically, Rapid Prototyping systems can produce 3D models within a few hours. Yet, this can vary widely, depending on the type of machine being used and the size and number of models being produced.

To achieve this GSInC's Rapid Prototyping Lab established at Don Bosco College of Engineering is the home to a variety of state-of-the-art prototyping equipment for the innovators in Goa. Our mission is to support prototyping and make it affordable for Students, Startups, Innovators, Research Faculty & Entrepreneurs who require the necessary support in converting Ideas into scalable products.

The lab provides innovators access to a variety of equipment that can enhance the maturity of their designs. The latest technology and tools, like an advanced 3D Printer and a powerful Laser Cutting Machine, allow

innovators to freely tinker around with ideas until they can refine and crystalize them. This facility is a perfect place for innovators to help individuals convert their ideas into designs and designs into a product.
The lab is accessed by startups and students from schools and colleges. We also conduct training workshops in the Lab on STEM education such as Robotics, IOT, 3D Printing, Laser cutting, Drone making, etc. for the schools and colleges from the State of Goa.
The benefits Prototyping Lab are:

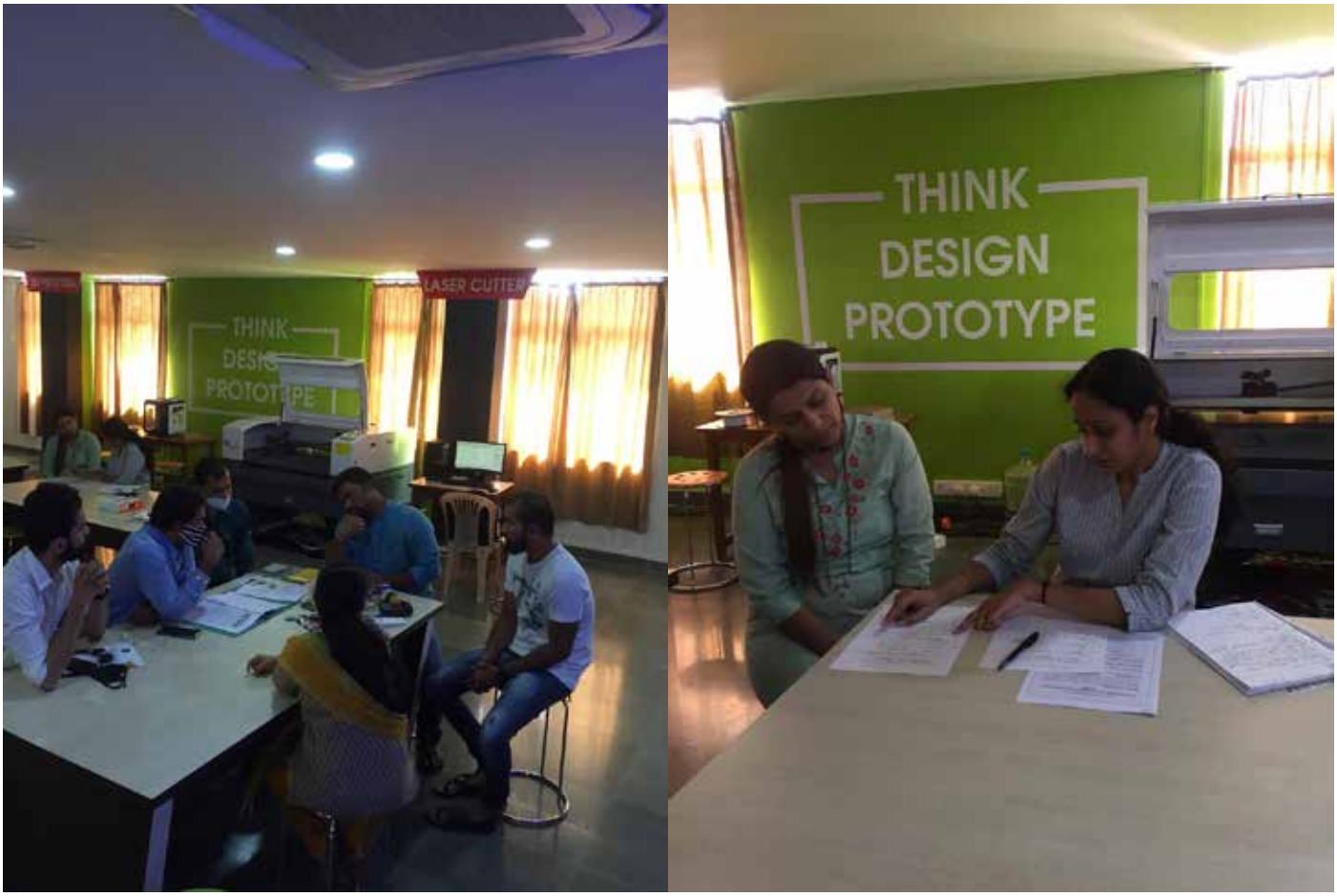
- Building the Product/Design Proofs
- Saving Cost and Time
- Customizing
- Reducing Design Flaws

We provide access to the following prototyping equipment to individuals with a purpose to convert the ideas into designs, and their designs into products.

Photograph: 6.1 : Visitors at Rapid Prototyping Lab

Prototyping Lab visit by Shri Levinson Martins, Director, Department of Science Technology and Waste Management, Government of Goa with Father Kinley DCruz, Director, Don Bosco College of Engineering, Fatorda

Photograph: Visitors at Rapid Prototyping Lab, Students from Government Polytechnic Curchorem



Photograph: Start up using Combination Spanner to create drone prototype at Rapid Prototyping Lab

Photograph: Start up using Laser Cutting Machine to create drone prototype at Rapid Prototyping Lab

Photograph: 6.2: Rapid Prototyping Lab Brochure

Goa State Innovation Council

CRAFT YOUR FIRST LOOK

With Rapid Prototyping Lab

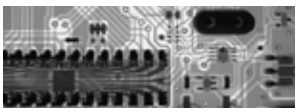
Equipped with the latest technology and tools, like an advanced 3D Printer and a powerful Laser Cutting Machine, the lab allows innovators to freely tinker around with ideas until they can refine them to the point of idealisation.

To develop the spirit of innovation further,
Goa State Innovation Council invites Students, Startups,
Innovators, Research Faculty & Entrepreneurs
to innovate, conceptualise and scientifically shape their ideas.

MISSION

Our mission is to support prototyping and make it affordable for Students, Startups, Innovators, Research Faculty & Entrepreneurs who require the necessary support in converting Ideas into scalable products.

We provide access to various prototyping equipment from the Prototyping Lab to individuals with a purpose to convert the Ideas into designs, and their designs into products.



THE BENEFITS OF PROTOTYPING LAB

The Rapid Prototyping Lab was established at Don Bosco College of Engineering, Fatorda, by Goa State Innovation Council, Government of Goa, to provide innovators from all walks of life with the necessary infrastructure to transform their ideas into tangible models or prototypes.

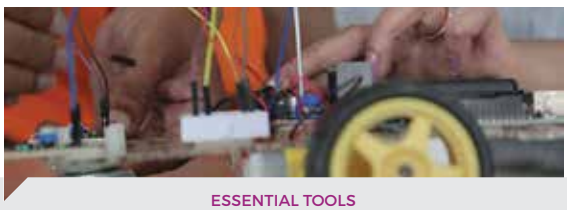
THE LIST OF EQUIPMENTS

9060-80W Laser Cutting / Engraving Machine

Flashforge Adventurer 3 3D Printer

POWER TOOLS

Professional Angle Grinder | Circular Saw | Smart Drill Kit



ESSENTIAL TOOLS

Junior Hacksaw
Screw Driver Set
Micro Chisel Set Plier Set
Hammer Set
C Clamps
Hardened Metric Allen Key Set
Combination Spanner
Racheting Screwdriver set
Baby Vice Clamp
Swastik Stainless Steel Adjustable Spanner Wrench
Hot Melt Glue Gun
Measuring Tape - 5 meters
Digital Tester
Digital multimeter
Tool Kit & Screwdriver and Socket Set

LOCATION

Rapid Prototying Lab
2nd Floor, Don Bosco College of Engineering, Fatorda
For more details - Email: admin@gsic.in | Phone: +91 832-2744000

6.2 List of Equipment

Table 6.2: List of Equipments

		Power Tools	
1	Professional Angle Grinder	Bosch GWS 600 Professional Angle Grinder Disc Diameter 100 mm Grinding Spindle Thread M 10 No Load Speed (rpm) 12000 rpm Rated power input 660 W Width (millimeter) 263 mm Height (millimeter) 95 mm Weight (kilograms) 77 mm Weight 1.5 kg	BOSCH
2	Circular Saw	Bosch GKS 7000 Circular Saw Rated Power Input 1,100 W No-Load Speed 5.200 rpm Weight 3.6 kg Saw Blade Bore Diameter 20 mm Saw Blade Diameter 184 mm Cutting Depth (90°) 65 mm Cutting Depth (45°) 47 mm	BOSCH
3	Smart Drill Kit	Bosch Impact Drill 1G GSB 13 RE Kit, 600 W, Voltage: 230v Impact Drill GSB 13 RE Kit Voltage 230v No Load Speed 0 - 2800 rpm Item Weight 1.6 kgs Power Consumption 600 W Minimum Order Quantity 1 Piece	BOSCH
		Essential Tools	
4	Junior hacksaw	Size: 6 inch	STANLEY
5	Screwdriver set	4pc Screw Driver set: PH1x450, PH2x450mm, 5x450mm, 6x450mm, chrome vanadium steel shaft, chrome plated Ergonomically designed ABS plastic grip handle	STANLEY
6	Micro chisel set	Set of 12 Tools for Wood-Carving. Quantity: 12 Tools; Size: 13.5 x 1 cm each (approx.); Material: Steel Blades with Wooden Handles	STANLEY
7	Plier set	PLIER SET - Combination Plier, Needle Nose Plier and Lockin Plier.	STANLEY

8	Hammer set	1 Mallet Hammer, 1 Claw Hammer and 1 Ball peen Hammer	STANLEY
9	C clamp	Material: Steel Colour: Red and Silver Dimensions: 4” Package Content: 3 C or G Clamps	STANLEY
10	C clamp	Material: Steel Colour: Red and Silver Dimensions: 8” Package Content: 3 C or G Clamps	STANLEY
11	Hardened Metric Allen Key Set	Hardness: 52 to 56 HRC (Scientifically hardened) The Allen Keys are Precision Drawn for perfect matching of Allen keys with the screw head Black Allen Keys are specially coated and oiled for rust prevention TAPARIA Allen Keys generally Conform to I.S. 3082 2008 Set Size: Set of 9	STANLEY
12	Combination Spanner	12 PCS COMBINATION SPANNER SET 6-22MM. CHROME VANADIUM STEEL COMBINATION SPANNER SET 6-22 MM CONSIST OF 12 Pcs 6-7-8-9-10-11-12-13-14-17-19-22	STANLEY
13	30 Pc Racheting Screwdriver set	Package Contains: 30 Pcs, ratcheting screw driver set	STANLEY
14	Baby Vice Clamp	Size (L x B x H): 15.2 cm x 6 cm x 15 cm, Jaw width 60 mm, Jaw opening 70 mm Portable- Can be taken along and used anywhere Net Weight 1.2 KG. Type 60 Mm	STANLEY
15	Swastik Stainless Steel Adjustable Spanner Wrench (8 Inches)	Material: Stainless Steel, Color: Black Item Dimension: 21 cm x 11 cm x 9 cm Precision marked scale indicate correct jaw opening Heat treated adjustable chrome finish spanner Package Contents: 1 Piece Adjustable Spanner	STANLEY
16	Hot Melt Glue Gun	Power input - 220-240V AC, 50Hz	STANLEY

17	Measuring Tape 5meters	Material: Plastic and Aluminium Colour: Grey and Blue Size (L x B x H): Tape: 9 cm x 3 cm x 7 cm; Level: 3 cm x 3 cm x 5 cm Included Components: 1 Spirit Level & 1 Measuring Tape	STANLEY
18	Digital Tester	Direct Detection: 12V - 220V AC/DC live objects through LCD display.	STANLEY
19	Digital multi-meter	Jaw Size: 50mm or 2.0 inch Tests AC or DC voltage, AC current and resistance Diode check and continuity test, Data hold Fuse and Diode Protection and Voltage Measurement Includes carry case and 9v battery Multi-meter Ammeter tester	STANLEY
20	46 In 1 Pcs Tool Kit & Screwdriver and Socket Set	1/4 Inch Socket Combination 46Pcs Set Diy Repair Tool Kit Model:2462 is suitable for professionals, technicians. The multi-function drilling machine can be used to make holes on walls, concrete, metal, wood and plastic. Fix your picture frames, paintings, hangers, lightings etc. without any hassles.	STANLEY

3D Printer Set

21	Flashforge Adventurer 3 3D Printer	Print Technology Fused Filament Fabrication (FFF), Fused Deposition Modeling (FDM) File Format Supported STL Connectivity USB, Wifi, Ethernet Build Size (L*W*H Inches) 150L x 150W x 150H mm Condition New Weight (Kg) 9kg Filament Diameter 1.75mm Resolution 0.1mm-0.3mm (Adjustable) Automatic Grade/Machine Type Automatic Colour White Extruder Quantity 1 Layer Thickness 0.1mm-0.3mm (Adjustable) Nozzle Temperature 245 degree celcius Operating System Windows 7/10/Mac OS X,Linux Printing Technology Fused Deposition Modelling Technology Fused Deposition Modelling Color White Brand Flashforge Warranty 1 Year Material Polyamide (PLA), Nylon, ABS, Polypropylene (PP) Print Accuracy 0.1mm-0.3mm (Adjustable) Software Supporting FlashPrint Product Dimension 388 x 380 x 405mm Heated Bed Temperature Upto 100 degree celcius	Flashforge

Laser Cutting /Engraving Machine

22	9060-80W Laser Cutting /Engraving Machine	Laser Type: Hermetic and Detached Co2 Laser Tube Laser Power: 80W Voltage: AC 220V 50Hz Moving System 5 Inch Offline Display, Offline Stepping Motor System Cutting Area: 900 mm X 600 mm Cutting Table: Honeycomb and Aluminous Strip Panel Double Face Working Table Engraving Speed: 50000 mm/min. Repeating: Location Less than 0.05 mm	H-SPACE MACHINERY CO.

6.3 Prototypes built at Prototyping Lab

1. A FACE-MASK WITH A FILTRATION SYSTEM

Introduction:

We have developed a mask which is equivalent to a N95 mask . Our mask filter out 95 percent of very small particles. This includes viruses and bacteria of particle size of 0.05 micron. The respirator itself is generally circular in shape and is designed to form a tight seal to your face. Elastic bands help hold it firmly to your face. Some types may have an attachment called an exhalation valve, which can help with breathing and the buildup of heat and humidity.

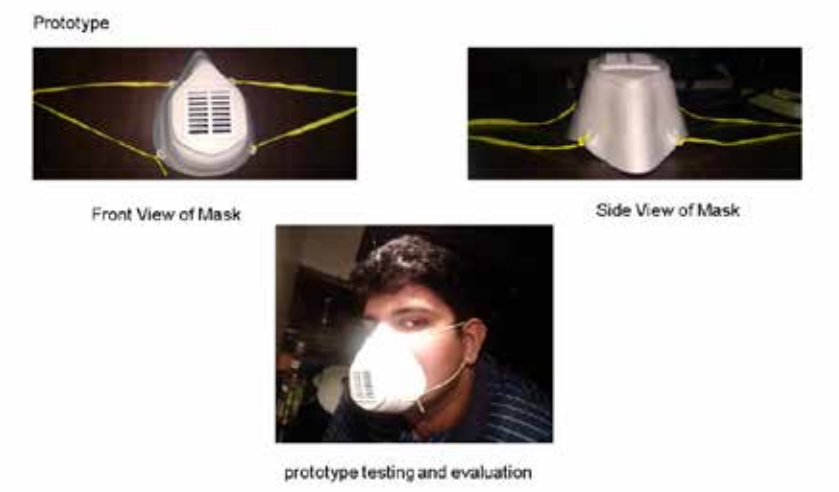
Our production process involves 3D printed thermoforming die which is used to mould the PP sheet in the form of a mask envelope and the detachable filtration system of grit size of 0.14 micron.

The mask that we have designed is a free size mask that means it can fit to people with any dimensions whether they are long chinned short chinned, whether they are round faced or rectangular faced It will fit all perfectly, since it will come with a high protection filter it will filter out every particle that will try to infiltrate through it. It will also come with a silicon lining so that it does not hurt the skin of the wearer after prolonged wearing of the mask.

We have designed a mask where one can immediately and very easily remove the filter slot and change it after the plastic mask is sanitized thoroughly. This not just makes the whole process of changing the mask easy but also makes it very cost efficient. Also does not make the mask sticky or sweaty since it is a plastic mask.

Faculty Name: GAURISH SAMANT
Contact No.: 7411357170
samantgaurish@gmail.com
College: Don Bosco College of Engineering, Fatorda - Goa

Photograph: 6.3.1 - Prototype of Facemask with Filtration System



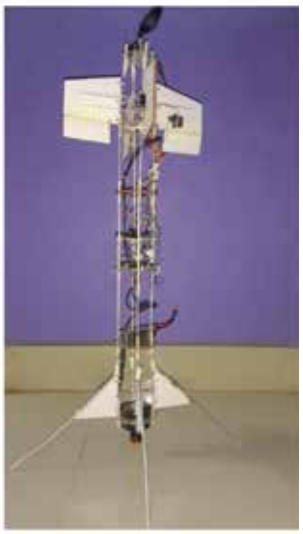
2. DRONILE – DRONE MISSILE COMBO

Introduction:

A Turbofan Based Missile capable of hovering at fixed location in DRONE MODE or SURVEILLANCE MODE and immediately switching to MISSILE MODE for destructing the target.

Startup Founders: Shri Debasis Doki & Shri John Srivastava
Contact No.: 8275621713
Email ID: sahil.debasis@gmail.com
Startup: Aj DEFENSE SYSTEM

Photograph: 6.3.2: Prototype of Dronile - Drone Missile Combo



3. ULAVAN AGRITECH SERVICES (OPC) PVT. LTD.

Introduction:

GSInC's Prototyping Lab helped me: We had used the Lab to design and 3D print the hull cover for the drone. We had to test multiple materials for brittleness and durability. GSInC provided us with all the resources from system to 3-D Filament, and lab space for building the drone assembly.

Address: FiiRE Cu. 17, The Fatorda Salesian Society, Don Bosco, Fatorda,
Margao, Goa, India – 403602
Contact Number: +91-9944545247
Contact Email ID: tarun.ulavan@gmail.com

Photograph: 6.3.3 - Prototype of 3D printed parts

4. ASIER TECHNOLOGIES

Introduction:

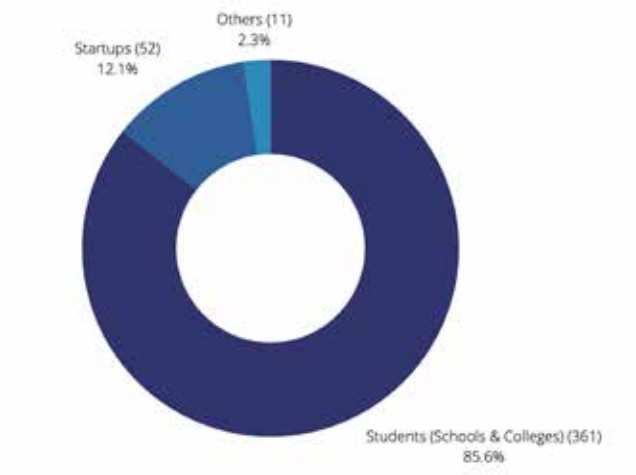
ASIER, which means “the beginning” in Spanish, is a STEM (Science, Technology, Engineering, and Maths) based Ed-TECH company which aims to foster innovations through technology and focusing on the same, the company imparts practical knowledge through their first commercialized educational DIY- Kits “ROBOKITS” which has variants in itself and through various “ Workshops and Training” GSInC’s Prototyping Lab helped me in designing and prototyping our robotic chassis.

Address: FiiRE
Contact Number:9049110210
Contact Email ID: asiercreativity@gmail.com

Photograph: 6.3.4 - Prototype of customized Robotics Chassis

6.4 Status Report of Prototyping Lab Visitor Data

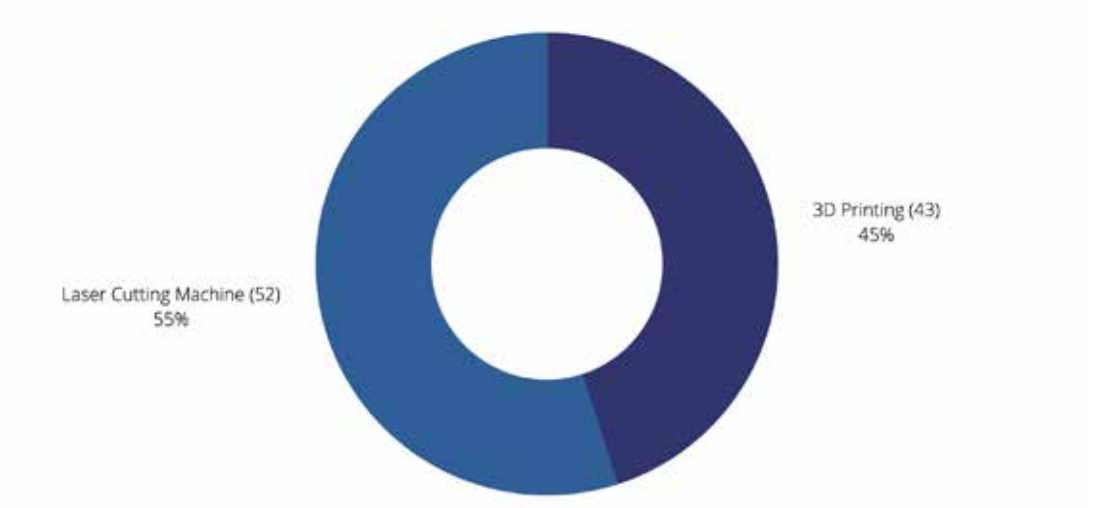
Percentage of visitors visited the prototyping lab



The above chart illustrates the percentage of visitors visited the prototyping lab. Overall, there are 380 i.e. 89% of unique visitors out of 424 total visitors to the lab.

However, the most significant amongst these were School and College students who participated with their ideas they are 361 in total i.e. 85%. The percentage of startups who took part is 12% (52 startups). Also, there are other visitors such as faculties, training & study visit which comprises of 11 in total i.e. 2.3%.

Percentage of lab equipment utilization



If you look at this pie chart, you'll understand the lab equipment utilization. As stated in that chart, Laser cutting machine is used by 52 individuals for their projects, followed by the 3D printing machines which is 43 in number.

The percentage of utilization is 55% and 45% respectively of Laser printing and 3D printing machines.

07

INTELLECTUAL PROPERTY RIGHTS

Chapter 07
INTELLECTUAL PROPERTY RIGHTS

"Ideas are the beginning
points of all fortunes."

- Napoleon Hill

7.1 Introduction

When a business or an individual has an idea that they want to protect from being used by others without their permission, it is best to seek legal protection of that intellectual property.

By seeking property rights over your intellectual property — property that is a creation of the mind, such as an invention, symbol, or even a name.

You establish rightful ownership and prevent the unlawful use of your property.

What's more, establishing intellectual property rights can help to fuel the economy and stimulate further innovation.

Intellectual Property Rights (IPR) Protection is critical to fostering innovation. Innovators often have limited resources and manpower. And the only way to sustain in today's cut-throat competitive world is through continuous growth and development-oriented innovations which need to be protected so that businesses and individuals can reap the full benefits of their inventions.

IPRs are emerging as a strategic business tool for any Innovators organization to enhance industrial competitiveness.

7.2 Intellectual Property Rights (IPR) Sessions

We at Goa State Innovation Council (GSInC) conduct regular sessions on Intellectual property rights. The sessions are conducted by the industry experts which are interactive in nature. Most sessions are carried out in the weekend from 3:00 pm to 5:00 pm.

The first IPR session was conducted on 26th September 2020 on "Know your Patentability Potential" by speaker Mr. Rahul Bagga. The guest speaker belongs to the reputed Intellectual Property (IP) Delhi based firm ADASTRA. The agenda of the sessions is to guide the innovators in all aspects of licensing, franchising, branding and communication and obtaining access to financial grants and funding. The last session was conducted on 12th March 2021 which was attended by a large number of IPR enthusiast i.e. 254 participants.

GSinC conducted 7 sessions addressing different aspects of Intellectual Property Rights. The sessions where conducted by Mr. Rahul Bagga - Patent Attorney, Aumirah (Formerly known as Adastra IP India). Rahul Bagga, a senior patent attorney of ANS IP Management Services (as an associate), also serves as the Director at Adastra IP, India and Malaysia (an International IPR Firm). Rahul with his experience of more than 11 years in handling IP matters, patents in particular, in field of biotechnology, genomics, molecular biology, medtech, agritech, pharma, chemistry, life sciences, healthcare, and other allied sciences across multiple jurisdictions. Rahul is a registered patent and design agent with Indian Patent Office.

Session 01:
The first session was conducted on 26th September 2020. The two hour long session was titled IPR Session - Know your Patentability Potential. The session started at 3:00 pm and ended at 5:00 pm and was attended by 75 participants.

Session 02:
The second session was conducted on 17th October 2020. The two hour long session explained the importance of IPR to its participants. The session started at 3:00 pm and ended at 5:00 pm and was attended by 37 participants.

Session 03:
The third session was conducted on 12th November 2020. The two hour long session was like a part 2 of the earlier session. The speaker explained to the participants the importance of IPR to its participants at a greater depth. The session started at 3:00 pm and ended at 5:00 pm and was attended by 43 participants.

Session 04:
The fourth session was conducted on 2nd December 2020. The two hour long session explained to the participants Patent Filing and Prosecution - India & Overseas. The session started at 3:00 pm and ended at 5:00 pm and was attended by 41 participants.

Session 05:
The fifth session was conducted on 10th December 2020. The two hour long session revealed more details about Patent Filing and Prosecution - India & Overseas. The session started at 3:00 pm and ended at 5:00 pm and was attended by 76 participants.

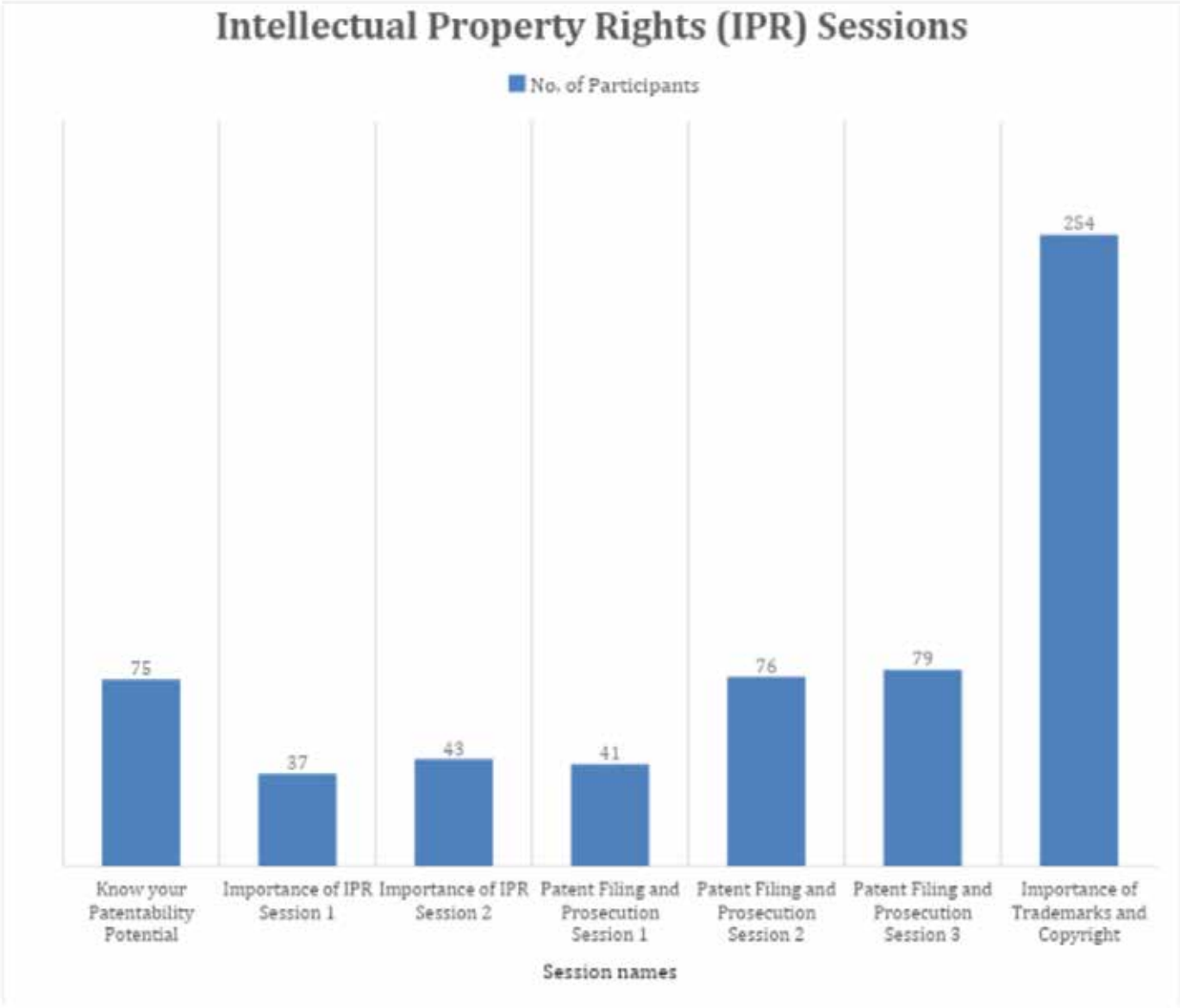
Session 06:
The fifth session was conducted on 17th December 2020. In this two hour session, the speaker talked more about Patent Filing and Prosecution - India & Overseas. The session started at 3:00 pm and ended at 5:00 pm and was attended by 79 participants.

Session 07:
The fifth session was conducted on 12th March 2021. In this two hour session, the speaker spoke about Importance of Trademarks and Copyright in Academics & Startup Ecosystem. The session started at 3:00 pm and ended at 5:00 pm and was attended by 254 participants.

7.3 Status Report

Total session conducted: 7

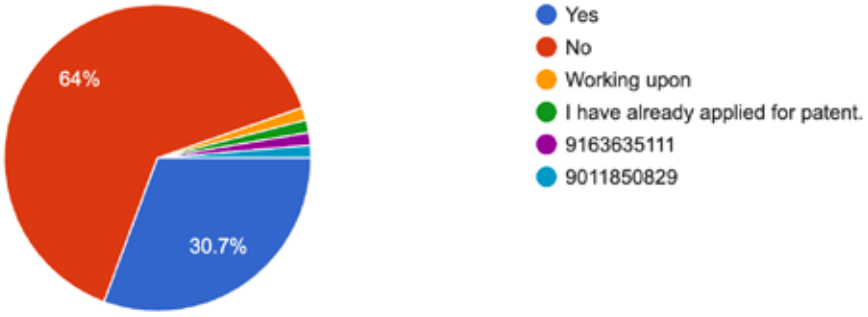
Total no of participants: 605



Feedback:

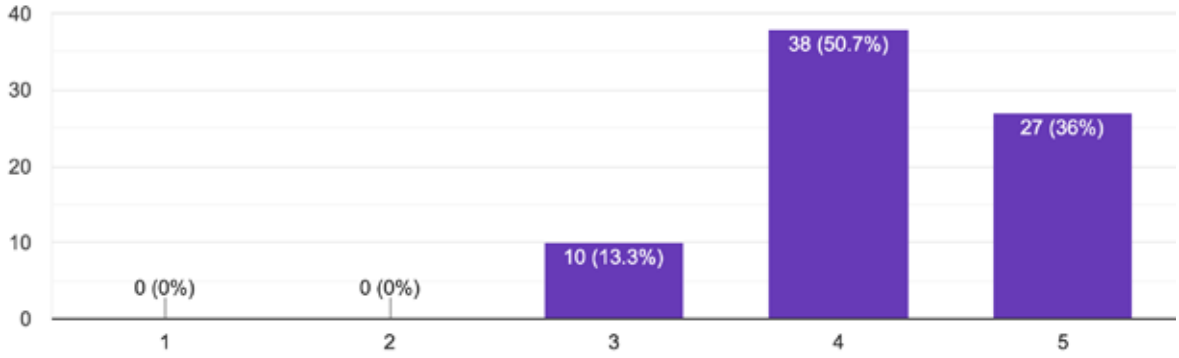
Are you looking for immediate patent support?

75 responses



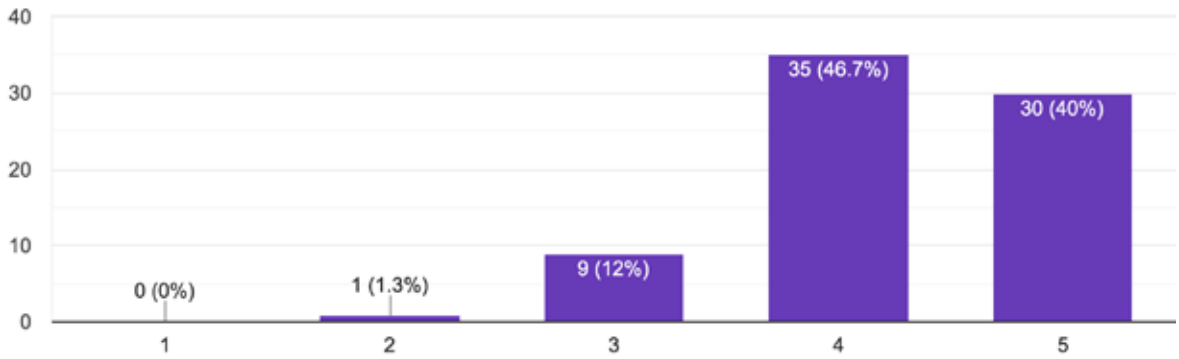
Did the Session help you to understand your Patentability Potential

75 responses



Was the Session interesting and relevant to you?

75 responses



08

BOOTCAMPS ON INNOVATION, CREATIVITY & STARTUPS IN COLLEGES

Chapter 08
BOOTCAMPS ON INNOVATION, CREATIVITY & STARTUPS IN COLLEGES

"Don't worry about failure;
you only have to be right once."

- Drew Houston

8.1 Introduction:

Google. Facebook. Apple. Microsoft. Wal-Mart. Wondering what all these companies have in common? Aside from being some of America's most successful brands, their founders were all between the ages of 20 and 26 when they were launched. College-aged entrepreneurs enjoy unprecedented benefits and support, making it the perfect time to test the waters of business ownership. Whether taking advantage of entrepreneurship programs or seeking advice from alumni entrepreneurs in residence, there will never be a time where more assistance or encouragement is so readily available.

So we need programs that are intensive in nature, and require strict discipline to help students stay abreast of the latest happenings. Taking a cue from this, the Goa State Innovation Council organizes bootcamps on innovation that focus in three key aspects:

- Technology
- Innovation
- Startup

Specifically designed for the college students in Goa, these bootcamps encourage the participants to unlock their creativity. These camps are designed to help participants to think of scalable business ideas that innovatively bridge need gaps in the market or solve community issues. The aim of the event is to boost student's employability by developing new skills, or get to work on a business idea, overseen by experienced entrepreneurs.

Mentored by lecturers and industry leaders, the students are groomed to become tech-entrepreneurs. They are exposed to the rigors of launching and scaling up a start-up. Besides focusing on innovation and entrepreneurship, the bootcamps also educate the students about the role played by the GSInC in promoting the start-up culture in Goa. One can also learn about the various state government-based schemes available to budding entrepreneurs in Goa.

Schedule:

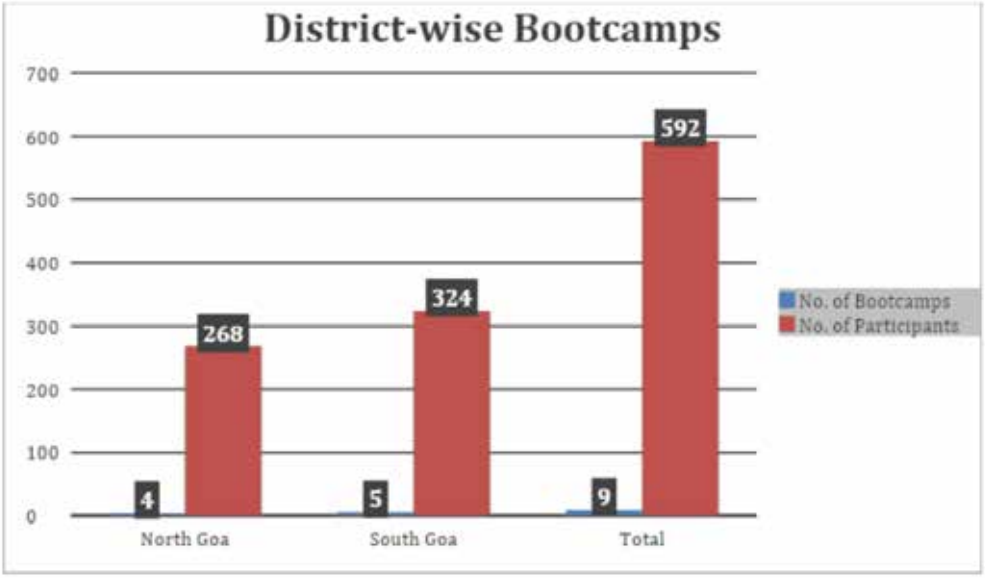
Table: 8.1: Schedule of Bootcamps on Innovations in Colleges

Sr. No.	Topic	Duration
1	Introduction of Goa State Innovation Council & Bootcamp	30 MINS
2	How to be a Tech Startup Entrepreneur?	45 MINS
3	Process of setting up an Enterprise, Ideation, Planning, execution, etc.	45 MINS
4	Various Government Funds and Schemes assistance for starting up	45 MINS
5	Q & A	15 MINS

8.2 Status Report

The pie chart below shows total number of students attended vs students interested in startup from the bootcamps organized by the Goa State Innovation Council (GSInC). The GSInC organized 9 bootcamps last year. The total student participation was 592, out of which 207 students showed interest to start their own venture.

The graph below depicts the district-wise bootcamp participation of college students from Goa. GSInC organized 9 bootcamps last year to boost entrepreneurship and innovation in the state. 4 bootcamps were organized in North Goa and 5 in South Goa. We got the unprecedented response from the young generation. The total of 592 students attended the camps, out of which 268 students participated in North Goa and 324 students attended South Goa bootcamps.



Bootcamps on Innovation in Institutes:

The Goa State Innovation Council team has done a splendid job in organizing bootcamps on innovation across educational institutes in Goa. Recognizing the rapid advancements in technology, these bootcamps focus on grooming youngsters with the necessary skills and help them realize their entrepreneurial dreams.

In all, 17 boot camps were organised across 20 institutes. These institutes include prestigious organizations like IIT Goa, Goa College of Engineering, Agnel Institute of Technology and Design, St. Xavier's College and Don Bosco College of Engineering.

Over 1,561 students who attended these bootcamps were taught to harness the power of innovation. They were encouraged to shape their ideas into successful start-ups. In the duration of 2 to 3 hours, the bootcamps ensured maximum student participation and involved various activities for maximum engagement.

Post-program feedback revealed that as many as 840 students who attended the bootcamps are interested in launching their own startups.

Through the massive reach-out program to engage students from various colleges in Goa, the Goa State Innovation Council team has contributed significantly to spreading awareness about transforming technology-led innovations into tomorrow's successful business enterprises.

List of Sessions:

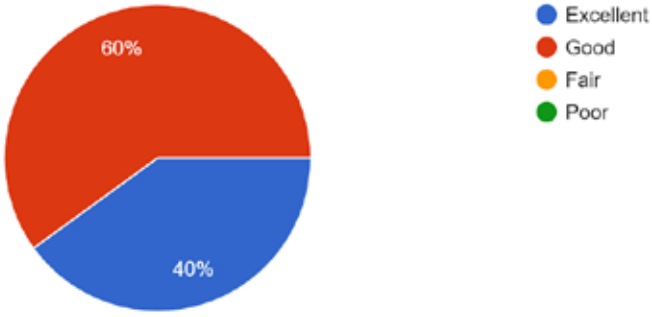
Table 8.2: List of Sessions

Sr. No.	Date	Time Slot	Name of the School
1	23/10/2020	2.00 pm - 4.00 pm	Shree Mallikarjun College Of Arts & Commerce, Canacona
2	26/10/2020	2.00 pm - 4.00 pm	Government College of Commerce and Economics, Borda-Margao
3	27/10/2020	10.00 am - 12.00 pm	S. S. Dempo College of Commerce and Economics, Panaji
4	28/10/2020	2.00 pm - 4.00 pm	Dhempe College of Arts & Science, Panaji
5	30/10/2020	2.00 pm - 4.00 pm	Don Bosco College of Engineering, Fatorda
6	6/11/2020	10.00 am - 12.00 pm	Shree Rayeshwar Institute of Engineering and IT, Shiroda
7	10/2/2021	2.00 pm - 4.00 pm	Goa Multi Faculty College, Dharbandora
8	01/03/2021	10.00 am - 12.00 pm	Rosary College Of Commerce & Arts, Navelim
9	19/03/2021	10.00 am - 12.00 pm	Agnel Institute of Technology & Design, Assagao

Feedback:

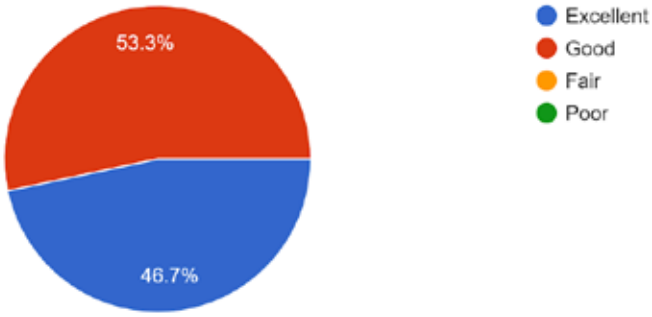
How did the session compare to your expectations?

15 responses



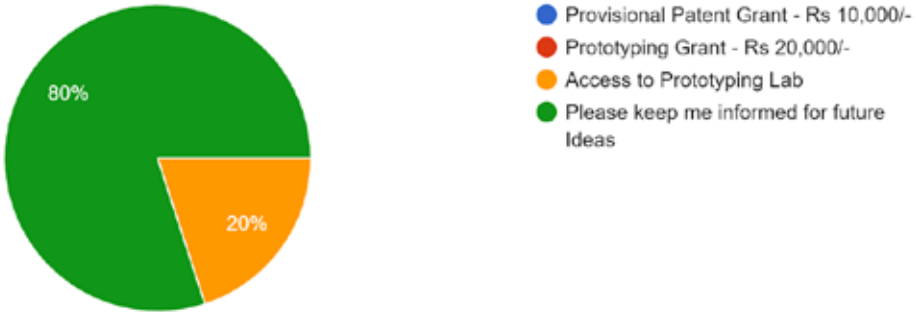
Please rate the speaker's knowledge of the topic:

15 responses



Do you want to apply for the following Schemes?

15 responses



"The various sessions arranged are excellent and very informative. Helping students to think out of the box and something new."

Faculty, SRIEIT, Shiroda

"Really good workshops conducted by Goa Innovation Council. Waiting for more workshops like this."

Faculty, Rosary College of Commerce and Arts, Navelim

09

SENSITIZATION WORKSHOP ON INNOVATION IN SCHOOLS AND COLLEGES

Chapter 09
SENSITIZATION WORKSHOP ON INNOVATION IN SCHOOLS AND COLLEGES

"Don't worry about failure;
you only have to be right once."

- Drew Houston

9.1 Introduction

STEM innovations have been rapidly transforming our everyday lives. From the way we grow our food to the way we cure diseases, connect with friends and family, and understand the world around us, STEM disciplines provide a pathway to explore a bright future.

The reason why the Goa State Innovation Council has initiated the promotion of STEM (Science, Technology, Engineering and Mathematics) education in primary and secondary schools.

The core idea is to develop skills like creativity, collaboration, communication, critical thinking, problem-solving and curiosity. These skills are transferable to a wide range of situations that children may face later in life. GSInC aims to do this by providing quality learning experiences to students. This is done with the support of schools by helping them to plan a whole-school curriculum and collaborating with relevant organizations like Incubators and Tinkering labs.

To achieve this, the Goa State Innovation Council has approached big and small, government-run and private schools across Goa. The council is helping school authorities to envision and embrace a technology-driven future. In addition, the Goa State Innovation Council organises multiple workshops on STEM education in Goa that has resulted in the tremendous success of this initiative.

Schedule:

1. Introduction to Session & Virtual Innovation Register
2. Introduction to Innovation, Creativity & Ideation
3. Activity Session on Innovation, Creativity & Prototyping
4. Q&A

9.2 Status Report

The Goa State Innovation Council team has achieved remarkable success in conducting sensitization workshops on STEM (Science, Technology, Engineering & Mathematics) by reaching out to more than 2500 students through successful workshops across 34 schools located in various parts of Goa.

To achieve consistency and increased reach, the Goa State Innovation Council, like the previous year, identified schools in the vicinity of large cities such as Ponda, Margao, Mapusa, Panjim, as well as, pinpointed the ones situated at far-flung villages like Valpoi, Cujira, Guirim, Aquem and Sirigao. The aim behind such an exercise is to ensure equal opportunities and inclusive development across the state.

The initiative to popularise STEM education is driven by the growth in emerging technologies across the world. Also it is imperative to familiarise students with technology at an early age so they can take advantage of these developments in the future. The Goa State Innovation Council finds it crucial that school students must be exposed to a modern way of teaching, with enough exposure to scientific learning and acquaintance with technology.

The workshops achieve this aim by helping schools adopt the STEM education program and take necessary steps towards creating the required infrastructure to support STEM education.

Table 9.2: List of Schools

Sr. No.	Date	Name of the School	Time Slot	Participants
1	12/10/2020	Sacred Heart High School, Parra	9.30 am - 10.30 am	91
2	12/10/2020	St. Anne's Institute, Agonda	11.30 am - 12.30 pm	79
3	13/10/2020	Keshave smruti High School, Dabolim	11.30 - 12.30 pm	87
4	14/10/2020	Saviour of the World High School, Loutolim	11.30 am - 12.30 pm	54
5	15/10/2020	St. Jude's High School, Betalbatim	11.30 am -12.30 pm	57
6	16/10/2020	Govt. High School Keri	9.30 am - 10.30 am	45
7	16/10/2020	Anjuman Himayatul Islam High School, Baina Vasco	11.30 am -12.30 pm	76

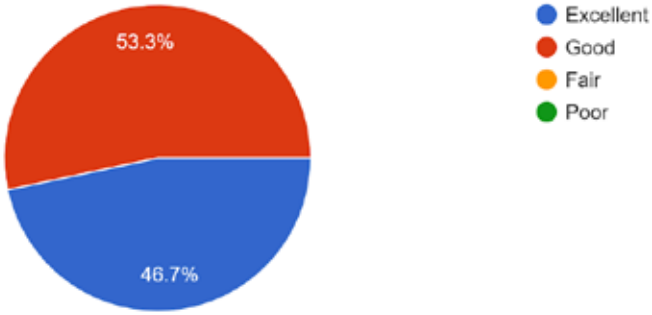
8	17/10/2020	Almeida High School Ponda	9.30 am - 10.30 am	96
9	19/10/2020	Don Bosco High School, Calangute	9.30 am - 10.30 am	90
10	20/10/2020	Infant Jesus High School, Colva	9.30 am - 10.30 am	69
11	20/10/2020	Posh English High School, MAS building, Colmorod, Navelim	11.30 am - 12.30 pm	66
12	21/10/2020	Mae Dos Pobres High School, Nuvem	9.30 am - 10.30 am	77
13	26/10/2020	Perpetual Succour Convent High School, Navelim	9.30 am - 10.30 am	90
14	31/10/2020	St. Andrew's Institute, Vasco	9.30 am -10.30 am	100
15	31/10/2020	St. Aloysius high school, Diwadi	11.30 am - 12.30 pm	80
16	3/11/2020	Fr. Agnel Multipurpose High School, Verna Goa.	11.30 am - 12.30 pm	64
17	5/11/2020	St Joseph High School, Calangute	11.30 am - 12.30 pm	90
18	27/01/2021	St. Mary's High School, Varca	11.30 am - 12.30 pm	41
19	28/01/2021	Our Lady of Mount Carmel High School, Arambol	11.30 am - 12.30 pm	74
20	29/01/2021	Abhinav Vidya Mandir, Molem	11.30 am - 12.30 pm	71
21	04/02/2021	St Rita's High School Maina - Curtorim	9.30 am - 10.30 am	75
22	05/02/2021	Govt High School Keri	9.30 am - 10.30 am	86
23	06/02/2021	St. Michael High School, Taligao	9.30 am -10.30 am	64
24	10/02/2021	Our Lady of Snow High School, Raia	11.30 am - 12.30 pm	55
25	11/02/2021	St. Thomas Boys' High School, Aldona	9.30 am - 10.30 am	23

26	13/02/2021	Vidhya Vikas Academy	9.30 am - 10.30 am	100
27	13/02/2021	Vidhya Vikas Academy	11.30 am - 12.30 pm	100
28	19/02/2021	Our Lady of Rosary High School, Dona Paula	9.30 am - 10.30 am	55
29	22/02/2021	Govt High School Colomb	11.30 am - 12.30 pm	40
30	23/02/2021	Govt High School, Baina	9.30 am - 10.30 am	75
31	27/02/2021	Govt High School, Sheldem	9.00 am - 10.00 am	70
32	03/03/2021	Perpetual High School Cortalim	10.30 am - 11.30 am	100
33	6/3/2021	Cresent School, Fatorda	11.30 am - 12.30 pm	82
34	8/3/2021	Holy Cross Institute, Quepem	9.30 am - 10.30 am	150

Feedback:

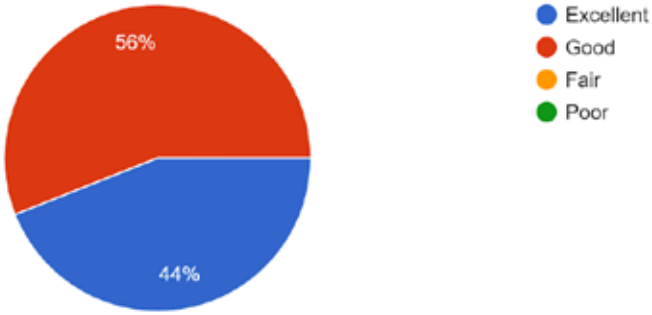
Please rate the content of the Sensitisation Workshop:

15 responses



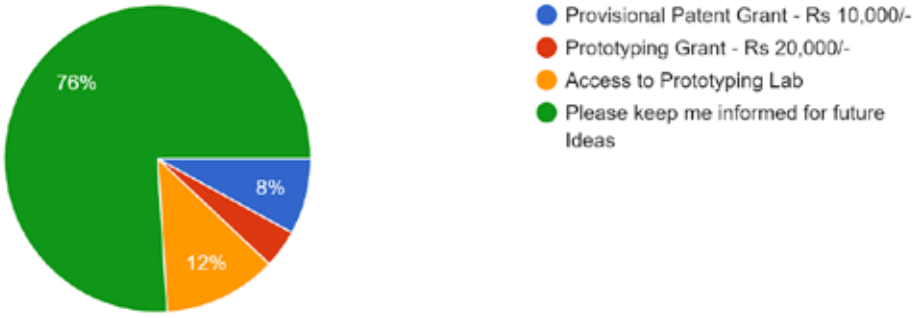
Please rate the speaker's knowledge of the topic:

25 responses



Do you want to apply for the following Schemes?

25 responses



10

FACULTY DEVELOPMENT PROGRAM

Chapter 10
FACULTY DEVELOPMENT PROGRAM

"Scientific knowledge is in perpetual evolution;
it finds itself changed from one day to the next.."

- Napoleon Hill

10.1 Introduction

Entrepreneurship development is a crucial step towards understanding fundamental aspects of entrepreneurial growth. To facilitate this, we require an able team of teachers who can help the next generation imbibe entrepreneurial skills. Keeping this in mind, the GSInC has initiated the Faculty Development Programme (FDP).

FDP is aimed at training faculties in entrepreneurship development so that they can guide and mentor young science and technology students and cultivate a culture of innovation, leading to the vision of a self-reliant India.

These sessions are conducted at:

- Science and Engineering Colleges
- Polytechnic Institutes
- Industrial Training Centres

The topics covered include:

- Entrepreneurship development
- Communication and interpersonal skills
- Creativity
- Problem-solving
- Motivation training
- Being resourceful and industry ready

The training methodology comprises engaging hands-on workshops, analyzing case studies, team exercises and interactions with eminent personalities, entrepreneurs and industry personnel.

Schedule:

Table 10.1: Schedule of Faculty Development Program

Date	Start Time	End Time	Topics	Speakers
19th Nov	11:00 AM	11:30 AM	Registration	
	11:30 AM	1:00 PM	How to convert an Idea into an Enterprise?	Mr Gajanan Nagarshekar, Managing Director - Kallows Engg India Pvt Ltd
	1:00 PM	2:00 PM	Lunch break	
	2:00 PM	3:00 PM	Opportunity recognition in S & T student projects	Smt Suwarna Surlakar, Director, Funminds Learning Tech Pvt. Ltd
	3:00 PM	3:15 PM	Break	
20th Nov	10:00 AM	12:00 PM	Establishing Entrepreneurship Cell at Institutes Curriculum Development for EAC Development of Calendar of Events for Entrepreneurship Cell	Mr Amit Singh, Regional Manager, Central India,National Entrepreneurship Network (NEN)
	1:00 PM	2:00 PM	Lunch Break	
	2:00 PM	5:00 PM	Creativity and Problem Solving + Activity Based Session	Mr Abhay Valsangkar, Founder, Alter Ego Learning

	10:00 AM	1:00 PM	Role of EDII, How to Identify, Select & Support Potential Student Entrepreneurs?	Dr. Satya Ranjan Acharya, Entrepreneurship Development Institute of India (EDII)
26st Nov	1:00 PM	2:00 PM	Lunch Break	
	2:00 PM	5:00 PM	Idea to Prototype - 3D Printing Workshop	Mr Ryan Vaz, Founder - 3DInfinyt Technology
	10:00 AM	11:15 AM	Role of Support agencies in promoting Startups–Banks, DIC, etc	Mr DS Prashant CEO - FIIRE
	11:15 AM	11:30 AM	Break	
27th Nov	11:30 AM	1:00 PM	Do we need an IP for our Ideas? Patenting & IPO	Smt Shalini Menezes Founder - Sim Sim Legal Consultations
	1:00 PM	2:00 PM	Lunch Break	
	2:00 PM	4:00 PM	Developing Business Model for Techno-startups	Smt Mridula Goel, Faculty, BITS Pilani K.K. Birla Goa Campus

10.2 Status Report

Program Conducted: 4

A Faculty Development Program was conducted by the Goa State Innovation Council through an online Zoom meeting App for the faculty of various colleges in the State of Goa in Nov 2020. The event saw a good turnout with 30 teachers from different institutes.

The event was also attended by various eminent personalities. The Keynote Address was delivered by Mr Gajanan Nagarshekar, Managing Director - Kallows Engg India Pvt Ltd. Other dignitaries spoke on turning an idea into an enterprise and opportunity recognition.

This was followed by an engaging workshop on How to Developing your own Tech Startups. The list of speakers at the event were:

- Smt Suwarna Surlakar
- Mr Amit Singh
- Mr Abhay Valsangkar
- Dr. Satya Ranjan Acharya
- Mr Ryan Vaz
- Mr D S Prashant
- Smt Shalini Menezes
- Smt Mridula Goel

The objective of the program were as follows:

- Training the teachers to be well-equipped with skills that nurture innovation
- Training teachers to help young minds develop innovative and creative thinking approach
- Help to make the current scenario of innovation in the state better
- Equip them to become resource persons and guide and motivate young scientific minds
- Help students realize startup ecosystem as a career possibility
- Help students understand the policies and inform them about the activities taken up by the Government of Goa in promoting innovation and creativity.

Day 1 - 19th November 2020

- The Key Note Address was delivered by Mr Gajanan Nagarshekar, Managing Director - Kallows Engg India Pvt Ltd addressing the most important question - How to convert an Idea into an Enterprise?
- Smt Suvarna Sulekar, Codewell Computers spoke on various Opportunity recognition in S & T student projects

Day 2 – 20th September 2020

- Mr Amit Singh, Regional Manager, Central India, National Entrepreneurship Network (NEN) spoke on Establishing Entrepreneurship Cell at Institutes Curriculum Development for EAC Development of Calendar of Events for Entrepreneurship Cell
- Mr Abhay Valsangkar, Founder, Alter Ego Learning conducted a seminar on Creativity and Problem Solving + Activity Based Session
- Founder, Alter Ego Learning conducted the workshop on Creativity and Problem Solving

Day 3 – 26th November 2020

- Dr. Satya Ranjan Acharya, Entrepreneurship Development Institute of India (EDII) explained the Role of EDII, How to Identify, Select & Support Potential Student Entrepreneurs
- An Idea to Prototype - 3D Printing Workshop was conducted by Mr Ryan Vaz, 3DInfinyt Technology

Day 4 – 27th November 2020

- Mr. D S Prashant, CEO, Forum For Innovation Incubation Research and Entrepreneurship (FiiRE) explained the role of Support agencies in promoting Startups
- Smt Shalini Menezes spoke on Intellectual Property Rights and Do we need an IP for our Ideas?
- Smt Mridula Goel, Faculty, BITS Pilani K. K. Birla Goa conducted a workshop on Developing Business Model for Techno-startups

Vote of thanks was given by Shri Sudip Faldesai, Project Officer, GSInC.

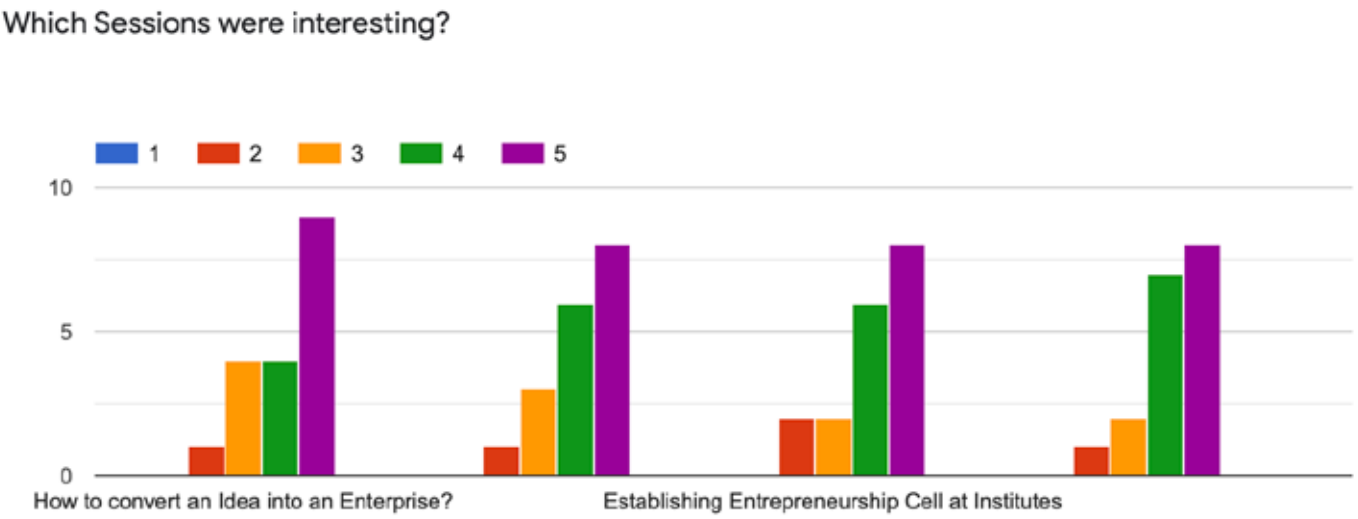
10.3 List of Participants

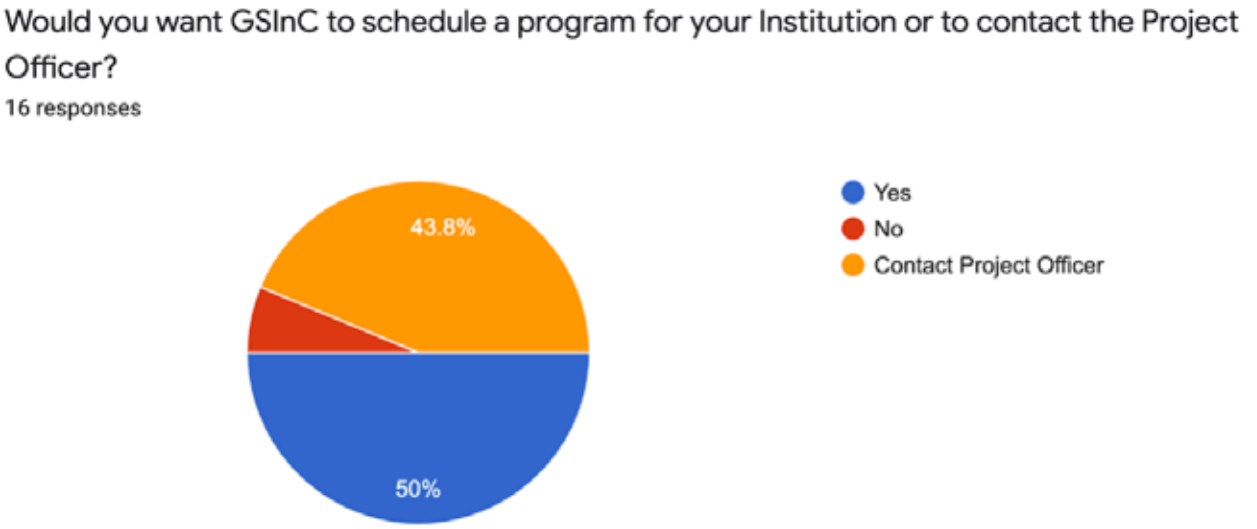
Table 10.3: List of Participants

Sr. No.	Name of the participants	Name of the Institute
1	Smt Vinita D'Sa	Carmel College for Women, Nuvem
2	Smt Andrea D'Souza	Carmel College for Women, Nuvem
3	Smt Karen Braganza	Carmel College for Women, Nuvem
4	Smt Preeti Pereira	Carmel College for Women, Nuvem
5	Smt Soniya Dessai	Carmel College for Women, Nuvem
6	Smt Swizzle Furtado	Carmel College for Women, Nuvem
7	Smt Linda Albuquerque e. Almeida	Don Bosco College of Engineering, Fatorda
8	Smt Michelle Lilian Araujo e Viegas	Don Bosco College of Engineering, Fatorda
9	Shri Gaurish M Samant	Don Bosco College of Engineering, Fatorda
10	Smt Jyoti Lewis	Don Bosco College of Engineering, Fatorda
11	Shri Paresh Panshikar	Government Polytechnic Curchorem , Cacora
12	Shri Mahesh Matha	Parvatibai Chowgule College Of Arts & Science, Margao
13	Smt Ashweta Anand Fondekar	Parvatibai Chowgule College Of Arts & Science, Margao
14	Dr. Mayuri Naik	Parvatibai Chowgule College Of Arts & Science, Margao
15	Smt Alka Gawas	Parvatibai Chowgule College Of Arts & Science, Margao
16	Smt Vanessa Colaco	Parvatibai Chowgule College Of Arts & Science, Margao
17	Mr Ramkrishna Reddy	Rosary College of Commerce and Economics, Navelim
18	Shri Leonard Joanes	Rosary College of Commerce and Economics, Navelim
19	Shri Rajesh Mehrotra	BITS Pilani Goa, Zuarinagar
20	Smt Rashmi Chauhan	BITS Pilani Goa, Zuarinagar
21	Shri Devendra Gokul Patil	BITS Pilani Goa, Zuarinagar
22	Shri Ramesha C.K	BITS Pilani Goa, Zuarinagar
23	Shri Ramprasad S. Joshi	BITS Pilani Goa, Zuarinagar
24	Shri Ranjit S. Patil	BITS Pilani Goa, Zuarinagar
25	Shri Suman Gupta	BITS Pilani Goa, Zuarinagar
26	Smt Amrita Chatterjee	BITS Pilani Goa, Zuarinagar
27	Smt Basavadatta Mitra	BITS Pilani Goa, Zuarinagar
28	Shri Debasis Patnaik	BITS Pilani Goa, Zuarinagar

29	Shri Vijayashree Nayak	BITS Pilani Goa, Zuarinagar
30	Shri Mohan Kumar Bera	BITS Pilani Goa, Zuarinagar
31	Dr. Karuna Singh	S.S. Dempo College of Commerce and Economics, Bambolim
32	Smt Nilaxi Chari	Goa Multi-Faculty College, Piliem
33	Shri Neelesh S. Morajkar	Goa Multi-Faculty College, Piliem

Feedback


Which Sessions were interesting?
1
2
3
4
5
10
5
0
How to convert an Idea into an Enterprise?
Establishing Entrepreneurship Cell at Institutes


Would you want GSInC to schedule a program for your Institution or to contact the Project Officer?
16 responses
43.8%
50%
Yes
No
Contact Project Officer

11

WOMEN CENTRIC WORKSHOP

Chapter 11
WOMEN CENTRIC WORKSHOP

"Women belong in all places where decisions are being made.
It shouldn't be that women are the exception."

- Ruth Bader Ginsburg

Today's woman is strong and determined. She wants to live her life on her own terms. She wants to explore her potential to the fullest and make her mark on the world. Today's woman is an empowered woman. We at GSInC have always played an important role in supporting ambitious women and foster entrepreneurship amongst them.

GSInC has been organising regular workshops and seminars for enterprising women in Goa. The aim of this initiative is to harness creative and ideation power of women and give them a platform to chase their entrepreneurial dreams.

These workshops equip women to scale their ideas up into independent undertakings and nurture them into flourishing enterprises. The participants are made aware of the various government schemes and funding opportunities to help them in their further endeavours. The workshop includes mentoring, hand-on training and informative seminars.

The workshops focus on reflection, discussion, and exercises that allow the participants to open up on topics that may have been previously uncharted. We provide a structure for conversations that can go a long way in creating bonds between individuals who have had success and failure, even if it doesn't look the same for each person. Our methodology ensure that women who haven't previously interacted find comfort in a common task and are able to form deeper relationships.

Our goal is that every participant should walk away with tools that they are able to put into practice to lead and live with greater confidence and passion. The tools may be different based on the group's goals, but each woman walks away today feeling empowered to make a change—large or small—tomorrow.

Schedule:

Table 11.1: Schedule of Women Centric Workshop

Sr. No.	Agenda
1	Introduction of Goa State Innovation Council & VIR Speaker: Project Officer, GSInC
2	Ideation with a focus on Problem-solving, Creativity, Innovation Speaker: Ms Farheen Sayed, Founder, Brushflicks
3	Tea Break
4	Ideation with a focus on Problem-solving, Creativity, Innovation Speaker: Mrs. Suwarna Surlakar, Director, Funminds
5	How to convert an Idea into an Enterprise? Speaker: Ms. Poonam Shirsat, Founder, Skill Company
6	Various Government Funds and Schemes assistance for starting up Speaker: Project Officer, GSInC

11.2 Status Report

Webinars conducted: 1

Total participants: 75

With an objective to create the necessary ecosystem to develop entrepreneurial skills among students, a women Centric Webinar was organised by Goa State Innovation Council at Goa College of Home Science College. The event was attended by 75 participants.

The seminars and activities focused on encouraging women to dream big and enabling them to turn their dreams into reality. GSInC made the webinar relevant to the changing times with seminars and activities that focussed on problem-solving, innovation and developing ideas into scalable solutions using the available resources and infrastructure of the state. The interactive sessions also touched upon the existing government schemes for women to assist them to procure funds and clearances they need to build their ventures.

Goa College of Home Science College, Dayanand Bandodkar Road, Opposite Parade Ground Campal, Panaji, Goa	26/03/2021	10 am - 12 pm

12

STEM - THINK DESIGN PROTOTYPING WORKSHOP

Chapter 12
STEM - THINK DESIGN PROTOTYPING WORKSHOPS

"Just like a picture is worth a thousand words,
a prototype is worth a thousand meetings."

- IDEO

12.1 Introduction

Prototyping means producing low-cost/no-cost representations of programs, services, and products in ways that make it easy for end-users and investors to share feedback, ideas, and perspectives on what you've built.

Prototyping is an approach that moves a project towards action through the production of early, inexpensive, and scaled-down versions of the product, program, or service to reveal problems with the current design. It brings ideas to life, tests their practicality, and highlights how a sample of end-users might think and feel about what you've created. In design thinking, designers use prototypes to observe, record, judge and measure an end user's general behavior, interactions, and reactions to the overall design.

This prototyping is a science and art. The more information and material and design specifications you have researched and have ready, the faster it will be to complete a product or line. This seamless transformation from idea to prototype needs meticulous training. GSInC's Think Design Prototyping Workshops make it happen. Conducted at the Prototyping Lab established at Don Bosco College of Engineering, Fatorda, by Goa State Innovation Council, Government of Goa, these workshops provide innovators from all walks of life the necessary infrastructure to transform their ideas into tangible models or prototypes.

These workshops equip the participants with knowledge of the latest technology and tools, like an advanced 3D Printer and a powerful Laser Cutting Machine available at GSInC's prototyping lab. These workshops enable innovators to freely tinker around with ideas until they can refine them to the point of idealization.

GSInC organizes these Prototyping workshops across schools and colleges in Goa to help students innovate, conceptualize and scientifically shape their ideas.

12.2 List of Workshops

Today's youth needs direction. Their thoughts need to be molded. And their dreams need to be nurtured. GSInC is committed to doing just that. GSInC's mission is to develop and foster the spirit of innovation in the youth of Goa. The Council has constructed a state-of-the-art Prototyping lab which is one of its kind in the state that allows students to think freely and experiment to refine their ideas.

In line with its objectives, GSInC organized several prototyping workshops across the state in 2019-20 to acquaint students with the facilities available in the lab.

The informative and hands-on sessions were held for schools in both the larger and quaint parts of Goa on Robot Building, Laser Engraving, 3D-Printing, etc.

The students thoroughly enjoyed the sessions and learned how to use the equipment in the lab on their own to bridge the gap between ideation and implementation.

Total number of sessions conducted: 40

Total Number of participants: 6023

Table 12.1: List of Workshops

Sr. No.	Date	Time	Session Details	No. of Participants
1	3.8.2020	3:00 pm - 5:00 pm	3D Printing - Additive Manufacturing for Innovative Product Development Speaker: Mr. Ryan Vaz, Infinyt3D, Goa	75
2	13.8.2020	3:00 pm - 5:00 pm	Prototyping Session - Robotics | Plan, Design, & Prototype Speaker: Ms Sunaya Shirodkar, Asier Pvt Ltd, Goa	37
3	15.8.2020	3:00 pm - 5:00 pm	Laser Cutting - Subtractive Manufacturing for Innovative Product Development Speaker: Mr. Rakesh Agarwal, Laser Technologies, Delhi	43
4	19.8.2020	3:00 pm - 5:00 pm	Rapid Prototyping using 3D Printers Speaker: Mr. Ryan Vaz, Infinyt3D, Goa	41
5	21.8.2020	3:00 pm - 5:00 pm	Rapid Prototyping using 3D Printers Speaker: Mr. Ryan Vaz, Infinyt3D, Goa	76
6	25.8.2020	3:00 pm - 5:00 pm	Prototyping Session - Robotics | Plan, Design, & Prototype Speaker: Ms Sunaya Shirodkar, Asier Pvt Ltd, Goa	79
7	29.09.2020	3:00 pm - 5:00 pm	Prototyping Session using 3D Printing for Final Year Engineering Students Speaker: Mr. Ketan Naik & Mr. Pranay Dhavaskar, Asier Pvt Ltd, Goa	254
8	14.10.2020	3:00 pm - 5:00 pm	Prototyping Session using Laser Cutting Machine for Final Year Engineering Students Speaker: Mr. Ketan Naik & Mr. Pranay Dhavaskar, Asier Pvt Ltd, Goa	246
9	20.10.2020	3:00 pm - 5:00 pm	Prototyping Session using Laser Cutting Machine Mr. Ryan Vaz, Infinyt3D, Goa	221

10	4.11.2020	3:00 pm - 5:00 pm	Prototyping Session - Image Processing in Defence Industry Speakers: Mr. Debasis Doki and Mr. Jon Srivastava, Dronile, Bangalore	91
11	6.11.2020	3:00 pm - 5:00 pm	Prototyping Session - Robotics | Plan, Design, & Prototype Speaker: Ms Sunaya Shirodkar, Asier Pvt Ltd, Goa	79
12	13.11.2020	3:00 pm - 5:00 pm	Prototyping Session - Image Processing in Defence Industry Speakers: Mr. Debasis Doki and Mr. Jon Srivastava, Dronile, Bangalore	87
13	21.11.2020	3:00 pm - 5:00 pm	Prototyping Session - Image Processing in Defence Industry Speakers: Mr. Debasis Doki and Mr. Jon Srivastava, Dronile, Bangalore	54
14	23.11.2020	2:00 pm - 4:00 pm	3D Printing - Additive Manufacturing for School students Speaker: Mr. Ryan Vaz, Infinyt3D, Goa	115
15	4.12.2020	2:00 pm - 4:00 pm	Prototyping Session - Robotics for College Students Speaker: Mr. Ketan Naik & Mr. Pranay Dhavaskar, Asier Pvt Ltd, Goa	57
16	9.12.2020	2:00 pm - 4:00 pm	Prototyping Session - Drone Avatiation for College Students Speakers: Mr. Debasis Doki and Mr. Jon Srivastava, Dronile, Bangalore	957
17	26.12.2021	2:00 pm - 4:00 pm	Prototyping Session - Robotics for College Students Speaker: Mr. Ketan Naik & Mr. Pranay Dhavaskar, Asier Pvt Ltd, Goa	51
18	29.12.2021	2:00 pm - 4:00 pm	Prototyping Session - Robotics for School Students Speaker: Mr. Ketan Naik & Mr. Pranay Dhavaskar, Asier Pvt Ltd, Goa	64

19	31.12.2021	2:00 pm - 4:00 pm	Prototyping Session - Robotics | Plan, Design, & Prototype Speaker: Mr. Ketan Naik & Mr. Pranay Dhavaskar, Asier Pvt Ltd, Goa	90
20	4.1.2021	2:00 pm - 4:00 pm	Prototyping Session in Missile Technology - Control & Guidance Speakers: Mr. Debasis Doki and Mr. Jon Srivastava, Dronile, Bangalore	100
21	7.1.2021	3:00 pm - 5:00 pm	Prototyping Session - Robotics | Plan, Design, & Prototype Speaker: Mr. Ketan Naik & Mr. Pranay Dhavaskar, Asier Pvt Ltd, Goa	41
22	8.1.2021	3:00 pm - 5:00 pm	Design thinking - A Human-centric Design Approach Speaker: Mr. Sumukh Kamat, Energy Footprint, Goa	357
23	20.1.2021	3:00 pm - 5:00 pm	Prototyping Session - Robotics | Plan, Design, & Prototype Speaker: Mr. Ketan Naik & Mr. Pranay Dhavaskar, Asier Pvt Ltd, Goa	78
24	22.1.2021	3:00 pm - 5:00 pm	Prototyping Session - Robotics | Plan, Design, & Prototype Speaker: Mr. Ketan Naik & Mr. Pranay Dhavaskar, Asier Pvt Ltd, Goa	20
25	4.2.2021	3:00 pm - 5:00 pm	Prototyping Session in Missile Technology - Control & Guidance Speakers: Mr. Debasis Doki and Mr. Jon Srivastava, Dronile, Bangalore	741
26	5.2.2021	10:00 am to 1:00 pm	Prototyping Session in Missile Technology - Control & Guidance Speakers: Mr. Debasis Doki and Mr. Jon Srivastava, Dronile, Bangalore	524
27	11.2.2021	3:00 pm - 5:00 pm	Prototyping Session - Robotics | Plan, Design, & Prototype Speaker: Mr. Ketan Naik & Mr. Pranay Dhavaskar, Asier Pvt Ltd, Goa	31

28	18.2.2021	3:00 pm - 5:00 pm	Prototyping Session in Missile Technology - Control & Guidance Speakers: Mr. Debasis Doki and Mr. Jon Srivastava, Dronile, Bangalore	77
29	18.2.2021	3:00 pm - 5:00 pm	Prototyping Session on Ideation using Robotics for School Students Speaker: Mrs. Suwarna Surlakar, Funminds, Goa	73
30	20.2.2021	3:00 pm - 5:00 pm	Design thinking - A Human-centric Design Approach Speaker: Mr. Sumukh Kamat, Energy Footprint, Goa	49
31	23.2.2021	3:00 pm - 5:00 pm	Prototyping Session - Robotics | Plan, Design, & Prototype Speaker: Ms Sunaya Shirodkar, Asier Pvt Ltd, Goa	90
32	4.3.2021	3:00 pm - 5:00 pm	Prototyping Session on Ideation using Robotics for School Students Speaker: Mrs. Suwarna Surlakar, Funminds, Goa	95
33	9.3.2021	3:00 pm - 5:00 pm	Prototyping Session - Robotics | Plan, Design, & Prototype Speaker: Ms Sunaya Shirodkar, Asier Pvt Ltd, Goa	100
34	11.3.2021	3:00 pm - 5:00 pm	Prototyping Session on Ideation using Robotics for School Students Speaker: Mrs. Suwarna Surlakar, Funminds, Goa	56
35	12.3.2021	3:00 pm - 5:00 pm	Prototyping Session on Ideation using Robotics for School Students Speaker: Mrs. Suwarna Surlakar, Funminds, Goa	78
36	13.3.2021	3:00 pm - 5:00 pm	Prototyping Session on Drone Aviation Speaker: Mr. Tarun K, Ulavan, Goa	148
37	16.3.2021	3:00 pm - 5:00 pm	Prototyping Session - Robotics | Plan, Design, & Prototype Speaker: Ms Sunaya Shirodkar, Asier Pvt Ltd, Goa	35
38	19.3.2021	3:00 pm - 5:00 pm	Prototyping Session - Robotics | Plan, Design, & Prototype Speaker: Ms Sunaya Shirodkar, Asier Pvt Ltd, Goa	341

39	20.3.2021	3:00 pm - 5:00 pm	Prototyping Session in Drone Aviation Speaker: Mr. Tarun K, Ulavan, Goa	100
40	20.3.2021	3:00 pm - 5:00 pm	Prototyping Session in Drone Aviation Speaker: Mr. Tarun K, Ulavan, Goa	172

12.3 Status Report

The topics included:

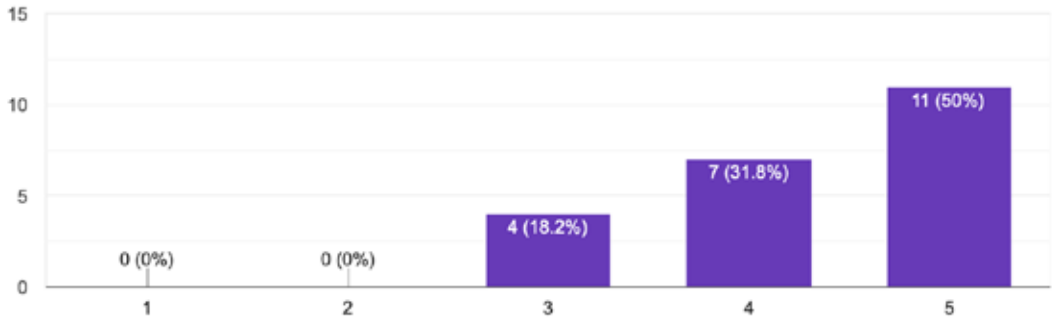
- Robot Building
- Laser Cutting
- Engraving
- Drone Building
- 3D printing

The aim of these sessions was to apprise the students of the latest technologies and facilities available for them to prototype their ideas. By learning how to use these tools, the students can work freely in the Prototyping lab to give shape to their ideas and gradually refine them into market-ready models.

Feedback:

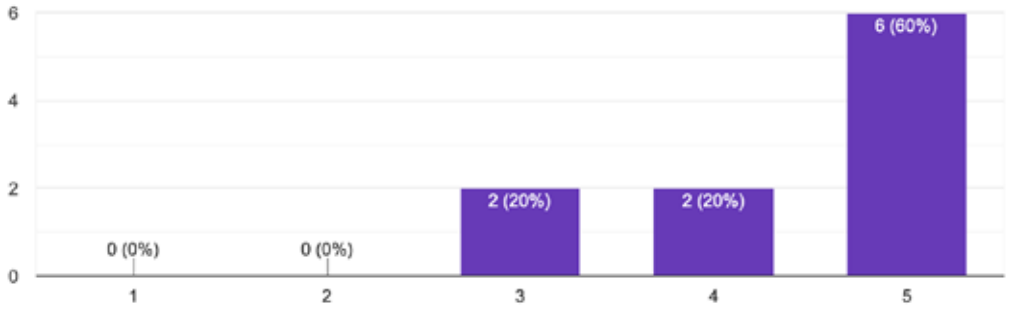
Was the Session interesting and relevant to you?

22 responses



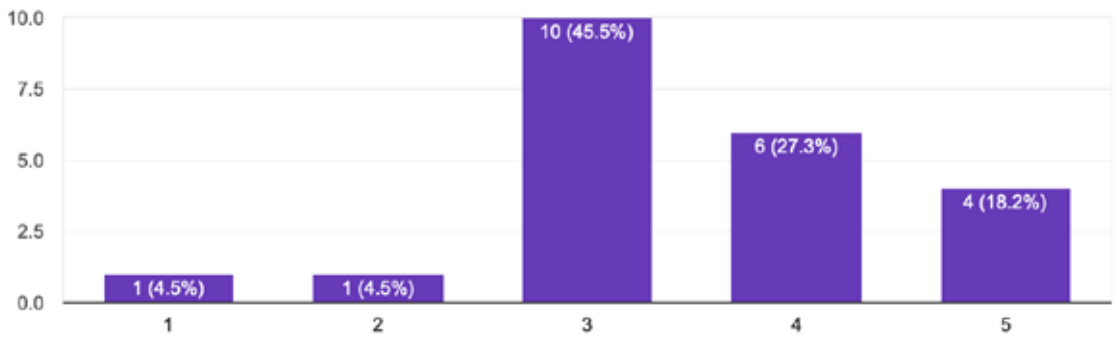
Was the Session interesting and relevant to you?

10 responses



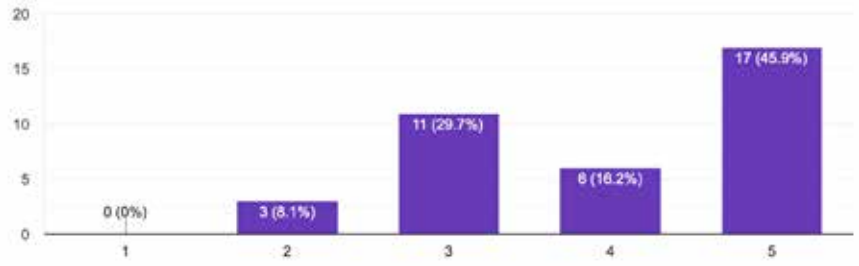
Did the Session help you to understand money management?

22 responses



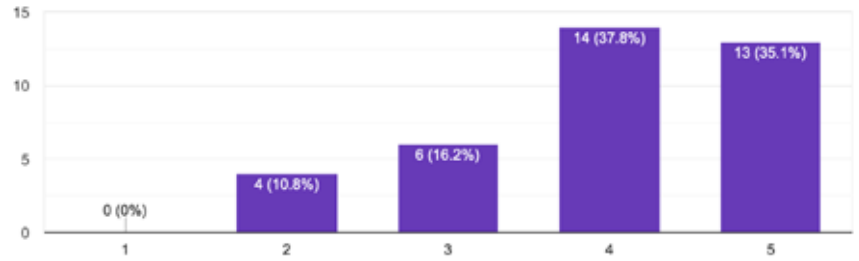
Was the Session interesting and relevant to you?

37 responses



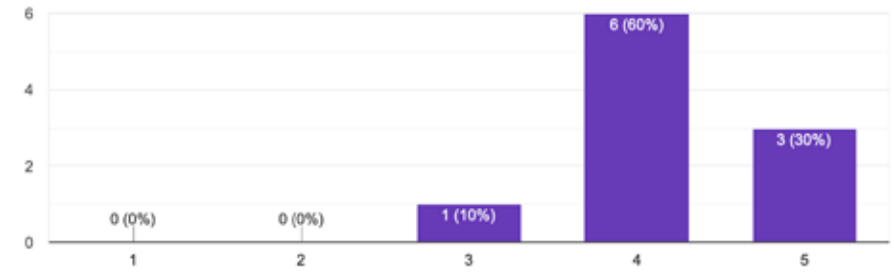
Did the Session help you to understand Design Innovation?

37 responses



Did the Session help you to understand Prototyping using Laser Cutting?

10 responses



"Very well presented and expressed by Mrs. Shirodkar"

Meezia Rodrigues

"Robotics was very well explained by Sunaya mam"

Kavita Sanjivkumar Kubal

"Good work. Keep it up."

Sarojini Sushant Dessai

"It was informative and interesting."

Jyoti Lewis

"Workshop was very good."

Ronan Barreto

"Would be nice to have more such sessions."

Alysia Fernandes

"Very nice webinar ."

Raviraj Mangaldas Gaonkar

"Good and an interesting one."

Shivani Parsekar

13

RISK CAPITAL

Chapter 13
RISK CAPITAL

"The biggest risk
is not taking a risk."

- Mark Zuckerberg

13.1 Introduction

People are catching up with the startup culture in India. Moreover, the government is giving startup sector a boost by unveiling new incubator. In such a circumstance, for a venture capitalist selecting the right start-ups has become crucial than ever. Venture capitalists are interested if the right set of people are running a startup and offering the right incentives at the right terms. They are always looking out for people who are not just entrepreneurs but understand what entrepreneurship is all about. So in this highly competitive start-up market, you need to attract the eye of a venture capitalist. It is imperative to make your business pitch a more appealing investment. But how do you do so?

The key step is to make your business Idea heard. This is possible when a thinker / innovator knows how to pitch an idea to an investor or a Company. It is essential to master how to pitch a startup idea. As we know, Brevity is the soul of the wit, it is essential that you know how keep the pitch short and crisp.

Entrepreneurs have such impactful ideas in their head that will certainly take the world by storm. But sadly 80% of them struggle to get proper business funding in the long run therefore these ideas never turn into successful projects. A huge gap exists between having a business idea and implementing it, this gap can be filled by raising proper funding. The most important thing to keep in mind when you pitch a business idea to an investor is to answer the most important questions your audience is expecting.

One must not forget that investors are continuously chased for funding. So the trick is don't chase investors rather let investors chase an innovator. Funding is required irrespective of which stage the idea is in. Even big companies are thinking about how to become bigger.

Goa State Innovation Council organizes online sessions to help budding entrepreneurs attract venture capitalists. The objective of the session is to upskill the Startups and Innovators with the skills and knowledge about startup fundraising and VC Capital.

TITLE: Online session on What attracts Venture Capital
Date: 15th Oct 2020, Thursday | Time: 03:00pm - 04:30pm

Schedule:

Table 13.1: Schedule of Risk Capital Session

Duration	Agenda
15 mins	Introduction to the session
60 mins	What Attracts Venture Capital? Current Investment Trends Options for Capital Raising for early stage businesses – Angel, VC, Venture Debt, Crowd Funding, ICO etc. Process of Capital Raising How big is the opportunity? Market Size and Addressable Market Valuation Case Studies and Methods Deal Structuring What is a Termsheet Various clauses of Termsheet (Shareholding, Preemption rights, Anti-dilution right, exit clause, liquidation clause, ROFR/ ROFO, Co-sale and Tag Along Right, Reserved Matters, Founders Lock-In, CPs, Exclusivity etc.) Preparing for Due-Diligence Process S hareholders Agreement Exit and Case Studies on Exit
30 mins	Q&A, Feedback & Vote of Thanks

About the Speaker:

Vikrant, having worked with organisations such as Springboard Ventures, JP Morgan and Mumbai Angels, has expertise in Venture Capital and Investment Banking. He has worked on transactions upwards of INR 200 Crores. He has closely worked in equity fund raising execution across sectors such as consumer, pharma, technology and healthcare. Currently heads SP-TBI, a DST funded incubator and is a visiting faculty of Entrepreneurship and Venture Capital in leading Indian B-Schools and Startup Accelerators.

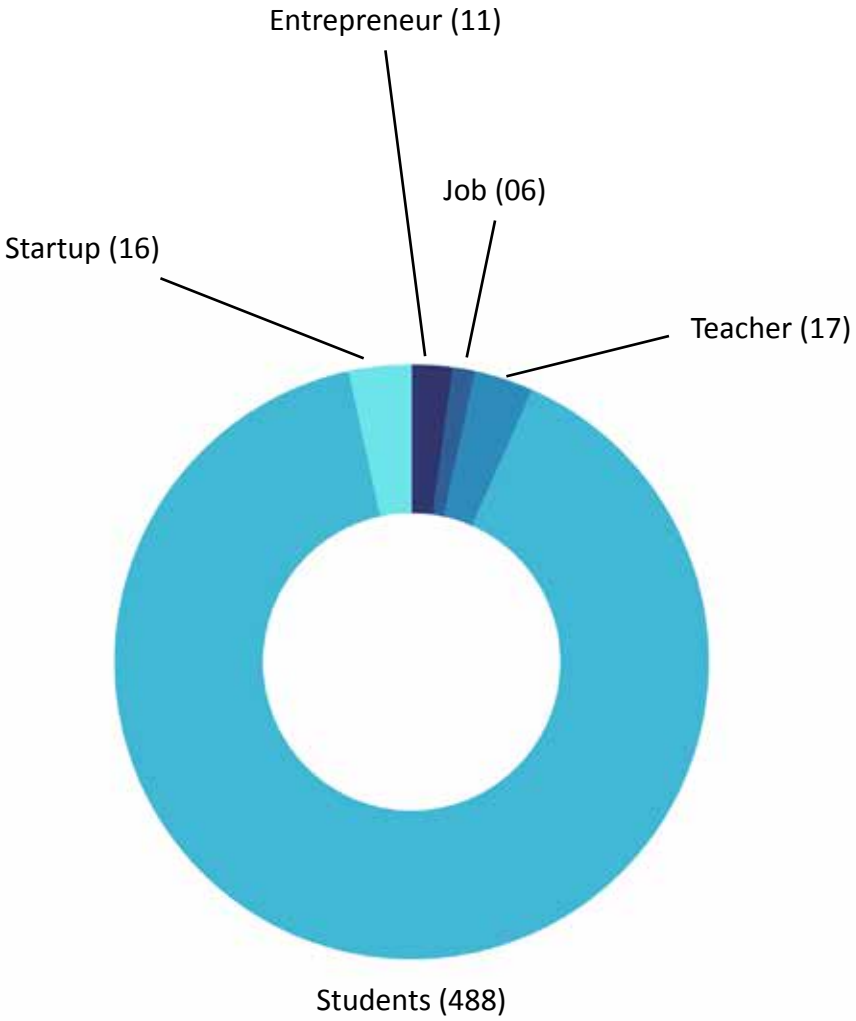
13.2 Status Report

Total number of Participants for the session: 957

Registration Details:

Entrepreneur	11
Job	6
Startup	16
Student	448
Teacher	17
Grand Total	**498**

Photograph: 13.2: Participants registered for the session



14

ENTREPRENEURSHIP AND FINANCIAL LITERACY

Chapter 14
ENTREPRENEURSHIP AND FINANCIAL LITERACY

"Never spend your money
before you have it."

- Thomas Jefferson

14.1 Introduction:

One thing many entrepreneurs struggle with is money management. You can have the greatest idea on the planet, but if you can't keep cash flow going and feeding your business, it will starve out. It is important to develop smart money habits within your startup right from Day One. It is crucial to make good financial management an integral part of your company's culture.

Launching a start-up can be an expensive process because. There are various startup costs that one must consider. Business premises, equipment, staff, inventory, software, wages, and security, just to name a few important costs. It is important to calculate these costs and then find a way to reach this figure so that you can get your startup running to a high standard from the very start.

So what are funding options that an entrepreneur can consider?

The Goa State Innovation Council in association with Kids Finance Initiative organised an online seminar on Entrepreneurship and Financial literacy. The objective was to equip the student with critical life skills on money management and to build an entrepreneurial mind set.

Topic :– Five ways this one skill turbocharge your future
Date :- 29th September, 2020
Time :- 11:00 am to 12:00 pm

About Kids Finance Initiative

Kids Finance Initiative is a Dubai based organization founded by Marilyn L. Pinto that has brought a number of innovative and ground-breaking programs to the UAE and beyond. We equip kids with critical life skills that aren't taught in school. By conducting in-depth programs and not just workshops, we built a deeper understanding of the various topics we teach. By engaging with parents, we ensured that the kids' cycle of learning is deeper. By building relationships with the kids, we instill in them a curiosity for learning that will outlast our interaction with them We believe that kids are capable of learning, understanding, and doing so much more than we give them credit for.

Our two flagship programs are 'Money Management for Kids & Teens' & "Entrepreneurship with A Twist'.

Money Management for Kids & Teens:
Our kids are going to make financial decisions throughout their lives, and as parents, it's up to us to ensure that they're prepared to face them intelligently. This program gives them just that—the understanding and the confidence to make conscious money decisions. This skill isn't just something nice to have; it is a social imperative.

Entrepreneurship with A Twist:
Teaching entrepreneurship to kids is fantastic and but we need to do it right and not gloss over the hard bits. We need to show them how to develop an entrepreneurial mindset – to problem solve, to make mistakes, to be curious, to be fearless, to want to give back and be part of something bigger. Only then can they grasp its true meaning.

At KFI, we are passionate about helping kids realize their potential, igniting their curiosity, and stretching the horizons of their minds. We help them overcome their limiting beliefs and encourage them to achieve more than they think they are capable of. That's what we mean by #EducationReimagined. The concepts and ideas aren't ours, we've borrowed them from Robert Kiyosaki, Tony Robbins, Beth Kobliner, Daniel Goleman, Dr Carol Dweck, William Deresiewicz, Dan Ariely, T Harv Eker, Angela Duckworth, and other prominent authors
and scientists.

What is ours is the premise that we can teach this to kids in a way that they can understand and use it. Our programs are fun, full of profound knowledge, and packed with skills they need for a future built on their own terms. Kids Finance Initiative not only has skin in the game, but also, more importantly, we have our heart there too.

Goa State Innovation Council

GOA STATE INNOVATION COUNCIL
Department of Science & Technology, Government of Goa
Secretariat
Don Bosco College of Engineering, Fatorda,
Margao, Goa - 403602 | (O) 0832 274 3944 | (E) admin@gsic.in
www.goastateinnovationcouncil.com

No.DBCE/GSInC/2020-21/13

23/09/2020

To,

The Principal

Sub: Online seminar on Entrepreneurship and Financial literacy

Sir,

The Goa State Innovation Council in association with Kids Finance Initiative is organising online seminar on Entrepreneurship and Financial literacy to equip the student with critical life skills on money management and to build an entrepreneurial mind set.

Topic :– Five ways this one skill turbocharge your future
Date :- 29th September, 2020
Time :- 11:00 am to 12:00 pm

We request you to nominate students for the seminar.

Kindly register on: https://forms.gle/YPEBfrWWKQTNKFEr8

Certificates will be provided. For any further information or query, contact Shri Sudip Faldesai, Project Officer at 9886270270.

Thanking you.

Yours Sincerely,

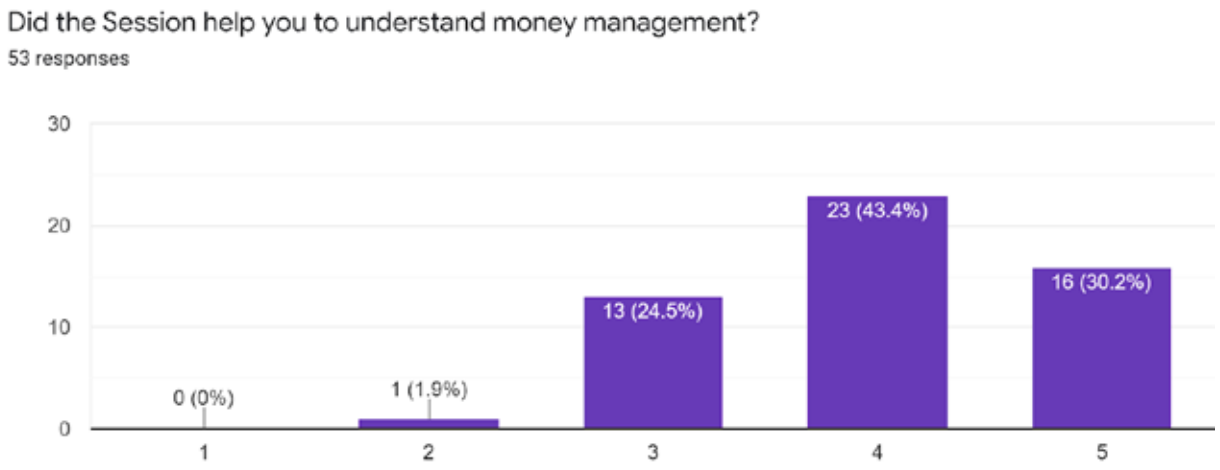
Sudip Faldesai,
Project Officer

14.2 Status Report

Table 14.1: List of Institute

Name of the Institute	No. of Participants
Cuncolim Educational Society's College of Arts & Commerce (CES)	28
Don Bosco College of Engineering	2
Goa College of Engineering	11
Goa Multi Faculty College Dharbandora, Goa	138
Government college of Arts Science and Commerce Quepem, Goa	67
Government College of Arts, Science and Commerce Khandola	6
MES College Arts and Commerce	19
Padre Conceicao College of Engineering	15
Rosary College Of Commerce And Arts Navelim Margao, Goa	12
Shree Mallikarjun College, Canacona, Goa	2
Grand Total	**300**

Feedback:


Did the Session help you to understand money management?
53 responses
30
20
10
0
0 (0%)
1 (1.9%)
13 (24.5%)
23 (43.4%)
16 (30.2%)
1
2
3
4
5

15

OTHER ACTIVITIES MATTERS DEALT WITH THE COUNCIL

Chapter 15
OTHER ACTIVITIES MATTERS DEALT WITH THE COUNCIL

"Never spend your money
before you have it."

- Thomas Jefferson

Visit of the Department related to Parliamentary Standing Committee on Commerce to Goa from 21st to 23rd January 2021 on the subject "Review of Intellectual Property Rights Regime in India"

15.1 Introduction:

MOST IMMEDIATE
Parliament Matter

F.No.24011(12)/10/2020-IPR-III
Government of India
Ministry of Commerce & Industry
Department for Promotion of Industry & Internal Trade
IPR-Patents Section
***

UdyogBhawan, New Delhi
Dated the 7th January, 2021

To,

Shri. Jose Manuel Noronha, Chairman
Goa State Innovation Council
Don Bosco College of Engineering,
Fatorda - Margao
Goa – 403602
Tel: 0832 274 3944

Subject: **Visit of the Department Related Parliamentary Standing Committee on Commerce to Goa from 21st to 23rd January, 2021 on the subject 'Review of Intellectual Property Rights Regime in India'**

Sir,

I am directed to state that the DRPSC on Commerce has decided to undertake a study visit to Goa from 21st January to 23rd January, 2021, on the subject 'Review of the Intellectual Property Rights Regime in India' and to hold discussion with various stakeholders including representatives of the Governments of Maharashtra, Goa, Dadra & Nagar Haveli and Daman & Diu. A copy of each of the composition of the Committee and the tentative tour programme of the Committee are enclosed herewith. In this connection, the Committee will discuss the subject with the representative of Goa State Innovation Council at 2;00 PM on 21.1.2021. The venue of the meeting will be communicated separately, in due course. For any other clarification, the undersigned, being the Nodal Officer of this Department, may be contacted.

2. You are requested to nominate officers who will represent Goa State Innovation Councilin the discussion with DRPSC at Goa. Also, it is requested to share a background note on the subject for the consideration of the committee in soft copy through mail, to this Department, by 12.1.2021 positively.

Encl: As above

Yours faithfully

(Sachin Dhania)
Deputy Secretary
Tele. 2306 2972
e-mail: *sachin.d@gov.in*

15.2 Status Report:

Department of Science, Technology & Waste Management
Government of Goa

Meeting of the
Department related to Parliamentary Standing Committee
on Commerce to Goa

21.01.2021

Background Note & Presentations

Table of Contents

1. Goa State Council for Science & Technology (GSCST)

1.1 Background Note in English

The Goa State Council for Science & Technology (GSCST) was established in the year 1993, under the administrative control of the Department of Science & Technology Goa. The Hon'ble Chief Minister of Goa is the Chairman while the Mister of Science and Technology is the Vice Chairman of the Governing Body of the Council. The Chief Secretary, Government of Goa heads the Executive Committee.

Down the years, the State Council worked towards the achievement of its objectives by implementing projects in the following areas:

- Popularization of Science & Environment Awareness
- Water Resource management
- IPR facilitation and awareness
- Socio-economic Development
- Research, Design & Development
- Remote sensing & GIs activities

Patent Information Centre (PIC):
The PIC was established with support from TIFAC, DST, Government of India in 2004-05. Under its aegis, Feni was granted GI. It has also been instrumental in the organization of capacity building and awareness activities.

The Patent Information Centre (PIC) Goa was re-established by the State Government on 01.04.2019 with the financial support of Rs. 16.45 lakhs for the financial year 2019-20 from DST, GOI, New Delhi. It has conducted activities like Technical workshops, facilitation for filling IPs, establishment of IPR cells, IPR-based lectures, Webinars, advising the public on IPR matters, patent search and delivering talks on IPRs in Institutions etc.

Training programmes attended / conducted for PIC officials

- Annual Progress review meeting of PIC's held at Kodaikanal, Tamilnadu on 12-13th August, 2019.
- Southern region Patent Information Centre meeting cum training programme held on 22-23rd December, 2019 at Telangana, Hyderabad.
- One-week skill development training program on IPRs at RGNIIPRM, Nagpur from 20-25th May 2019.
- PIC officials are presently undergoing a one-year Post-graduate Diploma course in IPR under IGNOU, New Delhi.

Activities initiated under PIC

- Establishment of IPR Cells in Goa: The following IPR Cells have been established with the objective of establishing linkages between Research and Technical Institutes:

Sr.No	Institution	Co-Ordinator
01	Goa College of Engineering ,Farmagudi, Ponda, Goa-403401	Ms. Ashmita Kerkar Assistant Professor
02	Padre Conceicao College of Engineering, Verna-Goa. 403722	Prof. Joe Kurian Assistant Professor
03	Parvatibai Chowgule College of Arts and Science, P.O .Fatorda, Gogol-Margao, Goa 403602	Dr.(Smt.) Shaila R. Ghanti Vice-Principal
04	Goa University, Taleigao, Goa. 403206	Prof. Savita Kerkar Associate Professor
05	St. Xavier's College, Mapusa, Bardez-Goa. 403507	Prof. Nelson Lobo Convenor
06	Shree Rayeshwar Institute of Engineering and Information Technology, Shivshail, Shiroda, Ponda-Goa. 403103	Prof. Mrs. Poonam Sinai Kenkre Training and placement Officer(TPO)

Workshops/Seminars /webinars organised:

- Two-days' State level Workshop on "Intellectual Property Rights(IPRs)" on 27-28th October 2016 at Nalandha Hall, EDC House, Panaji with technical support from National Institute of Micro, Small and Medium Enterprises, Hyderabad.
- A State level IPR Workshop with technical support from the Technology Information Forecasting and Assessment Council (TIFAC), DST, New Delhi, on 26-27th September 2019 at Auditorium Hall, Goa University, Taleigao –Goa
- Two-days' State level Workshop on "Intellectual Property Rights(IPR)" from 27-28th October 2016 at Nalandha Hall, EDC House, Panaji with technical support from National Institute of Micro, Small& Medium Enterprise, Hyderabad.
- Awareness Program on Intellectual Property Rights in collaboration with and supported by Ministry of MSME, MSME Development Institute, Goa on 9th January, 2020 at Hotel Fidalgo, Panaji-Goa.
- A State Level workshop on IPR, Copyrights and Patenting in collaboration with Dhempe College of Arts and Science, on 25/01/2020 at Seminar Hall, Dhempe College of Arts and Science, Miramar, Goa.
- Awareness camps for faculty and research students on 11th and 12th February 2020 in the Institutions where IPR Cells have been established with Shri Ganesh Hingmare, renowned IPR faculty from Pune, as the Resource Person.

Online Webinars Conducted during ongoing COVID-19 pandemic:

- A webinar on "Intellectual Property Rights" by IPR Cell, St. Xavier's College, Mapusa in association with Goa State Council of Science and Technology (GSCST), Bardez, Goa on 22nd June 2020 .
- A webinar on "IP Protection through patents, copyright and trademarks" organized by Technology Information Forecasting and Assessment Council (TIFAC), Govt of India, New Delhi in association with Goa State Council of Science and Technology (GSCST), Bardez, Goa from 23-26th June, 2020.
- A webinar on "Introduction to Intellectual Property – patent process" organized by Rajiv Gandhi National Institute of Intellectual Property Management, Nagpur in association with GSCST.

Participation in State / National GI Exhibitions:

- Participated in online GI exhibition 'Geographical Indication Festival of India' from 9th to 21st January 2020 with Feni and Khola Chilli as GI produce from Goa.

Patents

Followings are the applications received for patent filings, and has been forwarded to TIFAC, DST, New Delhi after primary data search:

Sr.No	Title of the Invention & Applicant	Status
01	Web based autonomous bioreactor. Applicant: Snigdha Mayenkar, Professor, Goa University, Taleigao	Forwarded to TIFAC, DST, New Delhi.
02	Live-vacant hospital beds Applicant: Manav P. Kharat, Tivim, Bardez, Goa (Startups)	Forwarded to TIFAC, DST, New Delhi.
03	Guard tour system for monitoring performance of security guards with identity validation and real time data availability. Applicant: Gautamrao, Founder, Spirogyra Software Pvt. Ltd, Panaji-Goa	Forwarded to TIFAC, DST, New Delhi

Trademarks:

- A total of ten Trademark applications have been received including six from Avinash Singh Parmar, Founder, Ayur Blaze Healthcare Pvt. Ltd, Porvorim, Bardez-Goa. These six have been successfully filed with five being notified in the TM Register. The following are the details:

Sr.No	TM applied	Application No.	Date of Filling
01	Honey Blaze (Goods)	4556805	04/07/2020
02	Ayurmeh (Goods)	4556806	04/07/2020
03	Immuno Blaze (Goods)	4556807	04/07/2020
04	Healthy Living-Naturally (phrase for services)	4556808	04/07/2020
05	AyurBlaze (Goods)	4556872	04/09/2020
06	AyurBlaze (Services)	4556873	04/09/2020

Geographical Indication

GIs have been obtained for:

- Caju Feni (obtained in 2007 and renewed in 2017)
- Khola Chilli (obtained in 2019)

GI Applications have been successfully filed and defended (Registration awaited) for:

- Goan Khaje (Food item)
- Myndoli Banana (Fruits)
- Harmal Chilli (Agricultural produce)

In the year 2020 GI applications have been filed for the following

- Goa Cashew
- Goa Mankur (Mango)

Filing process is underway for the following:

- Bebinca (Goan sweet food item)
- B Taleigao/ Aggassium (Brinjal varieties)
- Kunbi saree
- Korgut rice
- Fish curry Rice
- Coconut feni
- Halsano
- Bhendi (Sat Shiro)

Proposed activities

- A Draft IPR Policy for the State of Goa is being formulated and will be soon placed before the State Government for discussion and approval. It is based on the National IPR Policy and those of other States.
- Procurement of Patent search database and conduct of specialized training for the concerned officials in the area of patent search.
- Commencement of Copyright Registration facility by 1st April, 2021.
- Formation of a linkage between all state-funded incubators and startups in order to promote and initiate filings of any IP generated.
- Documentation of GI and probable GIs items from the State.

1.2 Background Note in Hindi

पृष्ठभूमि टिप्पण

गोवा राज्य पेटेंट सूचना केंद्र

गोवा राज्य विज्ञान और प्रौद्योगिकी परिषद्

गोवा राज्य विज्ञान और प्रौद्योगिकी परिषद् (जीएससीएसटी) की स्थापना वर्ष 1993 में विज्ञान और प्रौद्योगिकी विभाग, गोवा के प्रशासनिक नियंत्रण के अधीन की गई थी। गोवा के माननीय मुख्यमंत्री इस परिषद् के शासी निकाय के अध्यक्ष हैं जबकि विज्ञान और प्रौद्योगिकी मंत्री इसके उपाध्यक्ष हैं। गोवा सरकार के मुख्य सचिव कार्यकारी समिति की अध्यक्षता करते हैं।

पिछले कई वर्षों से राज्य परिषद् निम्नलिखित क्षेत्रों में परियोजनाएं कार्यान्वित करके अपने उद्देश्यों की प्राप्ति की दिशा में कार्यरत है:

- विज्ञान और पर्यावरण जागरूकता का प्रचार
- जल संसाधन प्रबंधन
- आईपीआर संबंधी सहायता और जागरूकता
- सामाजिक-आर्थिक विकास
- अनुसंधान, डिजाइन और विकास
- रिमोट सेंसिंग और जीआई संबंधी क्रियाकलाप

पेटेंट सूचना केंद्र (पीआईसी):

टीआईएफएसी, डीएसटी, भारत सरकार की सहायता से वर्ष 2004-05 में पीआईसी की स्थापना की गई थी। इसके तत्वावधान में फेनी को जीआई प्रदान किया गया था। यह क्षमता निर्माण और जागरूकता संबंधी क्रियाकलापों के आयोजन में सहायता प्रदान करता रहा है।

वित्तीय वर्ष 2019-20 के लिए डीएसटी, जीओआई, नई दिल्ली से 16.45 लाख रुपए की वित्तीय सहायता के साथ राज्य सरकार द्वारा दिनांक 01.04.2019 को पेटेंट सूचना केंद्र (पीआईसी) की पुन: स्थापना की गई थी। इसने तकनीकी कार्यशाला, आईपी दायर करने में सहायता, आईपीआर प्रकोष्ठ की स्थापना, आईपीआर आधारित व्याख्यान, वेबीनार, आईपीआर संबंधी मामलों में लोगों को सलाह देना, पेटेंट खोज और संस्थाओं में आईपीआर संबंधी चर्चाओं में भागीदारी आदि जैसे क्रियाकलापों का आयोजन किया है।

पीआईसी अधिकारियों द्वारा प्रशिक्षण कार्यक्रमों में भागीदारी/ अधिकारियों के लिए प्रशिक्षण कार्यक्रमों का आयोजन

- 12-13 अगस्त, 2019 को कोडइकनाल, तमिलनाडु में पीआईसी की वार्षिक प्रगति संबंधी समीक्षा बैठक।

- 22-23 दिसंबर, 2019 को तेलंगाना, हैदराबाद में दक्षिणी क्षेत्र के पेटेंट सूचना केंद्र की बैठक-सह-प्रशिक्षण कार्यक्रम।
- 20-25 मई, 2019 को आरजीएनआईआईपीआरएम, नागपुर में आईपीआर के संबंध में एक सप्ताह का कौशल विकास प्रशिक्षण कार्यक्रम ।
- वर्तमान में पीआईसी अधिकारी इग्नू, नई दिल्ली में एक वर्षीय स्नातकोत्तर डिप्लोमा कोर्स कर रहे हैं।

पीआईसी के तहत शुरु किए गए क्रियाकलाप

- **<u>गोवा में आईपीआर प्रकोष्ठ की स्थापना</u>**: अनुसंधान और तकनीकी संस्थानों के बीच संपर्क स्थापित करने के उद्देश्य के साथ निम्नलिखित आईपीआर प्रकोष्ठों की स्थापना की गई है:

क्र.सं.	**संस्थान**	**सह-संयोजक**
01	गोवा कॉलेज ऑफ इंजीनियरिंग, फार्मागुड़ी, पोंडा-गोवा-403401	सुश्री अश्मिता केरकर, असिस्टेंट प्रोफेसर
02	पेड्रे कोंसीकाओ कॉलेज ऑफ इंजीनियरिंग, एग्नेलगांव, वेर्ना-गोवा 403722	प्रो. जो कुरियन असिस्टेंट प्रोफेसर
03	पार्वतीबाई चौगुले कॉलेज ऑफ आर्ट्स एंड साइंस, पो.ऑ. फटोर्डा, गोगोल-मार्गाओ, गोवा 403602	डॉ. (श्रीमती) शैला आर. घांटी उप प्रधानाचार्या
04	गोवा यूनीवर्सिटी, तालेगांव, गोवा. 403206	प्रो. सविता केरकर एसोसिएट प्रोफेसर
05	सेंट जेवियर्स कॉलेज, मापुसा, बार्डेज-गोवा 403507	प्रो. नेल्सन लोबो संयोजक
06	श्री रायेश्वर इंस्टीट्यूट ऑफ इंजीनियरिंग एंड इन्फॉर्मेशन टैक्नोलॉजी, शिवशैल, शिरोडा, पोंडा-गोवा. 403103	प्रो. श्रीमती पूनम सिनाई केंक्रे प्रशिक्षण और प्लेसमेंट अधिकारी (टीपीओ)

आयोजित की गई कार्यशालाएं/सेमीनार/वेबीनार:

1) 27-28 अक्टूबर, 2016 को नालंदा हॉल, ईडीसी हाउस, पणजी में "बौद्धिक संपदा अधिकर (आईपीआर)" संबंधी राज्य स्तरीय दो दिवसीय कार्यशाला जिसमें राष्ट्रीय सूक्ष्म, लघु और मध्यम उद्यम संस्थान, हैदराबाद ने तकनीकी सहायता प्रदान की थी।
2) प्रौद्योगिकी सूचना पूर्वानुमान और मूल्यांकन परिषद् (टीआईएफएसी), डीएसटी, नई दिल्ली की तकनीकी सहायता से 26-27 सितंबर, 2019 को ऑडिटोरियम हॉल, गोवा विश्वविद्यालय, तालेगांव-गोवा में राज्य स्तरीय आईपीआर कार्यशाला।
3) राष्ट्रीय सूक्ष्म, लघु और मध्यम उद्यम संस्थान, हैदराबाद की तकनीकी सहायता से 27-28 अक्टूबर, 2016 को नालंदा हॉल, ईडीसी हाउस, पणजी में "बौद्धिक संपदा अधिकर (आईपीआर)" संबंधी राज्य स्तरीय दो दिवसीय कार्यशाला।
4) एमएसएमई मंत्रालय, एमएसएमई विकास संस्थान, गोवा के सहयोग और सहायता से 9 जनवरी, 2020 को होटल फिडाल्गो, पणजी-गोवा में बौद्धिक संपदा अधिकार संबंधी जागरूकता कार्यक्रम।
5) धेंपे कॉलेज ऑफ आर्ट्स एंड साइंस के सहयोग से 25.01.2020 को सेमीनार हॉल, धेंपे कॉलेज ऑफ आर्ट्स एंड साइंस, मीरामार, गोवा में आईपीआर, कॉपीराइट और पेटेंटिंग संबंधी राज्य स्तरीय कार्यशाला।
6) जिन संस्थाओं में आईपीआर प्रकोष्ठ स्थापित किए गए हैं वहां 11 और 12 फरवरी, 2020 को फैकल्टी और अनुसंधान करने वाले विद्यार्थियों के लिए जागरूकता शिविर का आयोजन, जिसमें पुणे के विख्यात आईपीआर फैकल्टी श्री गणेश हिंगमारे ने विशेषज्ञ के रूप में भाग लिया।

कोविड-19 **महामारी के दौरान आयोजित ऑनलाइन वेबीनार**

i) गोवा राज्य विज्ञान और प्रौद्योगिकी परिषद् (जीएससीएसटी), बारडेज, गोवा के साथ मिलकर आईपीआर प्रकोष्ठ, सेंट जेवियर कॉलेज, मापुसा द्वारा 22 जून, 2020 को '**बौद्धिक संपदा अधिकार**' संबंधी वेबीनार।

ii) गोवा राज्य विज्ञान और प्रौद्योगिकी परिषद् (जीएससीएसटी), बारडेज, गोवा के साथ मिलकर प्रौद्योगिकी सूचना पूर्वानुमान और मूल्यांकन परिषद् (टीआईएफएसी) द्वारा 23-26 जून, 2020 को '**पेटेंट, कॉपीराइट और व्यापार चिह्न के जरिए आईपी संरक्षण**' संबंधी वेबीनार का आयोजन।

iii) जीएससीएसटी के साथ मिलकर राजीव गांधी राष्ट्रीय बौद्धिक संपदा प्रबंधन संस्थान, नागपुर द्वारा '**बौद्धिक संपदा- पेटेंट प्रक्रिया का परिचय**' संबंधी वेबीनार का आयोजन।

राज्य/राष्ट्रीय जीआई प्रदर्शनियों में भागीदारी:

9 से 21 जनवरी, 2020 तक ऑनलाइन जीआई प्रदर्शनी '**भारतीय भौगोलिक संकेतक महोत्सव**' में भाग लिया जिसमें **फेनी** और **खोला चिली** गोवा से जीआई उत्पाद के रूप में शामिल थे।

पेटेंट

पेटेंट दायर करने के लिए निम्नलिखित आवेदन प्राप्त हुए तथा आंकड़ों की प्रारंभिक जांच के बाद टीआईएफएसी, डीएसटी, नई दिल्ली को अग्रेषित किया गया।

क्र.सं.	**आविष्कार और आवेदक का नाम**	**स्थिति**
01.	वेब आधारित स्वतंत्र जैवरिएक्टर **आवेदक:** स्निग्धा मयेंकर, प्रोफेसर, गोवा विश्वविद्यालय, तालेगांव	टीआईएफएसी, डीएसटी, नई दिल्ली को अग्रेषित
02.	लाइव-वेकेंट हॉस्पिटल बेड्स **आवेदक**: मानव पी. खराट, तिविम, बारडेज, गोवा (स्टार्टअप्स)	टीआईएफएसी, डीएसटी, नई दिल्ली को अग्रेषित
03.	पहचान प्रमाणन और आंकड़ों की वास्तविक समय आधारित उपलब्धता के साथ सुरक्षागार्ड्स के कार्यनिष्पादन की निगरानी के लिए गार्ड टूर सिस्टम **आवेदक:** गौतमराव, संस्थापक, स्पिरोगिरा सॉफ्टवेयर प्रा.लि., पणजी, गोवा	टीआईएफएसी, डीएसटी, नई दिल्ली को अग्रेषित

<u>व्यापार चिह्न</u>:

कुल दस व्यापार चिह्न आवेदन प्राप्त हुए हैं जिनमें से छः आवेदन अविनाश सिंह, परमार, संस्थापक, आयुर ब्लेज हेल्थकेयर प्रा.लि., पोर्वोरिम, बारडेज-गोवा से प्राप्त हुए हैं। इन छः आवेदनों का सफलतापूर्वक दायर किया गया है जिनमें से पांच को टीएम रजिस्टर में अधिसूचित किया गया है। इनका ब्यौरा निम्नलिखित है:

क्र.सं.	**आवेदन किए गए व्यापार चिह्न (टीएम)**	**आवेदन सं.**	**दायर करने की तारीख**
01	हनी ब्लेज (वस्तुएं)	4556805	04/07/2020
02	आयुर्मेह (वस्तुएं)	4556806	04/07/2020
03	इम्यूनो मेज (वस्तुएं)	4556807	04/07/2020
04	हेल्थी लिविंग-नैचुरली (सेवा के लिए वाक्यांश)	4556808	04/07/2020
05	आयुरब्लेज (वस्तुएं)	4556872	04/09/2020
06	आयुरब्लेज –सेवाएं	4556873	04/09/2020

<u>भौगोलिक संकेतक</u>

निम्नलिखित के लिए जीआई प्राप्त किया गया:

1. काजू फेनी **(**वर्ष **2007** में प्राप्त किया गया तथा वर्ष **2017** में नवीकरण कराया गया**)**
2. खोला चिली (वर्ष **2019** में प्राप्त किया गया**)**

जीआई आवेदन सफलतापूर्वक दायर किए गए तथा पक्ष रखा गया (पंजीकरण प्रतीक्षित है) :

1. गोवा का खाजे **(**खाने का सामान**)**
2. मायंडोली केला **(**फल**)**
3. हरमल चिली **(**कृषि उत्पाद**)**

वर्ष **2020** में दायर किए गए आवेदन निम्नलिखित हैं:

1. <u>गोवा काजू</u>
2. <u>गोवा मंकुर (आम)</u>

<u>निम्नलिखित के लिए फाइलिंग प्रक्रिया जारी है:</u>

क. बेबिंका (गोवा की मिठाई)
ख. तालेगांव/अग्गसियम (बैंगन का प्रकार)
ग. कुनबी साड़ी

घ. कोरगुट चावल

ड. फिश करी चावल

च. नारियल फेनी

छ. हलसानो

ज. भेंडी (सत शिरो)

<u>प्रस्तावित क्रियाकलाप</u>

- गोवा राज्य के लिए मसौदा आईपीआर नीति तैयार की जा रही है तथा इसे चर्चा तथा अनुमोदन हेतु शीघ्र ही राज्य सरकार के समक्ष रखा जाएगा। यह राष्ट्रीय आईपीआर नीति तथा अन्य राज्यों की आईपीआर नीति पर आधारित है।
- पेटेंट सर्च डाटाबेस की अधिप्राप्ति और पेटेंट सर्च के क्षेत्र में संबंधित अधिकारियों के लिए विशेष प्रशिक्षण का आयोजन।
- 1 अप्रैल**, 2021** से कॉपीराइट पंजीकरण सुविधा की शुरुआत।
- आईपी फाइलिंग को बढ़ावा देने तथा किसी भी सृजित आईपी की फाइलिंग शुरु करने के लिए राज्य द्वारा वित्तपोषित सभी इन्क्यूबेटर्स और स्टार्टअप्स के बीच संपर्क स्थापित करना।
- राज्यों के जीआई तथा संभावित जीआई मदों का प्रलेखीकरण।

1.3 Presentation

Goa State Council for Science & Technology

Goa State Patent Information Centre

Date of Re-establishment -1st April, 2019

Registrations of IPRs and its Promotion

Presented by
Prof. Pradeep V. Morajkar
Member Secretary, GSCST

Contact details

State Patent Information centre
Goa State council for Science & Technology
Saligao, bardez, goa
403512
Email: pic.gscst@gmail.com
9834553931

State PIC mandate is to work on each of the following IPR

- **Patents**
- **Trademark**
- **Copyright**
- **Geographical Indication**
- **Industrial design**
- **Registration of plant varieties**

The role of PIC includes organising awareness and capacity building activities for all stake holders and act as an facilitator for filling each IPR generated within the State.

Activities under PIC

- ❑ Awareness programs on IPR involving all stake holders such as MSME , research scholars and faculties etc.
- ❑ Capacity building programs for the officials and stake holders
- ❑ Facilitation of Patents filling
- ❑ Filling of Trademarks
- ❑ Registration of Geographical Indication(S)
- ❑ Establishment of IPR cells at Goa University and other research institutes

Workshops/Seminars /webinars organised

Sr. No	Event	No of participants
01	Two days State level workshop on IPR in association with TIFAC, DST, New Delhi for faculties and researchers	60
02	An awareness program on IPR in association with MSME , Goa for MSME enterprises	50
03	State Level workshop on Copyrights and Patenting at Dhempe College of Arts & Science.	55
04	IPR awareness camps for Faculties and Research scholars jointly with the IPR cells established in Goa.	70
05	A webinar on "**Intellectual Property Rights**" organized by IPR Cell- St. Xavier's College, Mapusa	40
06	A webinar on "**IP Protection through Patents, Copyright and Trademarks**" jointly with TIFAC	70
07	A webinar on "**Introduction to Intellectual Property" Patent process,organised jointly with RGNIIPM, Nagpur**	80

Title of the Invention received and Applicant

Title:- 1) **WEB BASED AUTONOMOUS BIOREACTOR**
Applicant:- Snigdha Mayenkar, Professor, Goa University, Taleigao
Forwarded to TIFAC, DST, New Delhi.

Title:-2) LIVE-VACANT HOSPITAL BEDS
Applicant: Manav P. Kharat, Tivim, Bardez, Goa (Startups)
Forwarded to TIFAC, DST, New Delhi.

Title: 3) **GUARD TOUR SYSTEM FOR MONITORING PERFORMANCE OF SECURITY GUARDS WITH IDENTITY VALIDATION AND REAL TIME DATA AVAILABILITY**.
Applicant: Gautam Rao, Founder, Spirogyra Software Pvt. Ltd, Panaji-Goa
Forwarded to TIFAC, DST, New Delhi

The TIFAC workout the patentability for first two applications, first being from government funded organization and second being startups as per their norms and seek more details in the prescribed format to consider the same for filing.

Third one being private, TIFAC suggested us to provide him the details of private patents attorneys/agents.

TRADEMARK

Sr.No	TM applied	Application No.	Date of Filling
01	Honey Blaze (goods)	4556805	04/07/2020
02	Ayurmeh (goods)	4556806	04/07/2020
03	Immuno Blaze (goods)	4556807	04/07/2020
04	Healthy Living-Naturally (phrase for services)	4556808	04/07/2020
05	Ayur Blaze (goods)	4556872	04/09/2020
06	Ayur Blaze-services	4556873	04/09/2020

First five applications are successfully notified in the Trademark Journal.

Registration of Plant Varieties and Copyright Registration

State PIC is working in closed association with Bio-diversity Management Committees across the State and will support registration of Plant varieties and plant genome with the concern organization of the central government.

PIC is also working to built up in house expertise for filling Copyright applications in case of Trademarks and Geographical indication (s)

GEOGRAPHICAL INDICATIONS

GI-Khola Chilli(registered)

GI-HARMAL CHILLI(Notified)

GI-GOAN KHAJE(Notified)

GI-MYNDOLI BANANA(Notified)

GEOGRAPHICAL INDICATIONS

GI-Goa Cashew (Filed)

GI-Goa Mankur(Filed)

GI-Bebinca(In progress)

GI-Kunbi Saree(In progress)

Probable GI under process for filing

- Khatkhatem
- Korgut Rice
- Taleigaon/ Aggassium (Brinjal varieties)
- Coconut Jaggery
- Halsano/Cowpea
- Bhendi(seven shiro)
- Fish Curry Rice
- Dodol
- Coconut feni

As GI promotional activities participated in GEOGRAPHICAL INDICATIONS FESTIVAL OF INDIA(GIFI)

- Registration of Authorised Users

	Activities of PIC at Glance	
01	Number of patents filing requests received	03
02	Number of patents forwarded and examined by TIFAC	03
03	No. of patents application filed including of IPR cell of Goa University	03
04	Number of patents granted	Nil
05	Trademark application received and filed	10/06
06	Trademark application notified/Under process	05/01
07	No of GI filed	08
08.	No. of GI Registered/notified	01/03
09	No. of GI in process	08
10	IP awareness programme organised	08
11	Online Webinar/Awareness program conducted	03
12	Training on IPR	02
13	No. of IP cells established	06

PATENT PROMOTIONAL ACTIVITIES

As part of promotional patent filing, Govt. and aided research and technical institutes were linked to TIFAC through State Patent Information Centre, so as to facilitate filing of each IP generated in these Institutes through established IPR cells.

1. Goa College of Engineering , Farmagudi, Ponda-Goa-403401

2. Padre Conceicao College of Engineering, AgnelGanv, Verna-Goa. 403722

3. Parvatibai Chowgule College of Arts and Science, P.O .Fatorda, Gogol-Margao, Goa 403602

4. Goa University, Taleigaon-Goa. 403206

5. St. Xavier's College, Mapusa, Bardez-Goa. 403507

6. Shree Rayeshwar Institute of Engineering and Information Technology, Shivshail, Shiroda, Ponda-Goa. 403103

PROPOSED ACTIVITIES OF PIC

- Enhancing of the PIC activities by strengthening of IPR cells
- Procurement of Patent search database and provide specialized training to the concerned officials for patent search.
- Facilities for copyright registration by 1st April, 2021
- Form a link with all State funded incubators and startups for promoting and initiating filings of any IP generated.
- Promote Students Project Programs for giving an opportunity to young talent for inventing novelty, focusing on engineering and technical students.
- State level exhibitions for promoting various GI produce for its branding and thus enhancing its marketing.
- Documentation of GI and probable GIs items of the State, as coffee table book.
- To give emphasis on value added products of various identified GI produce so as to encourage for developing few new technologies for promoting rural agro based industries .
- Promote Trademark, by providing some concessions in registration fees through Government support.
- To work in collaborations with State biodiversity boards and BMCs working under it for farmers and new plants registrations
- Advance training for PIC officials to upgrade with the requirement of fulfilling the PIC mandate more efficiently.
- Any other work as assigned by the PFC, DST, GoI, New Delhi and State Government.

Vision 2025
One patent –one Industry

- Establishment of full fledge Patent filing system by identifying young talent within the State and supporting them technically to be a Patent agents and Patent attorney, so as to facilitate to achieve the target of 50 patents by 2025,through start-ups and incubators.
- Linking with all Research and Technical institutes within State Institutes and easy System and support for Technology transfer.
- Filing of all possible GI of State produce and work towards its branding.
- In house Facilities for filing Copyrights.
- Strengthening of Patent centre through recruitment of minimum manpower sanctioned and procurement of search database, and advanced training for the PIC officials

2. Goa State Innovation Council (GSInC)

2.1 Background Note in English

The Goa State Innovation Council is established by the Department of Science, Technology & Waste Management, Government of Goa. Goa State Innovation Council engages in organizing various programs and events to spread the awareness about innovation and entrepreneurship among the people of Goa, handhold budding start-ups and innovators in scaling their business ideas and identifying potential ideas and innovations through competitions.

Objectives of the Goa State Innovation Council are:

- Drive the innovation agenda in the state and harness the core competencies, local talent, resources and capabilities to create new opportunities.
- Support the State Government to promote innovation in the State.
- Encourage young talent in local universities, colleges, medium and small scale industries (MSME) and R&D institutes.
- Map opportunities for innovation in the State. Identify and reward talent in innovation and disseminate success stories.
- Organise seminars, lectures, workshops on innovation.
- Create the state innovation portal to educate and drive awareness on innovation.
- Provide input into the Innovation Roadmap 2017-2020 for the State.

The Council is now actively involved in creating an eco-system on Innovation in the State and was reconstituted on 18/10/2016 under the chairmanship of Shri. Jose Manuel Noronha, Chairman, Goa Public Service Commission, and has launched its website at the hands of the Former Hon'ble Chief Minister of Goa, Shri Manohar Parrikar on 05-07-2018.

Initiatives of Goa State Innovation Council

Virtual Innovation Register - The Virtual Innovation Register (VIR) is a unique initiative by GSInC to harvest potential ideas and innovation without any hassle or fuss. In step with the ethos of Digital India, the VIR is an online platform where innovators and entrepreneurs can register their ideas virtually and source the required support to achieve the expected results. VIR will also function as an innovation souk where young innovators will display prototypes and directly talk to prospective buyers.

Innovations and ideas can be registered under VIR in two categories; New Ideas and Start-ups. While the former allows individuals to submit their innovation and ideas, the latter allows already functioning start-ups to register with VIR and enjoy a host of benefits.

Benefits of Registering New Ideas Under VIR:

- Intellectual Property Rights support
- Support for commercialisation
- Pitching to prospective buyers

Benefits of Registering Your Start-up Under VIR:

- Collaboration with mentors and experts
- Support for raising Funds
- Access to resources (Incubation, Co-Founders, etc.)

Schemes Under Virtual Innovation Register

- Provisional Patent Scheme (Attached Annexure I)
    - The scheme aims to promote awareness and adoption of Intellectual Property Rights amongst the students and innovators. Scheme is inclined to nurture and mentor innovative and emerging technologies among Students and assist them in protecting and commercialize it by providing them access to high quality IP services and resources.
    - An applicant under this Scheme shall be eligible for a support of upto Rs. 10,000 for filing provisional patent application through the aforesaid patent agents/ firms.

- Prototyping Grant Scheme (Attached Annexure II)
    - Scheme to provide Grant for prototyping technology-based innovative projects/ideas under the Virtual Innovation Register (VIR) to make it affordable for Students, Startups, Innovators, Research Faculty& Entrepreneurs who require the necessary support in converting Ideas into marketable products.
    - An applicant under this Scheme shall be eligible for a grant of up to Rs. 20,000/- per project.

VIR Status Report
Startups Registered: 48
New Ideas Registered: 237

Provisional Patents Status	
Applications received	148
Applications rejected	73
Applications under process	69
Provisional Patents Granted	6

Prototyping Grants Status	
Applications received	33
Applications rejected	5
Applications under process	9
Prototyping Granted	19

Goa's Young Innovator Award (Annexure III)

Goa's Young Innovators Award helps encourage students across schools and education boards to present their ideas on a common platform, giving each student an equal opportunity to demonstrate their innovation.

The Competition was held in two categories:

Category 1 : For students from Standard 8th to 10th

Category 2 : For students from standard 5th to 7th.

Status Report

Over 200 students from various schools across North Goa & South Goa submitted their ideas. The prize awards in each of two categories are:

First prize : Rs 20,000/-
Second prize : Rs 10,000/-
Third prize : Rs 5,000/-.

Final Year Innovative Student Project Competition for Bachelor of Engineering

Engineering undergraduates in the state have the unique opportunity to showcase their final year projects to the world and stand a chance to win significant recognition and cash prizes through the Student Project Competition.

The initiative is conceptualized to encourage final year engineering students to brew innovation with their subject knowledge and come up with practical solutions to social/environmental problems.

The Student Project Competition is built on the model of:

- Supporting innovative and solutions-oriented thinking
- Strengthening the capacity of coalitions, networks, and partnerships; and supporting the implementation of innovative projects (ideas into action)
- Competition is open for students of colleges based in Goa

Status Report

Over 150 students projects submitted their projects. The prize awards are:

First prize : Rs 20,000/-
Second prize : Rs 10,000/-
Third prize : Rs 5,000/-. (5 consolation prizes)

Goa Waste Management Hackathon (Annexure IV)

Goa Waste Management Hackathon 2020 is an initiative of Government of Goa to provide students a platform to solve challenges faced in Solid Waste management and disposal in Goa and thus incubate the culture of product/process innovation with problem solving mindset. Goa State Innovation Council conducted the Hackathon on 18th & 19th Feb 2020 at Don Bosco College of Engineering, Fatorda.

Challenges faced in Solid Waste Management and disposal were:

- Segregation of Dry Waste & reduction/ elimination of moisture from RDF(Refuse Derived Fuel)
- Removal of Solid Waste from Surface water bodies for eg. Rivers, Lakes, Ponds.
- Disposal of tubelights, LED's and CFL bulbs in scientific manner.
- Disposal of Sanitary Pads and Diapers in scientific manner.

A total of 19 student projects were applied and attended the finals. The submitted projects were evaluate on basis of

- Problem identification and ideation
- Innovation & Design
- Sustainability

Think Design Prototype – Prototyping Lab (Annexure V)

The Prototyping Lab is equipped with Power & essential tools including Laser Cutting Machine & 3D Printing machines to build prototypes. The Lab is access by Startups and students from schools & colleges. We also conduct training workshops on STEM Education such as Robotics, IoT, 3D Printing, Laser Cutting, Drone making, etc for the Schools and Colleges in the State of Goa.

List of Equipment are:

i. Laser Cutting /Engraving Machine: 9060-80W Laser Cutting /Engraving Machine

ii. 3D Printer: Flashforge Adventurer 3 and Ender Pro 3

iii. Power Tools: Professional Grinders, Circular Saws, Smart Drill Kits, etc

iv. Essential Tools: Junior Hacksaw, Screw Driver Set, Micro Chisel Set, Plier Set, etc

Risk Capital Funding Support

The objective of the initiative is to upskill the Startups and Innovators with the skills and knowledge about startup fundraising and Venture Capital. Also support in raising funds. Goa State Innovation Council conducted a Venture Capital Program on 18th Dec 2019. The objective of the session is to upskill the Startups and Innovators with the skills and knowledge about start-up fundraising and Venture Capital.

Faculty Development Programs

The Faculty Development Programme (FDP) is aimed at training faculties in entrepreneurship development to turn them into resource persons for guiding and mentoring young science and technology students on the path of innovation. These sessions are conducted at various Science and Engineering colleges, Polytechnics, Industrial Training Centres, etc., to train the faculty members and equip them with the necessary skills to propel Goan youth on the path to entrepreneurship.

The objective of the program was as follows:

1. Training the teachers to be well equipped with skills to develop innovative and creative thinking approach among students.
2. Provide an exposure to the current scenario of innovation in the state, so that they act as resource persons in guiding and motivating young Science & Technology persons to consider Startup ecosystem as a career possibility.
3. Provide details on the policies present and activities taken up by the Government of Goa in promoting innovation and creativity.

Workshops on Innovation in Schools & Colleges

- Sensitisation Workshop on innovation & Creativity are conducted to promote STEM Education amongst young students.

  Goa State Innovation Council initiates promotion of STEM (Science, Technology, Engineering and Mathematics) education in primary and secondary schools. The core idea is to strengthen the provision of quality learning experiences to students through support to schools on whole-school curriculum planning and collaboration with relevant organizations like Incubators and Tinkering labs. To achieve this, Goa State Innovation Council takes the initiative of approaching government-run and private schools across Goa to help school authorities envision and embrace a technology-driven future.

- Bootcamp in innovation are conducted to promote and create awareness about innovation amongst young students from Colleges.

  Bootcamps on innovation focus on three key aspects - technology, innovation and entrepreneurship. Specifically designed for the college students in Goa, these bootcamps encourage the participants to tap into their creativity and use it to devise scalable business ideas that innovatively bridge various gaps in the market or solve community issues.

- Women Centric Workshop (WCW)

  The aim of this initiative is to harness the creativity and ideation power of women and bring them into the mainstream through the power of innovation. Mentorship support, hands-on workshops, informative seminars, etc., form a part of these workshops that teach women to scale their ideas into independent enterprises and grow them successfully and independently. The participants are also made aware of various government schemes and funding opportunities to help them in their endeavours further.

- Orientation Program on Innovation & Startups

  Program is to train and guide the teachers on innovation and creativity through a training session and equipping with skills and knowledge that are essential for inculcating innovative ideas in students.

- STEM – Think Design Prototyping Workshops

  The Objective of the workshop is to develop and materialize ideas that are formed in creative minds. We provide access to various prototyping equipment from the Prototyping Lab to individuals with a purpose to convert the Ideas into designs, and their designs into products.

- Industry Institute Interaction Panel Discussion on Demystifying the impact of digitization on Industry

- IPR Awareness programs on Prior Art Search, Patentability, Provisional Patents & IPO.

Sr No	Dates	IPR Event Details	Total Participants
1	13.10.2018	IPR session on for New Ideas registered under VIR	37
2	24.9.2019	IPR Training session on Patent Search for New Ideas registered under VIR	101
3	25.9.2019	IPR Awareness session for Startups, Students & Faculty	45
4	25.9.2019	IPR Awareness session for School students	175
5	31.1.2019	Importance of Intellectual Property Rights	40
6	26.9.2020	Intellectual Property Rights – Know your Patentability Potential	246
7	20.11.2020	Intellectual Property Rights – Faculty Development Program	35
8	02.12.2020	Intellectual Property Rights – Awareness Program	246
9	10.12.2020	Intellectual Property Rights – Patent Search	70
10	17.12.2020	Intellectual Property Rights – Patent Filing and Prosecution - India & Overseas	150

2.2 Background Note in Hindi

गोवा राज्य नवप्रयोग परिषद का पृष्ठभूमि टिप्पण

गोवा राज्य नवप्रयोग परिषद की स्थापना विज्ञान, प्रौद्योगिकी और अपशिष्ट प्रबंधन विभाग, गोवा सरकार द्वारा की गई है। गोवा राज्य नवप्रयोग परिषद गोवा के लोगों के बीच नवप्रयोग एवं उद्यमिता के बारे में जागरूक फैलाने के लिए विभिन्न कार्यक्रम का आयोजन करती है, अपने व्यवसाय को आगे बढ़ाने में उभरते हुए स्टार्टअप्स और इनोवेटर्स को सहायता प्रदान करती है और प्रतिस्पधाओं के द्वारा संभावित नए विचारों और नवप्रयोगों को चिन्हित करती है।

गोवा राज्य नवप्रयोग परिषद के उद्देश्य:

राज्य में नवप्रयोग को प्रेरित करना तथा मूल दक्षताओं, स्थानीय प्रतिभा, संसाधनों और नए अवसर पैदा करने की क्षमता को उपयोग में लाना।

- राज्य में नवप्रयोग को बढ़ावा देने के लिए राज्य सरकार को सहयोग करना।
- स्थानीय विश्वविद्यालयों, कॉलेजों, मध्यम तथा लघु उद्योगों (एमएसएमई) और आरएंडडी संस्थानों में युवा प्रतिभाओं को प्रोत्साहित करना।
- राज्य में नवप्रयोग के अवसरों का निर्धारण करना, नवप्रयोग में प्रतिभा को चिन्हित करना तथा पुरस्कृत करना और सफलता की कहानियों का प्रसार करना।
- नवप्रयोग से संबंधित सेमिनार, भाषण और कार्यशालाओं का आयोजन करना।
- नवप्रयोग से संबंधित शिक्षा और जागरूकता फैलाने के लिए राज्य नवप्रयोग पोर्टल बनाना।
- राज्य के लिए नवप्रयोग रोडमैप 2017-2020 को इनपुट प्रदान करना।

परिषद अब सक्रिय रूप से राज्य में नवप्रयोग से संबंधित एक परिवेश विकसित कर रहा है और दिनांक 18/10/2016 को गोवा लोक सेवा आयोग के अध्यक्ष श्री जोश मैनुअल नोरोन्हा की अध्यक्षता में इसका पुर्नगठन किया गया और गोवा के माननीय पूर्वमुख्यमंत्री श्री मनोहर पारिकर द्वारा दिनांक 5.7.2018 को इसकी वेबसाइट का लोकार्पण किया गया।

गोवा राज्य नवप्रयोग परिषद की पहल

1. **वर्चुअल नवप्रयोग रजिस्टर**

वर्चुअल नवप्रयोग रजिस्टर (वीआईआर) जीएसआईएनसी की एक अद्वितीय पहल है जो संभावित नए विचारों और नवप्रयोग का बिना किसी परेशानी या कठिनाई के उपयोग करने के लिए की गई है। डिजिटल इंडिया के अनुरुप वीआईआर एक ऑनलाइन प्लेटफॉर्म है जहां इनोवेटर और उद्यमी अपने विचारों को वास्तव में पंजीकृत कर सकते हैं और अपेक्षित परिणाम पाने के लिए आवश्यक सहायता भी प्राप्त कर सकते हैं। वीआईआर एक नवप्रयोग बाजार की तरह कार्य करेगा जहां युवा इनोवेटर प्रोटोटाइप प्रदर्शित करेंगे और सीधे संभावित खरीददारों से बात करेंगे।

नवप्रयोगों और विचारों को वीआईआर के अधीन दो श्रेणियों में पंजीकृत किया जा सकता है - नए विचार और स्टार्टअप्स। जबकि पहला व्यक्तियों को अपने नपप्रयोग और विचारों को प्रस्तुत करने की अनुमति देता है, वहीं दूसरा पहले से ही कार्य कर रहे स्टार्टअप्स को वीआईआर में पंजीकृत करने की अनुमति देता है और बहुत सारे लाभ प्रदान करता है।

नए विचारों को वीआईआर के अधीन पंजीकृत करने के लाभ-

बौद्धिक संपदा अधिकार सहायता

- व्यावसायीकरण के लिए सहायता
- संभावित खरीदारों से संपर्क

अपने स्टार्टअप को वीआईआर के अधीन पंजीकृत करने के लाभ-

- मार्गदर्शकों और विशेषज्ञों के साथ सहयोग
- फंड जुटाने में सहायता
- संसाधनों तक पहुंच (इनक्यूबेशन, सह-संस्थापक आदि)

वर्चुअल नव-प्रयोग रजिस्टर के तहत योजनाएं-

अनंतिम पेटेंट योजना- (संलग्न अनुबंध-1)
योजना का उद्देश्य छात्रों और इनोवेटर्स के बीच बौद्धिक संपदा अधिकारों के संबंध में जागरूकता बढ़ाना और उसे अपनाने को प्रोत्साहित करना है। यह योजना छात्रों के बीच नवप्रयोग और उभरती प्रौद्योगिकियों के पोषण और संरक्षण की ओर प्रवृत्त है और उन्हें उच्च गुणवत्ता वाली आईपी सेवाओं और संसाधनों तक पहुंच प्रदान करके इसका व्यावसायीकरण करती है।

इस योजना के तहत आवेदक, उक्त पेटेंट एजेंट/फर्म के माध्यम से अनंतिम पेटेंट आवेदन दायर करने के लिए 10,000 रु. तक की सहायता के लिए पात्र होगा।

- **प्रोटोटाइप अनुदान योजना** (संलग्न अनुबंध-II)
  यह योजना की वीआईआर के तहत प्रोटोटाइपिंग प्रौद्योगिकी आधारित नवप्रयोग परियोजनाओं/विचारों के लिए अनुदान प्रदान करती है और इसे ऐसे छात्रों, स्टार्टअप, इनोवेटर्स, अनुसंधान संकाय और उद्यमियों के लिए वहनीय बनाती है जिन्हें नए विचारों को बाजर-योग्य उत्पादों में बदलने के लिए आवश्यक सहायता की आवश्यकता होती है।

  इस योजना के तहत आवेदक प्रति परियोजना 20,000/- रु. तक के अनुदान का पात्र होगा।

वीआईआर स्थिति रिपोर्ट

पंजीकृत स्टार्टअप्स: 48

पंजीकृत नए विचार: 237

अनंतिम पेटेंट स्थिति
प्राप्त आवेदन
रद्द किए गए आवेदन
प्रक्रियाधीन आवेदन
प्रदान किए गए अनंतिम पेटेंट

प्रोटोटाइपिंग अनुदान स्थिति
प्राप्त आवेदन
रद्द किए गए आवेदन
प्रक्रियाधीन आवेदन
प्रदान किए गए प्रोटोटाइपिंग

2. **गोवा युवा इनोवेटर पुरस्कार** (अनुबंध-III)

गोवा युवा इनोवेटर पुरस्कार विद्यालयों और शिक्षा बोर्ड के छात्रों को एक साझा मंच पर अपने विचार प्रकट करने के लिए प्रेरित करने में सहायता करता है जिससे प्रत्येक छात्र को अपने नवप्रयोग को प्रकट करने का समान अवसर मिलता है।

प्रतियोगिता दो श्रेणियों में रखी गई थी:

श्रेणी 1: 8वीं से 10वीं कक्षा के छात्रों के लिए

श्रेणी 2: 5वीं से 7वीं कक्षा के छात्रों के लिए

स्थिति रिपोर्ट

उत्तरी गोवा और दक्षिणी गोवा के विभिन्न विद्यालयों के 200 से अधिक छात्रों ने अपने विचार प्रस्तुत किए। दोनों श्रेणियों में से प्रत्येक हेतु पुरस्कार :

पहला पुरस्कार: रु. 20,000

द्वितीय पुरस्कार: रु.10,000

तृतीय पुरस्कार: रु. 5,000

3. **बैचलर ऑफ इंजीनियरिंग के लिए अंतिम वर्ष के छात्रों हेतु नवप्रयोग छात्र परियोजना प्रतियोगिता**

यह राज्य में इंजीनियरिंग में स्नातक करने वाले छात्रों के पास अपने अंतिम वर्ष की परियोजना को विश्व को दिखाने का अद्वितीय अवसर प्रदान करता है और छात्र परयोजना प्रतियोगिता के द्वारा विशेष पहचान और नगद पुरस्कार जीतने का मौका मिलता है।

इस पहल के द्वारा अंतिम वर्ष के इंजिनियरिंग छात्रों को अपने विषय ज्ञान के साथ-साथ नवप्रयोग के लिए प्रोत्साहित करने की संकल्पना की गई है और सामाजिक/पर्यावरणीय समस्याओं का व्यवहारिक समाधान खोजने के लिए प्रेरित किया गया है।

छात्र परियोजना प्रतियोगिता निम्नलिखित मॉडल पर बनायी गई है-

नवप्रयोग और समाधान उन्मुख सोच को बढ़ावा

- गठबंधन, नेटवर्क और साझेदारी की क्षमता बढ़ाना; और नवप्रयोग परियोजनाओं के कार्यान्वयन में मदद करना।
- प्रतियोगिता गोवा में स्थित महाविद्यालयों के लिए है।

स्थिति रिपोर्ट

150 से अधिक विद्यार्थियों ने अपने प्रोजेक्ट जमा किए। दिये गए इनाम इस प्रकार हैं:

प्रथम पुरस्कार : रु 20,000/-

दूसरा पुरस्कार : रु 10,000/-

तीसरा पुरस्कार : रु 5,000/-(पाँच सांत्वना पुरस्कार)

4. गोवा अपशिष्ट प्रबंधन हैकेथोन (अनुबंध IV)

गोवा अपशिष्ट प्रबंधन हैकेथोन 2020 गोवा सरकार की पहल है ताकि गोवा ठोस अपशिष्ट प्रबंधन और निपटान की चुनौती का समाधान प्रस्तुत करने के लिए विद्यार्थियों को एक प्लेटफार्म प्रदान किया जा सके तथा समस्या समाधान की सोच के साथ उत्पाद/प्रक्रिया संबंधी नवप्रयोग करने की संस्कृति को बढ़ावा देना है। गोवा राज्य नवप्रयोग परिषद ने 18 और 19 फरवरी 2020 को डॉन बोस्को अभियांत्रिकी महाविद्यालय, फटोर्डा में हैकाथोन का आयोजन किया।

ठोस अपशिष्ट प्रबंधन की चुनौतियां और समाधान:

- सूखे अपशिष्ट को अलग करना और उसे घटाना/आरडीएफ़ (रेफ्यूज डिराइव्ड फ्युल) से नमी निकालना।
- ऊपरी जलीय स्रोतों जैसे नदियों, झीलों, तालाबों से ठोस अपशिष्ट हटाना।
- वैज्ञानिक तरीके से ट्यूब लाइटों, एलईडी और सीएफ़एल बल्बों का निपटान करना।
- वैज्ञानिक तरीके से सैनेटरी पैडों और डाइपरों का निपटान करना।

कुल 19 विद्यार्थी परियोजनाओं ने आवेदन किया और फाइनल में शामिल हुए। जमा की गई परियोजनाओं को निम्न आधारों पर मूल्यांकित किया गया :-

- समस्या की समझ और आइडिएशन
- नवप्रयोग और डिजाइन
- टिकाऊपन

5. थिंक डिजाइन प्रोटोटाइप – प्रोटोटाइप प्रयोगशाला (अनुबंध V)

प्रोटोटाइप प्रयोगशाला प्रोटोटाइप बनाने के लिए बिजली तथा लेजर कटिंग मशीन तथा 3डी प्रिंटिंग मशीन सहित आवश्यक उपकरणों से सुसज्जित है। प्रयोगशाला स्टार्टअप्स और विद्यालयों एवं महविद्यालयों के विद्यार्थियों के लिए उपलब्ध है। हम गोवा राज्य में विद्यालयों एवं महविद्यालयों के लिए एसटीईएम शिक्षा जैसे की रोबोटिक्स, आईओटी, 3डी प्रिंटिंग, लेजर कटिंग, ड्रोन बनाना इत्यादि की प्रशिक्षण कार्यशालाओं का आयोजन करते हैं।

उपकरणों की सूची इस प्रकार है:-

i लेजर कटिंग/एंग्रेविंग मशीन : 9060-80डबल्यू लेजर कटिंग/ एंग्रेविंग मशीन।

ii 3 डी : फ्लैश्फ़ोर्ज एडवेंचरर 3 और एंडर प्रो 3।

iii विद्युत उपकरण : व्यासायिक पिसाई यंत्र, गोल आरियाँ, स्मार्ट ड्रिल किट्स इत्यादि।

iv आवश्यक उपकरण : जूनियर हेक्सॉ, पेचकस का सेट, छोटी चिमटी का सेट, प्लास सेट इत्यादि।

6. **जोखिम पूंजी निधीयन सहायता**

इस पहल का उद्देश्य स्टार्टअप्स और इनोवेटर्स को फंड-रेजिंग और वेंचर कैपिटल के बारे में कुशलता और ज्ञान बढ़ाकर उनकी कार्यकुशलता को बढ़ाना है। निधि इकट्ठा करने में मदद करना भी है। 18 दिसम्बर 2019 को गोवा राज्य नवप्रयोग परिषद ने एक वेंचर कैपिटल कार्यक्रम का आयोजन किया। इस सत्र का उद्देश्य स्टार्टअप्स और इनोवेटर्स को स्टार्टअप फंड-रेजिंग और वेंचर कैपिटल के बारे में कुशलता और ज्ञान बढ़ाकर उनकी कार्यकुशलता बढ़ाना है।

7. **संकाय विकास कार्यक्रम**

संकाय विकास कार्यक्रम का उद्देश्य संकायों को उद्यम विकास का प्रशिक्षण देना है तथा उन्हें विज्ञान और प्रौद्योगिकी के नए विद्यार्थियों को नवप्रयोग के पथ पर ले जाने के लिए मार्गदर्शक और पथप्रदर्शक के रूप में कार्य करने के लिए तैयार करना है। ये सत्र, संकाय के सदस्यों को प्रशिक्षित करने और उन्हें आवश्यक कुशलता से युक्त करके गोवा के युवाओं को उद्यमिता के पथ पर अग्रसर के लिए विभिन्न विज्ञान एवं प्रद्योगिकी महाविद्यालयों, पोलिटेकनिक, उद्यम प्रशिक्षण केन्द्रों इत्यादि में आयोजित किए गए।

कार्यक्रम के उद्देश्य निम्नानुसार थे:

- शिक्षकों को प्रशिक्षण देकर कुशल बनाया जाए ताकि वे विद्यार्थियों में नवप्रयोग और रचनात्मक सोच पैदा कर सकें।
- राज्य के वर्तमान नवप्रयोग स्थितियों से रूबरू कराना, ताकि वे संसाधन व्यक्ति के तौर पर कार्य करते हुए विज्ञान एवं प्रौद्योगिकी से जुड़े युवाओं को स्टार्टअप परिवेश में व्यवसाय संबंधी संभावना तलाशने के लिए प्रेरित कर सकें।
- गोवा सरकार की नवप्रयोग और रचनात्मकता को बढ़ाने की वर्तमान नीतियों और कार्यों के विषय में जानकारी उपलब्ध करना।

8. **विद्यालयों एवं महाविद्यालयों मे नवप्रयोग पर कार्यशालाएं**

- एसटीईएम शिक्षा के संबंध में युवा विद्यार्थियों को बढ़ावा देने के लिए नवप्रयोग और रचनात्मकता पर जागरुकता कार्यशाला का आयोजन।

  गोवा राज्य नवप्रयोग परिषद ने एसटीईएम (विज्ञान, प्रौद्योगिकी, इंजीनीरिंग और गणित) शिक्षा को प्राथमिक एवं माध्यमिक विद्यालयों में बढ़ावा देना शुरू किया है। इसकी मुख्य सोच इंक्यूबेटर और टिंकरिंग प्रयोगशालाओं जैसे संबंधित संगठनों के साथ मिलकर और संपूर्ण विद्यालय पाठयक्रम योजना के संबंध में विद्यालयों को सहायता प्रदान करके छात्रों को गुणवत्ता पूर्ण शिक्षा अनुभव प्रदान करने के प्रावधानों को सुदृढ़ करने की है। इसके लिए, गोवा राज्य नवप्रयोग परिषद ने पूरे गोवा में सरकार द्वारा चलाये जाने वाले विद्यालयों तथा निजी विद्यालयों के प्राधिकारियों को प्रौद्योगिकी चालित भविष्य को समझने और अपनाने में मदद करना शुरू किया है।

- महाविद्यालयों के नौजवान छात्रों में नवप्रयोग के बारे में जागरुकता पैदा करने और उसे बढ़ावा देने के लिए नवप्रयोग पर बूट-कैंप आयोजित किए जा रहे हैं।

  नवप्रयोग पर बूट-कैम्प तीन मुख्य विंदुओं पर ध्यान केन्द्रित करते हैं- प्राद्योगिकी, नवप्रयोग और उद्यम। गोवा में, खासकर महाविद्यालय के छात्रों के लिए तैयार किए गए ये बूट-कैम्प प्रतिभागियों को उनकी रचनात्मकत्मा का दोहन करने और उन्हें मापनीय व्यापार विचार में बदलने, जोकि

नवप्रयोग के रूप में बाजार एवं समाज की विभिन्न समस्याओं समाधान कर सकें, इसके लिए प्रोत्साहित करते हैं।

- नारी केन्द्रित कार्यशालाएं (डबल्यूसीडबल्यू)

इस पहल का उद्देश्य महिलाओं में रचनात्मकता एवं आइडिएशन पावर लाकर उन्हें नवप्रयोग की शक्ति की माध्यम से मुख्य धारा में लाना है। मेंटेरशिप सहायता, हैंड्सऑन कार्यशालाएं, जनकारीयुक्त सेमिनार इत्यादि ऐसी कार्यशालाएं हैं, जो कि महिलाओं को स्वतंत्र रूप से तथा सफलतापूर्वक अपने विचारों को आत्मनिर्भर उद्यम के रूप में विकसित करना सिखाती हैं। प्रतिभागियों को सरकार की विभिन्न योजनाओं तथा वित्त संभावनाओं के बारे में बताया जाता है ताकि उनको, उनके भविष्य के प्रयासों में मदद मिल सके।

- नवप्रयोग और स्टार्टअप्स उन्मुखीकरण कार्यक्रम

यह कार्यक्रम अध्यापकों को प्रशिक्षण सत्र के द्वारा नवप्रयोग तथा रचनात्मकता पर प्रशिक्षण और मार्गदर्शन प्रदान करने तथा कार्यकुशलता और ज्ञान प्रदान करने के लिए है ताकि वे विद्यार्थियों में अभिनव विचार पैदा कर सकें।

एसटीईएम – थिंक डिजाइन प्रोटोटाइप कार्यशालाएं

स कार्यशाला का उद्देश्य उन विचारों का विकास करना और अमल में लाना है जो रचनात्मक लोगों में उपजती हैं। हम लोगों को प्रोटोटाइपिंग प्रयोगशाला के विभिन्न प्रोटोटाइपिंग उपकरण मुहैया कराते हैं ताकि वे अपने विचारों को डिजायन में तथा डिजाइन को उत्पाद में परिवर्तित कर सकें।

- उद्योग पर डिजिटाईजेशन के प्रभाव के रहस्योद्घाटन पर उद्योग संस्थान द्वारा परस्पर विचार-विमर्श ।
- प्रायर आर्ट सर्च, पेटेंटनीयता, अस्थायी पेटेंट और आइपीओ के संबंध में आईपीआर जागरुकता कार्यक्रम।

वीआईआर के तहत नए विचार के पंजीकरण पर आईपीआर सत्र

गोवा राज्य नवप्रयोग परिषद ने, आईपीआर पर उन नवप्रयोगकर्ताओं और भावी उद्यमियों, जिन्होंने अपने विचारों को वर्चुअल नवप्रयोग रजिस्टर में पंजीकृत करवाया है, के लाभ के लिए एक

जानकारीयुक्त प्रशिक्षण कार्यक्रम का आयोजन किया है। प्रशिक्षण कार्यक्रम का उद्देश्य नया विचार प्रस्तुत करने वालों को उनके आविष्कार और विचारों को चोरी या नकल से बचाने के बारे में जानकारी देना था।

दिनांक : 13 अक्टूबर, 2018

कुल भागीदार: 37

स्थान: डॉन बॉस्को कॉलेज ऑफ इंजीनियरिंग, फतोर्दा

वक्ता:

श्री बी एस रेवनकर, पूर्व निदेशक, एनआईटीके- एसटीईपी सुरथकर

7) श्रीमती गौतमी रायकर, संस्थापक, लॉमेट.इन

8) श्री तुषार सावंत, मैनेजर, एफआईआईआरई

2. वीआईआर के तहत पंजीकृत नए आइडिया के लिए पेटेंट खोज संबंधी आईपीआर प्रशिक्षण सत्र

गोवा राज्य नवप्रयोग परिषद ने वीआईआर संबंधी पंजीकृत नए आइडिया के लिए पेटेंट खोज पर एक सूचनात्मक आईपीआर प्रशिक्षण सत्र का आयोजन किया है। 101 भागीदारों को, कापीराइट, साहित्यिक चोरी, उचित उपयोग, छूट आदि अवधारणों पर शिक्षित किया गया था। उनको पेटेंट फाइलिंग और अन्य महत्वपूर्ण विषयों में भी शिक्षित किया गया था जो कि आने वाले समय में उनके नवप्रयोग को सुरक्षित करने में मदद करेगें।

दिनांक: 24 सितंबर, 2019

कुल भागीदार: 101

स्थान: गोवा इंजीनियरिंग कॉलेज, फ़ार्मागुड़ी

वक्ता:

डॉ. सुहास कुलकर्णी, पेटेंट और डिजाइन उप नियंत्रक, पेटेंट, ट्रेडमार्क और डिजाइन, नियंत्रक कार्यालय, आईपी कार्यालय ।

iv) डॉ. बी विवेक आनंद सागर, आईपी अटार्नी और सलाहकार, बैंगलोर

3. स्टार्टअप्स, विद्यार्थी और संकाय के लिए आईपीआर जागरूकता सत्र

गोवा में नवप्रयोग को प्रोत्साहित करने के उद्देश्य के साथ, गोवा राज्य नवप्रयोग परिषद न केवल युवाओं को उनकी रचनात्मकता को काम में लाने और अभिनव भावना के लिए प्रशिक्षित करता है बल्कि पेटेंट और कापीराइट जैसे अन्य संबंधित दृष्टिकोणों पर भी शिक्षित करता है।

दिनांक: 25 सितंबर, 2019

कुल भागीदार: 45

स्थान: डॉन बॉस्को कॉलेज ऑफ इंजीनियरिंग, फटोर्डा

वक्ता:

डॉ.टी रामाकृष्णा, इंडियन लॉ स्कूल, बैंगलोर

4. स्कूल के विद्यार्थियों के लिए आईपीआर जागरूकता सत्र

गोवा राज्य नवप्रयोग परिषद ने गोवा में आईपीआर पर दो सूचनात्मक सत्रों का आयोजन किया। द्वितीय सत्र, भारत में बौद्धिक संपदा अधिकारों के मूल तत्वों और आईपीआर की प्रक्रिया पर केंद्रित था, जोकि न्यू एजुकेशन इंस्टीट्यूट स्कूल, कर्चोरम में 25 सितंबर, 2019 को आयोजित किया गया। इस कार्यक्रम में 175 भागीदारों की विशाल उपस्थिति देखी गई, जिन्होंने निस्संदेह बीच-बीच में आए वास्तविक जीवन के उदाहरणों से सीखते हुए व्याख्यान का आंनद लिया होगा।

दिनांक: 25 सितंबर, 2019

कुल भागीदार: 175

स्थान: न्यू एजुकेशन इंस्टीट्यूट स्कूल, कर्चोरम

वक्ता:

3. डॉ. बी विवेक आनंद सागर, आईपी अटार्नी और सलाहकार, बैंगलोर

5. बौद्धिक संपदा अधिकारों का महत्व

बौद्धिक संपदा अधिकारों का महत्व- 31 जनवरी, 2019 को प्रात: 10.00 बजे, वर्ल्ड ट्रेड सेंटर गोवा, ईडीसी हाउस में "बौद्धिक संपदा अधिकारों का महत्व" पर एक दिन का जागरूकता सेमिनार आयोजित हुआ।

दिनांक: 31 जनवरी, 2019

कुल भागीदार: 40

स्थान: वर्ल्ड ट्रेड सेंटर गोवा, ईडीसी हाउस

वक्ता:

4. श्री जोस मैनुअल नोरोन्हा, अध्यक्ष, जीएसआईएनसी

5. डॉ. मिथिलेश कुमार, संयुक्त-सचिव, पीएचडी चैंबर

6. श्री संदीप अग्रवाल, निदेशक, अडस्ट्रा आईपी प्राइवेट लिमिटेड

7. डॉ. एच पी कुमार, सलाहकार, पीएचडी चैंबर

8. श्री विश्व नाथ, अध्यक्ष, एमएसएमई परिषद

9. श्री विजय टी डोए, पेटेंट और डिजाइन सहायक नियंत्रक, पेटेंट, ट्रेडमार्क और डिजाइन कार्यालय, आईपी कार्यालय

6. बौद्धिक संपदा अधिकार-अपनी पेटेंट योग्य क्षमता को जानें

दिनांक: 26 सितंबर, 2020

कुल भागीदार: 246

स्थान: आनलाइन जूम मीटिंग

वक्ता:

श्री राहुल बग्गा, निदेशक, अडस्ट्रा आईपी प्राइवेट लिमिटेड

4. श्री संदीप अग्रवाल, निदेशक, अडस्ट्रा आईपी प्राइवेट लिमिटेड

7. बौद्धिक संपदा अधिकार-जागरूकता कार्यक्रम

दिनांक: 2 दिसंबर, 2020

कुल भागीदार: 246

स्थान: आनलाइन जूम मीटिंग

वक्ता:

5. श्री राहुल बग्गा, निदेशक, अडस्ट्रा आईपी प्राइवेट लिमिटेड

6. श्री संदीप अग्रवाल, निदेशक, अडस्ट्रा आईपी प्राइवेट लिमिटेड

8. बौद्धिक संपदा अधिकार-पेटेंट खोज

दिनांक: 10 दिसंबर, 2020

कुल भागीदार: 70

स्थान: आनलाइन जूम मीटिंग

वक्ता:

7. श्री राहुल बग्गा, निदेशक, अडस्ट्रा आईपी प्राइवेट लिमिटेड

8. श्री संदीप अग्रवाल, निदेशक, अडस्ट्रा आईपी प्राइवेट लिमिटेड

9. बौद्धिक संपदा अधिकार- पेटेंट फाइलिंग और अभियोजन- भारत और विदेश

दिनांक: 17 दिसंबर, 2020

कुल भागीदार: 150

स्थान: आनलाइन जूम मीटिंग

वक्ता:

9. श्री राहुल बग्गा, निदेशक, अडस्ट्रा आईपी प्राइवेट लिमिटेड

10. श्री संदीप अग्रवाल, निदेशक, अडस्ट्रा आईपी प्राइवेट लिमिटेड

10. बौद्धिक संपदा अधिकार- संकाय विकास कार्यक्रम

दिनांक: 20 नवंबर, 2020

कुल भागीदार: 35

स्थान: आनलाइन जूम मीटिंग

वक्ता:

श्रीमती शालिनी मेनेजेस, निदेशक, सिम सिम एडवाइजरी

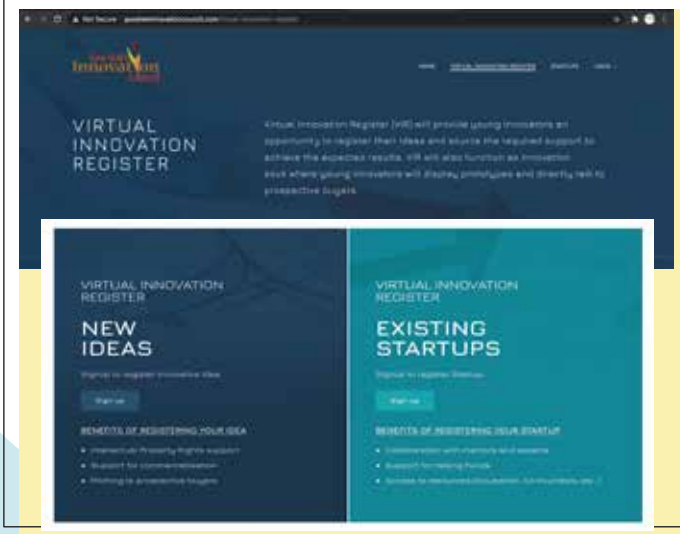
गोवा सरकार ने विज्ञान, प्रौद्योगिकी और अपशिष्ट प्रबंधन विभाग के द्वारा विज्ञान और प्रौद्योगिकी के क्षेत्र में शोधकर्ताओं के लिए योजनाएं तैयार की हैं जिसमें तीन वर्ष की अवधि के लिए अधिकतम 5 शोधकर्ताओं को प्रति वर्ष 2,50,000/- रू की राशि और विद्यार्थियों की परियोजना के लिए 10 विद्यार्थियों/ विद्यार्थियों के समूह को शैक्षणिक परियोजनाओं के लिए 2,50,000/- रू. की निधि प्रदान की जाती है।

2.3 Presentation

Goa State Innovation Council

Launch of Virtual Innovation Register at the hands of the Hon'ble Ex-Chief Minister of Goa, late Shri Manohar Parrikar on 05-07-2018

GSInC | Initiatives | Virtual Innovation Register



Virtual Innovation Register (VIR) provides young innovators an opportunity to register their ideas and source the required support to achieve the expected results. VIR also function as innovation souk where young innovators will display prototypes and directly talk to prospective buyers.

BENEFITS OF REGISTERING YOUR IDEA

- Intellectual Property Rights support
- Support for prototyping & commercialisation
- Pitching to prospective buyers

- **BENEFITS OF REGISTERING YOUR STARTUP**
  Collaboration with mentors and experts
- Support for raising Funds
- Access to resources (Incubation, Co-Founders, etc..)

GSInC | Initiatives | Virtual Innovation Register | Schemes

SCHEME FOR PATENT FILING UNDER VIRTUAL INNOVATION REGISTER (VIR)

The scheme aims to promote awareness and adoption of Intellectual Property Rights amongst the students and innovators.

An applicant under this Scheme shall be eligible for a support of upto Rs. 10,000 for filing provisional patent application through the aforesaid patent agents/ firms.

SCHEME OF FINANCIAL ASSISTANCE FOR PROTOTYPING UNDER VIRTUAL INNOVATION REGISTER (VIR)

Scheme to provide financial assistance for prototyping technology-based innovative projects/ideas under the Virtual Innovation Register (VIR

An applicant under this Scheme shall be eligible for financial assistance of up to Rs. 20,000/- per project.

GSInC | Initiatives | Virtual Innovation Register | Status Report

Startups: 48

285

New Ideas: 237

19

Prototyping Grants

Applications received: 33
Applications rejected: 5
Applications under process: 9

6

Provisional Patents

Applications received: 148
Applications rejected: 73
Applications under process: 69

GSInC | Initiatives | Think Design Prototype – Prototyping Lab

The Lab is access by Startups and students from schools & colleges.

Training workshops on STEM Education such as Robotics, IoT, 3D Printing, Laser Cutting, Drone making, etc for the Schools and Colleges from the State of Goa.

List of Equipment are:

- Laser Cutting /Engraving Machine: 9060-80W Laser Cutting /Engraving Machine
- 3D Printer: Flashforge Adventurer 3 and Ender Pro 3
- Power Tools: Professional Grinders, Circular Saws, Smart Drill Kits, etc
- Essential Tools: Junior Hacksaw, Screw Driver Set, Micro Chisel Set, Plier Set, etc

GSInC | Initiatives | Goa's Young Innovators Award

Goa's Young Innovators Award helps encourage students across schools and education boards to present their ideas on a common platform, giving each student an equal opportunity to demonstrate their innovation.

The Competition was held in two categories:
Category 1 : For students from Standard 8th to 10th
Category 2 : For students from standard 5th to 7th

Criteria:
Idea, Innovation & Creativity, Feasibility in terms of technology, Prototype, Scalability & Sustainability.

Total number of Projects submitted **250+**

GSInC | Initiatives | Final Year Innovative Student Project Competition

The initiative is conceptualized to encourage final year engineering students to brew innovation with their subject knowledge and come up with practical solutions to social/environmental problems.

The Student Project Competition is built on the model of:
- Supporting innovative and solutions-oriented thinking
- Strengthening the capacity of coalitions, networks, and partnerships; and supporting the implementation of innovative projects (ideas into action)
- Competition is open for students of colleges based in Goa

Total number of Projects submitted **350+**

GSInC | Initiatives | Goa Waste Management Hackathon

Goa Waste Management Hackathon 2020 is an initiative of Government of Goa to provide students a platform to solve challenges faced in Solid Waste management and disposal in Goa and thus incubate the culture of product/process innovation with problem solving mindset.

Goa State Innovation Council conducted the Hackathon on 18th & 19th Feb 2020 at Don Bosco College of Engineering, Fatorda.

Challenges faced in Solid Waste Management and disposal :

- Segregation of Dry Waste & reduction/ elimination of moisture from RDF(Refuse Derived Fuel).
- Removal of Solid Waste from Surface water bodies for eg. Rivers, Lakes, Ponds.
- Disposal of tubelights, LED's and CFL bulbs in scientific manner.
- Disposal of Sanitary Pads and Diapers in scientific manner.

GSInC | Initiatives

Risk Capital Funding Support

The objective of the initiative is to upskill the Startups and Innovators with the skills and knowledge about startup fundraising and Venture Capital

Faculty Development Program

Aimed at training faculties in entrepreneurship development to turn them into resource persons for guiding and mentoring young science and technology students on the path of innovation.

Sensitisation Workshop on innovation & Creativity are conducted to promote STEM Education amongst young school students.

STEM – Think Design Prototyping Workshops

Bootcamp on Innovations & Startups are conducted to promote and create awareness about innovation amongst students from Colleges.

Industry Institute Interactions

Women Centric Workshop

The aim of this initiative is to harness the creativity and ideation power of women and bring them into the mainstream through the power of innovation

Orientation Program on Innovation & Startups

Program is to train and guide the teachers on innovation and equipping with skills and knowledge that are essential for inculcating innovative ideas in students.

Sr No	Dates	IPR Event Details	Total Participants
1	13 Oct 2018	IPR session on for New Ideas registered under VIR	37
2	24 Sept 2019	IPR Training session on Patent Search for New Ideas registered under VIR	101
3	25 Sept 2019	IPR Awareness session for Startups, Students & Faculty	45
4	25 Sept 2019	IPR Awareness session for School students	175
5	31 Jan 2019	Importance of Intellectual Property Rights	40
6	26 Sept 2020	Intellectual Property Rights – Know your Patentability Potential	246
7	2 Dec 2020	Intellectual Property Rights – Awareness Program	246
8	10 Dec 2020	Intellectual Property Rights – Patent Search	70
9	17 Dec 2020	Intellectual Property Rights – Patent Filing and Prosecution - India & Overseas	150
10	20 Nov 2020	Intellectual Property Rights – Faculty Development Program	35

3. Forum for Innovation Incubation Research and Entrepreneurship (FiiRE)

3.1 Background Note in English

Forum for Innovation Incubation Research and Entrepreneurship (FiiRE) is a technology business incubator established with the support of the Department of Science and Technology, Government of India under the National Initiative for Developing and Harnessing Innovations (NIDHI), an umbrella programme conceived and developed by the Department of Science & Technology, Government of India, for nurturing ideas and innovations (knowledge-based and technology-driven) into successful startups. FiiRE is hosted at the Don Bosco College of Engineering Fatorda, promoted by The Fatorda Salesian Society which is part of the world wide society of Don Bosco having branches in over a hundred countries. In India, Don Bosco Society has over five hundred institutes engaged in the education of the young.

FiiRE supports early stage technology ventures which work towards innovation, development or improvement of products or processes or services with a scalable business model. It offers Incubation support, Co-working space, Testing Laboratory, Training Halls and other facilities to its incubatees and entrepreneurs. FiiRE helps startups setup a sustainable business, which solves a real pain, has a global impact, provides value to customers, livelihood and satisfaction to their employees. FiiRE through its structured incubation process, helps start-ups build prototypes, provides access to strategic mentors, early adopters and investors.

FiiRE has been working towards building a world class support system with the following objectives;

- Promote innovation and entrepreneurial specific environment and provide cost effective, value added services to startups.
- Build a vibrant startup ecosystem by establishing a network between academia, financial institutions, research institutions and industry.
- Promote new technology/ knowledge/ innovation based startups and support high potential SME sector and Industry development.
- Provide a platform for evaluation and speedy commercialization of technologies.
- Create competitiveness in the economy, generate jobs and wealth.

The various channels through which FiiRE has been able to identify and attract innovators and startups are early stage or first time entrepreneurs, serial entrepreneurs, college level hackathons, rural innovators, student projects, industry backed problem statements etc. This has generated a pool of potential entrepreneurs, who can benefit from the various opportunities provided by the incubator and approach FiiRE to seek valuable guidance, to get started.

A process & curriculum based approach has helped FiiRE identify the various stages at which startups approach the incubator, to seek support and evaluate, classify the startups accordingly before on-boarding them for the incubation process. This process has helped handhold startups, who have filed patents at various stages and are working towards commercializing their innovative products and services.

FiiRE extends various initiatives to support startups, such as;

- Incubation program to assist, validate and launch startups.
- Fastrack program to provide strategic inputs, interventions to accomplish high ticket conversions.
- Co-incubation program to help startups grow through a shared support system
- Investment support to attract early stage funding from angel investors and VCs.

FiiRE has supported over 45 startups and currently works with 30 startups, out of which 2 startups have raised funds for their product development.

FiiRE has conducted various flagship events, such as;

- VHAck Hackathon to solve challenges centric to Goa Shipyard Limited
- Investor meet Demo Day for Early stage fundraising
- Business Diva in association with GCCI Women's wing to promote women entrepreneurship
- Collaborative event with Stademy Australia to help launch startups in India (Goa)
- HEAT - Helping Entrepreneurs Achieve and Thrive by learning through peer support and goal setting.

FiiRE hosts ecosystem events for technology entrepreneurship awareness, such as;

- FiiRE Starter Kit
- Transfer of technologies
- A new world of testing
- Exo Meetup

FiiRE's current focus is on incubation of startups under Agriculture and agritech, industry 4.0, product development and manufacturing across various sectors. This enables FiiRE to work with early stage startups and provide them with support systems such as access to PCB design lab, Prototyping lab, state of the art design softwares and tutorials. These facilities are equally and freely made available to the student fraternity. A dedicated access to Goa State Innovation Council is also made available to ensure innovative ideas are registered for the protection of originality and access to funds for bringing out prototypes and registering patents. This includes startup ideas and student ideas. In addition to these facilities, we have also tied up with IP support agencies to timely provide basic education for ideation using existing patent information, protection of new innovation etc.

With the right infrastructure and support system, FiiRE has proven to be a sandbox for innovative startups to ideate, resulting in breakthrough product designs and has created an atmosphere of IP based competency among the incubatee startups. To highlight a few successful IP based outcomes that are currently being pursued for commercialization;

- Rekise Marine Pvt Ltd - Autonomous, battery operated surveillance vehicle
- Barve Technologies - Life saving temperature regulating machine
- Pro Healthy Life Style - Innovation to existing dental surgery equipment
- Team Yaguar - Drag reduction for increased performance and multi contour duct designed to increase the velocity by 2.5 times.

FiiRE has also explored the opportunities for finding solutions through the intervention of engineering and design to the challenges experienced due to the pandemic by a flagship initiative "Let's Sove Your Problem". Library monitoring robotic system and sanitizing robot are the projects presently pursued.

FiiRE also partnered an initiative "Ideas for Goa" for the revival of the Goan through citizen initiated Ideas. FiiRE has linkages with the various Govt. agencies such as Goa State Innovation Council, Goa Startup Promotion Cell, Goa Shipyard Limited, and linkages with ecosystem enablers such as AWS activate, Dassault Solidworks, Goa State Industries Association, Indian Academy of Venture Capital, 100x.VC.

3.2 Background Note in Hindi

फोरम फॉर इनोवेशन इन्क्यूबेशन रिसर्च एंड इंटरप्रेन्योरशिप (एफआईआईआरई)

का पृष्ठभूमि टिप्पण

फोरम फॉर इनोवेशन इन्क्यूबेशन रिसर्च एंड इंटरप्रेन्योरशिप (एफआईआईआरई) नई सोच और नवप्रयोगों (ज्ञान आधारित और प्रौद्योगिकी चालित) को पोषित करके सफल स्टार्टअप्स में बदलने के लिए भारत सरकार के विज्ञान और प्रौद्योगिकी विभाग द्वारा सृजित और विकसित एक व्यापक कार्यक्रम 'नेशनल इनिशिएटिव फॉर डेवलपिंग एंड हॉरनेसिंग इनोवेशन्स' (एनआईडीएचआई) के अंतर्गत भारत सरकार के विज्ञान और प्रौद्योगिकी विभाग की सहायता से स्थापित एक प्रौद्योगिकी व्यवसाय इन्क्यूबेटर है। एफआईआईआरई का आयोजक डॉनबॉस्को कॉलेज ऑफ इंजिनियरिंग को बनाया गया है, और इसको फैटोर्डा सालेशियन सोसॉयटी द्वारा प्रोत्साहित किया गया है जो कि डॉनबॉस्को की एक विश्वव्यापी सोसायटी है जिसकी शाखाएं 100 से अधिक देशों में है। भारत में युवाओं को शिक्षित करने में डॉनबॉस्को सोसायटी के 500 से अधिक संस्थान संलग्न हैं।

एफआईआईआरई आरंभिक स्तर के प्रौद्योगिक उद्यमों को सहायता प्रदान करता है जोकि नवप्रयोग, वृद्धिमान व्यवसाय मॉडल वाले उत्पादों अथवा प्रक्रियाओं अथवा सेवाओं के विकास या सुधार के लिए कार्य करते हैं। यह अपने इन्क्यूबेटीज और उद्यमियों को इन्क्यूबेशन सहायता, कार्य करने हेतु स्थान, परीक्षण प्रयोगशाला, प्रशिक्षण हॉल और अन्य सुविधाएं प्रदान करता है। एफआईआईआरई स्टार्टअप्स को एक टिकाऊ व्यवसाय स्थापित करने में मदद करता है जो कि उनकी वास्तविक कठिनाई को दूर करता है, इसका एक वैश्विक प्रभाव है और यह उपभोक्ताओं को महत्व देती है, अपने कर्मचारियों को अजीविका और संतुष्टि प्रदान करती है। एफआईआईआरई अपनी संरचनात्मक इन्क्यूबेशन प्रक्रिया के माध्यम से प्रोटोटाइप का निर्माण करने, कार्यानीतिक मार्गदर्शकों, आरंभिक एडॉप्टर्स और निवेशकों तक पहुंच प्रदान करने में स्टार्टअप्स की मदद करती है।

एफआईआईआरई निम्नलिखित उद्देश्यों के साथ एक विश्वस्तरीय सहायता प्रणाली का निर्माण करने के लिए कार्य कर रही है:

नवप्रयोग और उद्यमियता हेतु विशिष्ट वातावरण को बढ़ावा देना और स्टार्टअप्स को किफायती, मूल्य संवर्धित सेवाएं प्रदान करना।

- शिक्षा जगत, वित्तीय संस्थाओं, अनुसंधान संस्थानों और उद्योग के बीच एक नेटवर्क स्थापित करके एक सक्रिय उत्साहपूर्ण परिवेश का निर्माण करना।

- नई प्रौद्योगिकी/ज्ञान/नवप्रयोग आधारित स्टार्टअप्स को बढ़ावा देना तथा अधिक संभावना वाले एसएमई क्षेत्र और उद्योग के विकास को सहायता प्रदान करना।
- प्रौद्योगिकियों के मूल्यांकन और शीघ्र वाणिज्यीकरण के लिए मंच उपलब्ध कराना।
- अर्थव्यवस्था में प्रतिस्पर्धात्मकता का सृजन, रोजगार और संपत्ति सृजित करना।

एफआईआईआरई जिन विभिन्न माध्यमों से नवप्रयोगकर्ताओं और स्टार्टअप्स की पहचान और उन्हें आकर्षित करता है, उनमें प्रारंभिक स्तर अथवा पहली बार के उद्यमी, क्रमिक उद्यमी, कॉलेज स्तरीय हैकाथॉन, ग्रामीण इनोवेटर, छात्र परियोजनाएं, उद्योग समर्थित प्रॉब्लम स्टेटमेंट आदि शामिल हैं। इसने संभावित उद्यमियों के एक समूह का सृजन किया है, जो इन्क्यूबेटर द्वारा प्रदान किए गए विभिन्न अवसरों का लाभ उठा सकते हैं और अपना कार्य शुरू करने के लिए मूल्यवान मार्गदर्शन प्राप्त करने हेतु एफआईआईआरई से संपर्क कर सकते हैं।

एक प्रक्रियागत और पाठ्यक्रम आधारित दृष्टिकोण से एफआईआईआरई को विभिन्न स्तरों की पहचान करने में मदद मिलती है जिनमें स्टार्टअप्स सहायता और मूल्यांकन हेतु इंक्यूबेटर से संपर्क करते हैं, उन्हें इंक्यूबेशन प्रक्रिया में शामिल करने से पूर्व तद्नुसार उनका वर्गीकरण किया जाता है इस प्रक्रिया से उन स्टार्टअप्स को सहायता प्रदान करने में मदद मिली है जिन्होंने विभिन्न स्तरों पर पेटेंट दायर किया है और अपने अभिनव उत्पादों और सेवाओं के वाणिज्यीकरण के लिए कार्य कर रहे हैं।

एफआईआईआरई ने स्टार्टअप्स को सहायता प्रदान करने के लिए कई पहलें की हैं, जैसे कि;

स्टार्टअप्स को सहायता प्रदान करने, उनका वैधीकरण करने और शुरू करने हेतु इंक्यूबेशन कार्यक्रम

- कार्यनीतिक निविष्टि प्रदान करने के लिए फॉस्टट्रैक प्रोग्राम, उच्चमूल्य परिवर्तनों को प्राप्त करने के लिए कार्यकलाप।
- साझा सहायता प्रणाली के माध्यम से स्टार्टअप्स को विकास में मदद करने के लिए को-इंक्यूबेशन प्रोग्राम।
- एंजेल निवेशकों और वीसी से आरंभिक स्तर पर निधियन आकर्षित करने के लिए निवेश सहायता

एफआईआईआरई ने 45 से अधिक स्टार्टअप्स को सहायता प्रदान की है और वर्तमान में 30 स्टार्टअप्स के साथ कार्य कर रहा है, जिसमें से 2 स्टार्टअप्स ने अपने उत्पाद विकास के लिए निधि एकत्र कर ली है।

एफआईआईआरई में विभिन्न महत्वपूर्ण कार्यक्रम आयोजित किए, जैसे :

गोवा शिपयार्ड लि. से संबंधित चुनौतियों के समाधान हेतु वीहैक हैकाथॉन

- आरंभिक स्तर पर निधि एकत्रित करने के लिए इंवेस्टर मीट डेमो डे
- महिला उद्यमियता को बढ़ावा देने के लिए जीसीसीआई महिला विंग के साथ मिलकर बिजनेस दिवा
- स्टार्टअप्स इन इंडिया (गोवा) शुरू करने में मदद हेतु स्टैडेमी ऑस्ट्रेलिया के साथ मिलकर सहयोगपूर्ण आयोजन
- एचईएटी - सहयोगियों की सहायता के माध्यम से शिक्षण द्वारा उद्यमियों को लक्ष्य प्राप्त करने तथा विकसित होने में मदद करना और लक्ष्य का निर्धारण

एफआईआईआरई प्रौद्योगिकी उद्यमियता जागरूकता हेतु परिवेश संबंधी कार्यक्रमों की मेजबानी करता है, जैसे कि:

एफआईआईआरई स्टार्टर किट

- प्रौद्योगिकियों का हस्तांतरण
- परीक्षण की एक नई दुनिया
- एक्सो मीटअप

वर्तमान में एफआईआईआरई का ध्यान मुख्य रूप से और कृषि- प्रौद्योगिकी के तहत स्टार्टअप्स के इंक्यूबेशन, उद्योग 4.0, विभिन्न क्षेत्रों में उत्पाद विकास और विनिर्माण पर केंद्रित है। यह एफआईआईआरई को आरंभिक स्तर के स्टार्टअप्स के साथ कार्य करने और उन्हें सहायता प्रणाली जैसे कि पीसीबी डिजाइन लैब, प्रोटोटाइपिंग लैब, अत्याधुनिक डिजाइन सॉफ्टवेयर और ट्यूटोरियल्स तक पहुंच प्रदान करने में मदद करने में सक्षम बनाता है। ये सुविधाएं समान रूप से और निशुल्क रूप से छात्र जगत को भी उपलब्ध करायी जाती हैं। गोवा राज्य नवप्रयोग परिषद तक समर्पित पहुंच भी उपलब्ध करायी गई है ताकि यह सुनिश्चित किया जा सके कि मौलिकता की सुरक्षा के लिए अभिनव विचारों को पंजीकृत किया जाए और प्रोटोटाइप बनाने के लिए तथा पेटेंट पंजीकृत करने के लिए निधि उपलब्ध हो। इसमें स्टार्टअप संबंधी नई सोच और छात्रों की सोच शामिल है। इन सुविधाओं के अतिरिक्त हमने आईपी सहायक एजेंसियों के साथ भी गठजोड़ किया है ताकि मौजूदा पेटेंट सूचना, नए नवप्रयोग की सुरक्षा आदि का उपयोग करके नई सोच को आकार देने हेतु समय पर बुनियादी शिक्षा प्रदान की जा सके।

उचित अवसंरचना और सहायता प्रणाली के साथ, एफआईआईआरई नई सोच को आकार देने के लिए अभिनव स्टार्टअप्स को परीक्षण वातावरण प्रदान करने वाला साबित हुआ है, जिसका परिणाम महत्वपूर्ण उत्पाद डिजाइन के रूप में सामने आया है और इसने इंक्यूबेटिक स्टार्टअप्स के बीच आईपी आधारित दक्षता का वातावरण सृजित किया है। कुछ सफल आईपी आधारित परिणाम जिन्हें वर्तमान में वाणिज्यीकरण के लिए आगे बढ़ाया जा रहा है, वे हैं;

रेकीसे मेराइन प्रा.लि. – स्वायत, बैटरी चालित निगरानी वाहन

- बरवे टेक्नोलॉजिज – जीवन रक्षक तापमान नियंत्रक मशीन
- प्रो हेल्दी लाइफ स्टाइल – मौजूदा दंत शल्य क्रिया उपकरण संबंधी नवप्रयोग
- टीम यागुआर – कार्यनिष्पादन बढ़ाने के लिए ड्रैग रिडक्शन और 2.5 गुना गति बढ़ाने के लिए तैयार किया गया मल्टी कांटूर डक्ट

एफआईआईआरई ने ''चलो आपकी समस्या का समाधान करें'' की अग्रणी पहल द्वारा महामारी के दौरान अनुभव की गई चुनौतियों हेतु इंजिनियरिंग और डिजाइन कार्यकलाप के माध्यम से समाधान निकालने के अवसरों का भी पता लगाया है। पुस्तकालय निगरानी रोबोटिक प्रणाली और सेनेटाइजिंग रोबोट वर्तमान में चल रही परियोजनाएं हैं। एफआईआईआरई ने नागरिकों द्वारा शुरू किए गए विचारों के माध्यम से गोवा वासियों के पुनरूत्थान हेतु ''आईडियाज फॉर गोवा'' पहल में भी भागीदारी की है। एफआईआईआरई गोवा राज्य नवप्रयोग परिषद, गोवा स्टार्टअप्स संवर्धन परिषद, गोवा शिपयार्ड लि. जैसी विभिन्न एजेंसियों और एडब्ल्यूएस एक्टिवेट, डेसाल्ट सॉलिड वर्क्स, गोवा राज्य औद्योगिक संघ, इंडियन एकेडेमी ऑफ वेंचर कैपिटल, 100x.वीसी जैसे परिवेश सहायकों के साथ जुड़ा हुआ है।

3.3 Presentation

Simplifying Startup Innovation

Forum for Innovation Incubation Research & Entrepreneurship (FiiRE)

Catalyzed & Supported by
NSTEDB DIVISION
DEPARTMENT OF SCIENCE & TECHNOLOGY

Forum for Innovation Incubation Research and Entrepreneurship (FiiRE) is a technology business incubator established with the support of the Department of Science and Technology, Government of India under the National Initiative for Developing and Harnessing Innovations (NIDHI)

FiiRE is hosted at the Don Bosco College of Engineering, Fatorda promoted by The Fatorda Salesian Society which is part of the world wide society of Don Bosco having branches in over a hundred countries. In India, Don Bosco Society has over five hundred institutes engaged in the education of the young.

Infrastructure

Reception

Reading Space

PCB Lab

Workspace

Auditorium

Conference Room

Meeting Room

Thinking Room

Sectors

Early Stage Startups 01

Acceleration Program 02

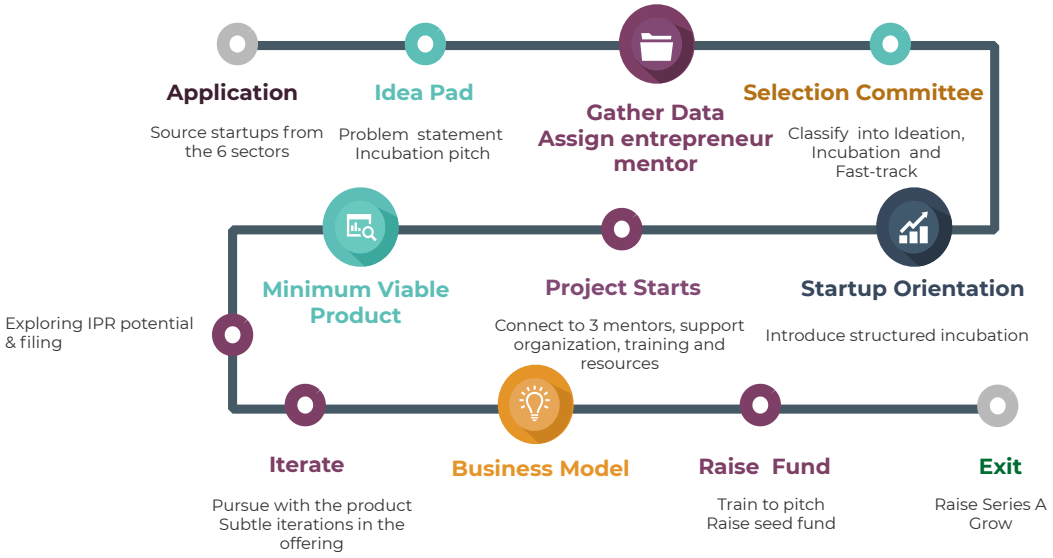
Rural Innovations 03

Industry Linked 04

Technology Transfer 05

Student Startups 06

Process



Outcome

Pitch to IPR resources empanelled for IPR & prototyping grant

Grant disbursal & filing of IPR before market launch

Supporting innovation through incubation process & resources

Selection of innovative products for IPR support

Statistics

Startups Assisted 75+

Startups Supported 45

Startups Incubated 30

Event Attendees 500+

Startup Events 60+

Potential Entrepreneurs Engaged 2500+

Events

VHAcK Hackathon
Startups solving challenges centric to Goa Shipyard Limited.

Intellectual Property Rights – Know your Patentability Potential
Patent search to improve the chances of obtaining a patent registration.

Idea Generation using Patent Information
Using patent search methodology to understand lapsed patents and start new businesses.

HEAT
Connecting startups with relevant technical and functional mentors, for scaling up.

FiiRE Starter Kit
Open Source kit for Startups to begin exploring their next big idea.

Stademy Startup Competition
Flagship startup competition to help entrepreneurs set up joint ventures, with founders from other countries.

Business Diva
Encouraging women entrepreneurs to implement & grow their business ideas.

Investor Meet Demo Day
Networking and pitching to investor for feedback, fundraise.

Spark the FiiRE
An ideation bootcamp to inspire the next big startup idea from buddying students to potential entrepreneurs.

Ecosystem Enablers

IPR Facilitation

Virtual Innovation Register

Provisional Patent Scheme

Trademark Registration support

IPR Commercialization

Sr No	Startup Team	No of patents	Area of Innovation
01	Rekise Marine Pvt Ltd	01	Autonomous, battery operated surveillance vehicle
02	Barve Technologies	01	Life saving temperature regulating machine
03	LaFabrica Craft Pvt Ltd	01	Design intervention, paper bag that can carry upto 10 kilos
04	Team Yaguar	02	Drag reduction for increased performance and multi contour duct designed to increase the velocity by 2.5 times.
05	Pro Healthy Life Style	01	Innovation to existing dental surgery equipment (in progress)

4. Review of Intellectual Property Rights Regime in India

4.2 4.1 Background Note in English

Review of Intellectual Property Rights Regime in India by Adv. Shalini Sitaraman Menezes

India has a rich and varied cultural heritage. We are known globally as the land of Yoga and Ayurveda, Unani, gurukul system of education with wise men and women passing down knowledge orally, through scriptures and practice. We worship Saraswati- the Goddess of learning and believe any creative and intellectual endeavour is a gift of the Goddess. It is surprising then that, despite being one of the largest holders and creators of intellectual capital, in the world of Intellectual Property Rights, where the product of one's intellect and creativity is treated on par with real and tangible property, India is lagging behind other countries.

The need of the hour is to study the IPR filings in our country as well as the other countries and take note of the growth trends. A comparative study of the patents and trademarks provisions of the major applicants and India may shed light on the changes that can be brought about in our IPR regime to ultimately increase our intellectual property filings and thereby reflect in our intangible wealth.

India's patent, trademark and design filing statistics for the period of 2013-2019 is shown below:

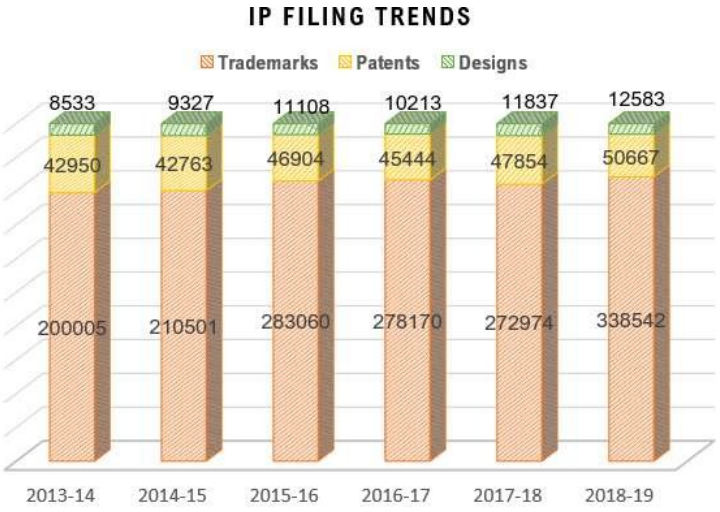


Figure 1: IP Filing Trends in India (https://www.lexology.com/library/detail.aspx?G=c5d796fd-e8a0-4b2b-b352-1ad132bb5cca)

A look at the patenting trends at the top 20 applicant countries from 2010-2019 (data courtesy WIPO statistics)

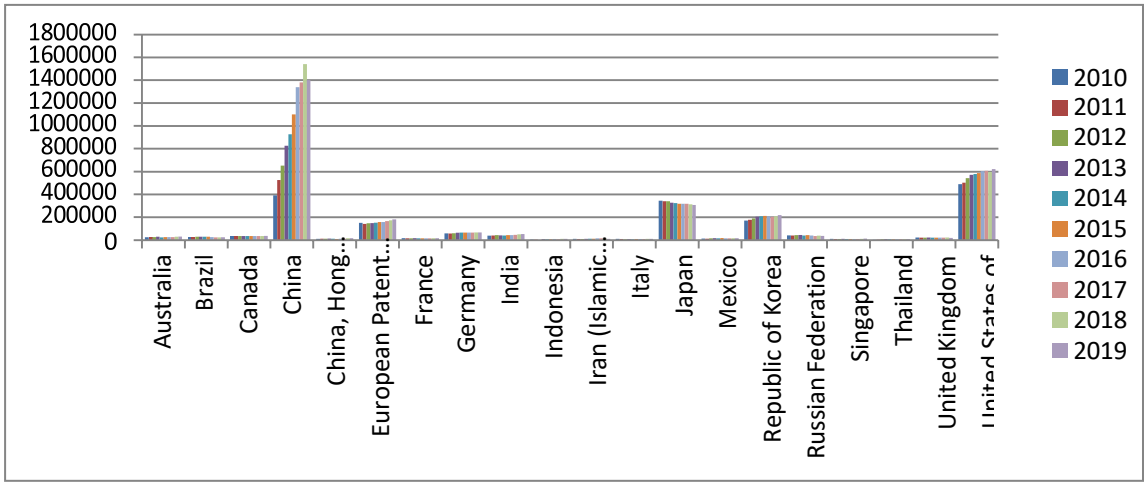


Figure 2: Patent trends Worldwide

Figure 3 shows the trademark trend for top 20 applicant countries from 2010-2019 (data courtesy WIPO statistics)

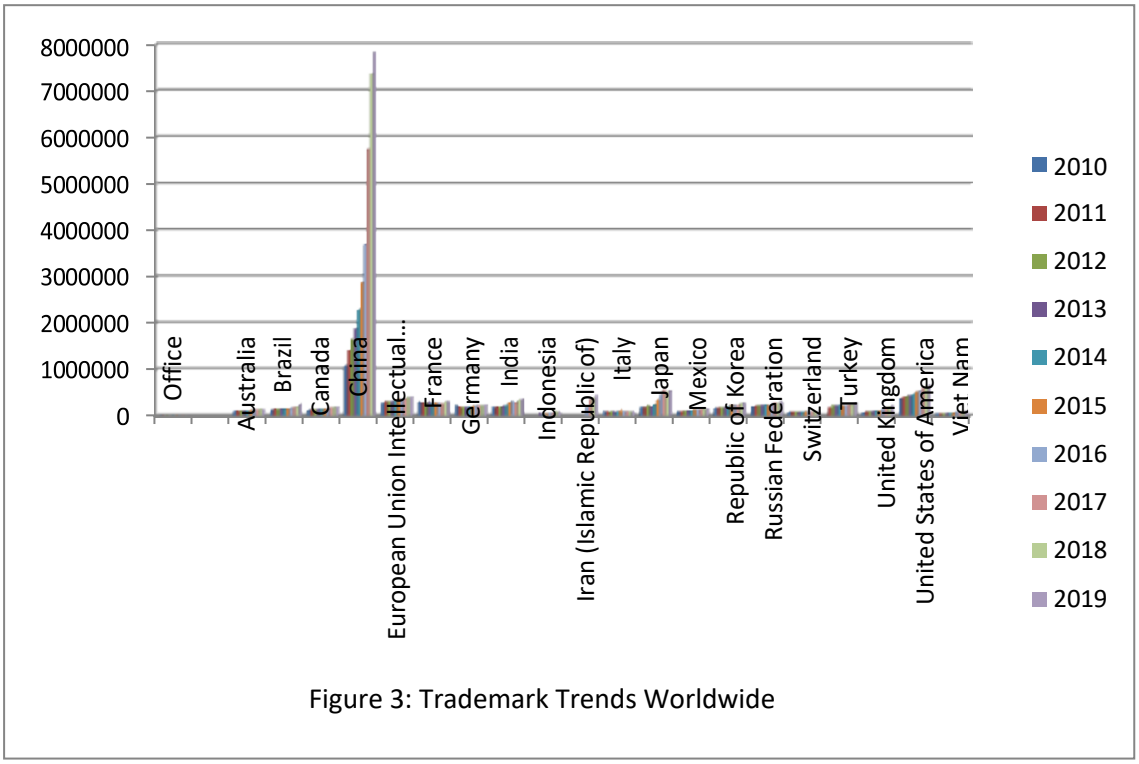


Figure 3: Trademark Trends Worldwide

It is noteworthy that U.S.A. was the country filing largest number of patents until 2019 when China took over the spot as removing U.S.A. from the spot after 40 years.

It is therefore imperative that we study the IPR regimes in countries in the top tier with respect to the number of filings to see how India can utilize the intellectual wealth she possesses in order to turn it into commercially viable IPR.

Recent amendments to the Patents Act, 1970 as well as the Trademarks Act, 1999 have smoothened the process, making the process of obtaining patent and trademark registration transparent and speedier than before. However, there still are challenges faced by practitioners as well as suggestions from the IPR community which could contribute towards streamlining the process further.

We begin with a comparative study of the key features of the Patents Act for India, U.S.A., E.U. and China and try to identify areas we can bring about a change in the corresponding areas. Following the comparison are suggestions on changes that can be made to the Trademark, Patents and Designs Act.

Criteria	EU	U.S.	China	India
Grace Period	Cannot file if made available publicly in any way before filing	One year grace if published in the year preceding application	Public disclosure in publications anywhere in the world destroys novelty, however, only public use or if made known public by other means outside China are not novelty destroying	Cannot file if made available publicly in any way before filing
Novelty, Utility, Inventive Step	Novelty, Inventive Step & Industrial applicability	Novelty, non-obvious and industrial applicability. No utility criteria for design and plant patents	Inventive (EU), non-obvious (U.S.A.) and industrial applicability	Novelty, Inventive Step & Industrial applicability
Publication	18 months from date of application	18 months from date of application	18 months from date of application	18 months from date of application. Early publication can be requested
What can be patented	Inventions excluding a. Discoveries, scientific theories and mathematical methods; (b) aesthetic creations; (c) schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers; (d) presentations of information	Invention or discovery of any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof	Numerous unstatutory categories like India	What cannot be patented u/s. 3
Minor changes and extension	Does not allow minor changes and extension post grant	Allows minor changes and extension post grant	Yes	Does not allow minor changes and extension post grant

Re-examination	Allows opportunity for hearing when refusing th e application.	Allows option for requesting re-examination after application has been refused	Allows option for requesting re-examination after application has been refused	No option for requesting re-examination after application has been refuse d Appeal is allowed to higher authority
Utility	No utility patents allowed	Allows for utility patents	Allows for utility patents	No utility patents allowed
Software Patent	Yes	Yes	Yes	Yes
Plant Patent	Yes	Yes	Yes	No
Time to Grant	2-3 years	2-3 years	2-3 years	4-5 years but shortening now
Infringement	National level per country wise	Infringement- speedy disposal with regular court system	Supreme Court (China) in January 2019 formed an appeals tribunal specifically for intellectual property cases.	IPAB Speed?
Outreach	-	Yes	Yes	Needs work
Technology Transfer with Universities And Academia	Yes	Yes- 409,000 scientific papers	Yes- 426,000 scientific papers	Lacking
Areas	Digital communication, medical technology, computer technology, electrical machinery, apparatus, energy, transport, measurement, pharmaceuticals, biotechnology, special machines, organic fine chemistry	NSF classified technology , angiosperms, genome editing, pharmaceutical products, arrangements or adaptations of instruments, computer systems based on specific computational models, aeroplanes, helicopters,	Mobile payments, mobile commerce, AI, electric vehicles, autonomous driving, e-retailing, drones	Electrical engineering , chemistry, mechanical engineering

Trademark Act Comparison

Criteria	EU	U.S.	China	India
Definition	Community Trade Marks (CTM). The CTM does not exclusively define a trademark or state what constitutes a trademark. A trademark includes a 'word mark'; and other marks consisting of numerals, letters, and signs for which the applicant does not claim any special graphic representation or colour.	Includes any word, name, symbol, or device, or any combination thereof	words, devices, letters, numerals, three-dimensional signs (shapes), color combinations, or a combination of all of the above.	'a device, brand, heading label, ticket, name, signature, word letter, numeral shape of goods, packaging or combination of colours or any combination thereof',
Non-Use	Similar to the test under the Community Trade Marks (CTM) of the European Union where the use should not be some mere symbolic use but actual and authentic	US law makes a difference between the actual use of a mark and the intent to use a mark. Registration can be applied for by producers for actual use of a mark as well as for bona fide intention of using a mark, the registration is not granted by the USPTO unless the actual use of the mark is shown and the use of this mark should be shown again after the 5th and 6th year and at the time of renewals in order to maintain the registration.	Any person may challenge trademark for non use after 3 years.	Registration of a trademark may be attacked on the grounds of non-use

Dilution	Mark need not be famous. It has to be known by substantial portion of population	If a trademark is well reputed and famous, the proprietor can forbid others from using the mark.	Well known trademarks. No special anti dilution laws in force	S. 29 prevents dilution of well known marks

Suggestions to make IPR Regime more efficient

Trademark Act

- Classification of goods and services (Nice classification) should be made more elaborate and specific. One way could be to synchronize it with the MSME Act and have three categories instead of two i.e. Manufacturing, Retail and Services. Classification also needs to be brought in sync with the current technology.
- Many marks with descriptive words are registered making it difficult for other honest and bona fide users.
- Currently, while filing, user affidavit is required for marks already in use while marks filed on proposed to be used basis do not require a user affidavit. However if the trademark application is within six months of use, it is not possible to obtain expenditure, revenues and profits to be included in the user affidavit. If the date of first use and date of application are within six months of each other, user affidavit may be waived.
- Notice of Opposition filed after the due date results in the application being held in limbo- not proceeding to registration and not being abandoned. These pending opposition matters due to filing delay must be disposed off promptly.

Patent Act

- Examination Report may be filed within 48 months of date of application. The time line is too vast and acts as a deterrent to the applicant. Time line may be shortened
- Plants are excluded from patentable subject matter as per Section
- However to prevent monopolization by one particular company from countries where plant patents are possible, a plant patent may be made possible with a Government body and a private applicant as co-owners and the government can then make the plant patent available at subsidized rates to farmers in need.
- PPH is currently only with Japan and that too for limited number of applications. We need to partner with more countries to implement PPH.
- The Act does not leave any room for errors. In U.S.A. for example, any delay. can be condoned with an appropriate petition, fees, timely hearing and disposal. In India, once due date has elapsed for filing request for examination report or for complete specification after provisional specification, there is no remedy.
- U.S.A. allows uploading proof of micro entity within two months after filing the application. A similar system should be implemented in India wherein upon undertaking to file the proof of start up entity or MSME, two months can be allowed to upload the document.
- Better outreach by IP India can be conducted to make people aware of IP rights
- Industry-academia partnerships should be fostered to increase patents.

Design Act

- Designs should be renamed as Design Patents as in U.S.A. and China. Part of the reason the afore-mentioned countries have a higher patent count is because a higher status is awarded to design registrations and hence there is a higher number of design applicants which contribute towards the total patent filings.
- Further in line with patents, the period of protection under Design Act can be increased to make it more “patent like” to the applicant. China offers 10 year protection, US offers 14 years and Japan 15 years for a design patent.

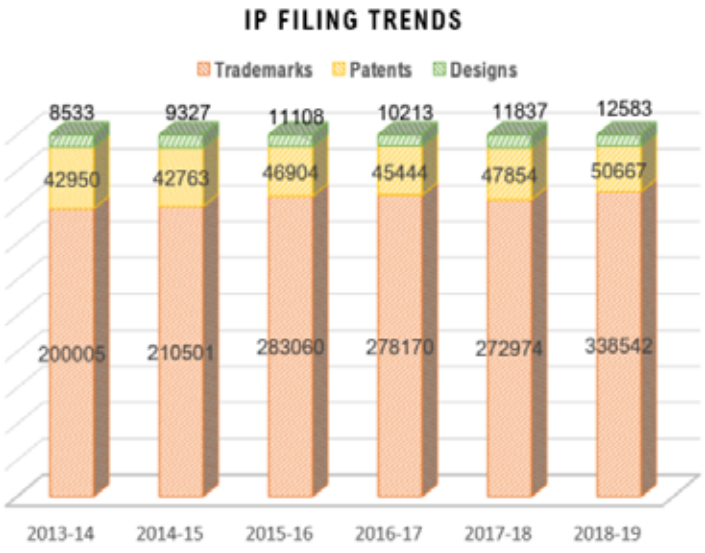
4.2 Presentation

Review of Intellectual Property Rights Regime in India

Adv.Shalini Menezes
GSInC Empanelled Patent Agent and Attorney

SimSim Advisory Pvt. Ltd.

India IP Filing Trends



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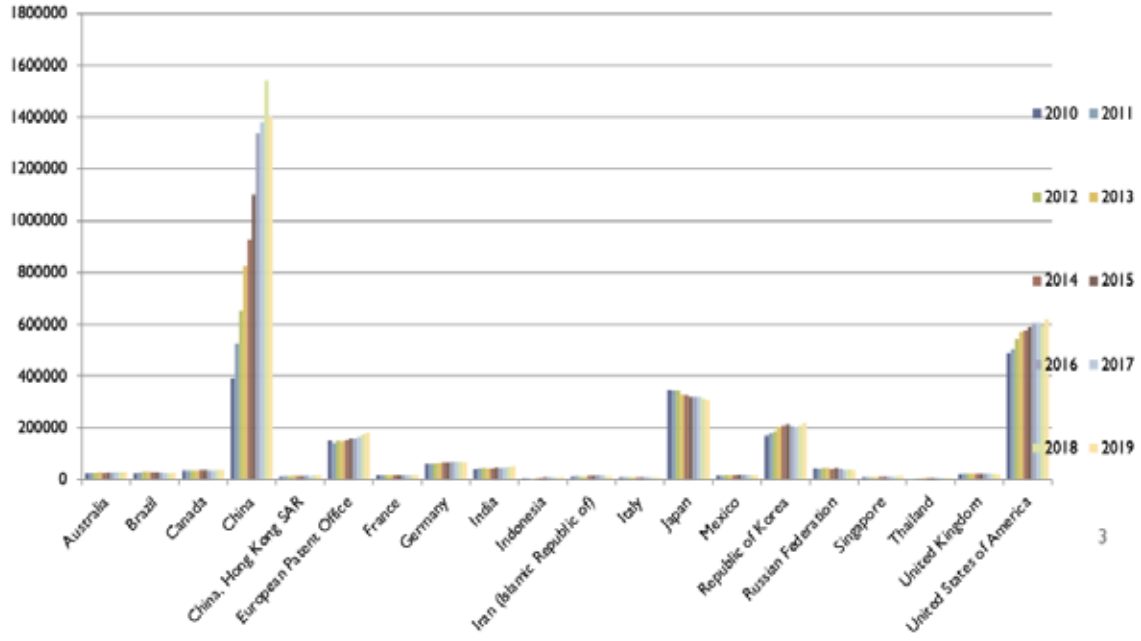
https://www.lexology.com/library/detail.aspx?G=c5d796fd-e8a0-4b2b-b352-1ad132bb5cca

Patent Filings -2010-2019



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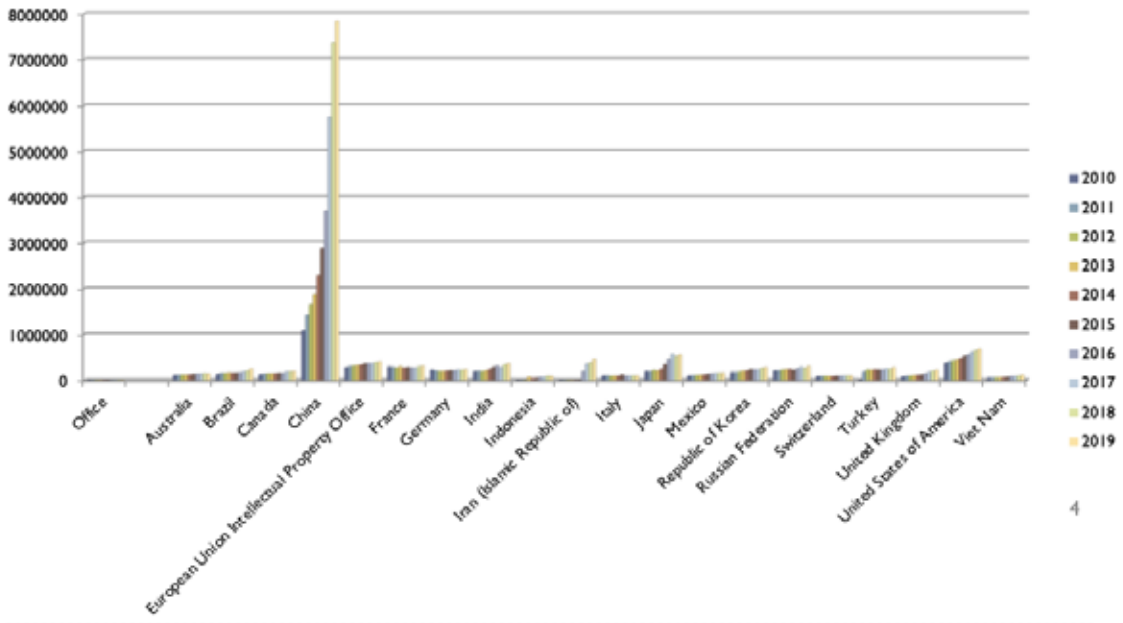
Trademark filings- 2010-2019



4

USA top contender for 40 years.....

- .....till China took top spot in 2019

- Points to Ponder

5

Compare EU, US, China and India

- Grace Period
- Novelty, Utility,
- Inventive Step
- Publication
- What can be patented
- Minor changes and extension
- Re-examination

- Utility
- Software Patent
- Plant Patent
- Time to Grant
- Infringement
- Outreach
- Technology Transfer with Universities & Academia
- Top areas of patent

5

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Suggestions

- Trademark Act
- Classification of goods and services (Nice classification)
- Many marks with descriptive words
- User affidavit
- Notice of Opposition

SimSim

Patents

- Examination Report time line
- Plant Patent
- PPH
- Petitions
- Micro entity proof
- Better outreach
- Industry-academia partnerships

7

Designs

- Rename
- Term of protection

5. Annexures

5.2 Annexure I – Provisional Patent Scheme

Virtual Innovation Register (VIR) provides young innovators an opportunity to register their ideas and source the required support to achieve the expected results. VIR functions as innovation souk where young innovators will display prototypes and directly talk to prospective buyers.

OBJECTIVES

The objectives of the policy are as follows, namely:

- To promote academic freedom and safeguard in creation of Intellectual Property
- To provide a comprehensive single window reference system for all Intellectual Property Rights issues relating to intellectual property generated during academic studies
- To safeguard the interest of creator of the Intellectual Property and provide fair distribution of returns accruing from the commercialisation of IPR
- To provide legal support, wherever necessary, to defend and protect the intellectual Property rights obtained by the Institute against any infringement/ unauthorised use
- To create an environment for acquiring new knowledge through innovation and research, compatible with the educational mission of the Institute

An applicant under this scheme shall be eligible for a support of upto Rs.10,000 for filing provisional patent application through the aforesaid patent agents/ firms.

PROCEDURE FOR APPLYING UNDER THE SCHEME

Below mentioned is the procedure for applying under The Virtual Innovation Register (VIR)

01

An individual or a registered entity (partnership/ limited liability partnership/ private limited company) shall submit an application through the portal http://goastateinnovationcouncil.com/virtual-innovation-register

02

An innovative shall be from the following sectors which are not absolute but include:

Agri- Tech | Digital Media | Healthcare Tech | Manufacturing | ITES

5.3 Annexure II – Prototyping Grant Scheme

5.4 Annexure III – Goa's Young Innovators Award

Goa's Young Innovator's Award 2018-19

5.5 Annexure IV – Goa Waste Management Hackathon

GWMC
GOA WASTE MANAGEMENT CORPORATION

GWMH

Goa State Innovation Council

GOA WASTE MANAGEMENT HACKATHON 2020

Goa Waste Management Hackathon 2020 is an initiative of Government of Goa to provide students a platform to solve challenges faced in Solid Waste Management and Disposal in Goa and thus incubate the culture of product/process innovation with problem solving mindset. The hackathon is open for students from colleges affiliated with Goa University which includes students from Engineering, Arts, Science, Commerce, Polytechnic, ITI & Home Science colleges. The selected projects will get an opportunity to implement their projects with the support of Goa Waste Management Corporation.

CHALLENGES FACED IN SOLID WASTE MANAGEMENT AND DISPOSAL

Segregation Of Dry Waste & Reduction/ Elimination Of Moisture From RDF(Refuse Derived Fuel)

Removal Of Solid Waste From Surface Water Bodies Like Rivers, Lakes, Ponds

Disposal Of Tubelights, LEDs and CFL Bulbs In Scientific Manner

Disposal Of Sanitary Pads And Diapers In Scientific Manner

THE SUBMITTED PROJECTS WILL BE EVALUATED ON THE BASIS OF

Problem Identification & Ideation

Innovation & Design

Sustainability

ACTIVITIES AT HACKATHON

1. Waste Management Workshop:
A workshop on Solid Waste Management and disposal

2. Design Thinking Workshop:
The Workshop will nurture a creative approach by engaging in dynamic discussion, relevant reading and team exercises in a systematic, human-centred approach

3. Developing Ideas:
The Participants will brainstorm and come up with solutions

4. Mentorship Session:
Mentors will assist the participants in developing their ideas

5. Business Development Workshop:
Once the participants are very clear about their Ideas, during the Day 2 participants will attend a Business Development workshop to explore commercialization of their Solutions

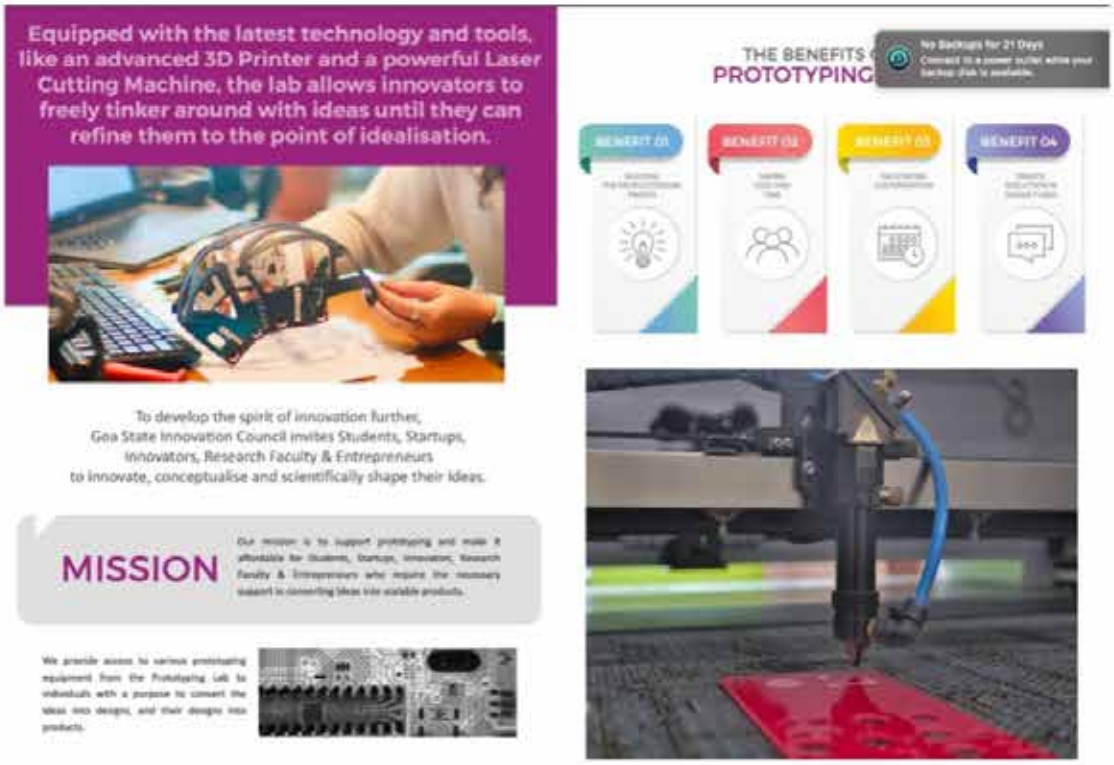
6. Pitch Session:
The Participants will be given an opportunity to pitch their Solutions

Submit project through online application by 4th Feb 2020

The Hackathon finals will be held on 18th & 19th of Feb 2020 at Don Bosco College of Engineering, Fatorda

Apply at www.goastateinnovationcouncil.com/goa-waste-management-hackathon

5.6 Annexure V – Prototyping Lab



Photograph: 15.1: Visit of the Department related to Parliamentary Standing Committee on Commerce to Goa from 21st to 23rd January 2021 on the subject "Review of Intellectual Property Rights regime in India

Photograph: Shri Jose Manuel Noronha, Chairman, Goa State Innovation Council addressing the Parliamentary Standing Committee

Photograph: Shri Levinson Martins, Director, Department of Science, Technology & Waste Management, Government of Goa addressing the Parliamentary Standing Committee

Photograph: Fr. Kinley DCruz addressing the Parliamentary Standing Committee

Photograph: Shri V Vijayasai Reddy, Chairman of Parliamentary Standing Committee

Photograph: Dignitaries present at the Parliamentary Standing Committee

16

THE WAY FORWARD

Chapter 16
THE WAY FORWARD

"If you can't fly then run, if you can't run then walk, if you can't walk then crawl, but whatever you do you have to keep moving forward."

- Martin Luther King Jr

Rapid Prototyping Lab

To help innovators from all walks of life transform their ideas into tangible models or prototypes, Goa State Innovation Council has established its state-of-the-art Prototyping Lab at its premises, Goa State Innovation Council Secretariat. The prototyping lab will be upgraded with the latest technology and will include more sophisticated equipment for prototyping the most complex of designs with perfect precision.

Prototyping Support

The Scheme of Prototyping Grant will support young Innovators and Startups with the necessary financial support to create the Ideas into scalable prototypes required for Innovation. The Innovators will also be exposed to prototyping lab at the Goa State Innovation Council Secretariat.

Intellectual Property Rights Support

Taking its IPR training and support initiatives a notch higher, Goa State Innovation Council would soon be adding capabilities to provide dedicated support in provisional patents filings to innovators from Goa. The new IPR handholding initiative would help various innovators and VIR registrants in better organising and submitting all IPR-related documents with accuracy.

17

FINANCE AND ACCOUNTS OF THE COUNCIL

Chapter 17
UC & GRANTS

"I love what I do and know I'm good at it.
It helps that I can get financial support along the way."

- Michelle Carter

Funds received from the Government of Goa

Table 15.1: Grants and Funding account of the Council

Sr. No.	Date	Amount	Order No.
1	22/07/2021	Rs 5,00,000.00	3-191-2011/14-15/STE-DIR/GSInC/Part/398
2	22/07/2021	Rs 20,00,000.00	3-191-2011/14-15/STE-DIR/GSInC/Part/399
3	23/11/2021	Rs 5,00,000.00	3-191-2011/14-15/STE-DIR/GSInC/Part/813

Table 15.2: Utilisation Certificate of the Grant

Sr. No.	Receipt No	Amount	Order No
1	9566	Rs 5,00,000.00	3-191-2011/14-15/STE-DIR/GSInC/Part/398
2	9603	Rs 20,00,000.00	3-191-2011/14-15/STE-DIR/GSInC/Part/399
3	9660	Rs 5,00,000.00	3-191-2011/14-15/STE-DIR/GSInC/Part/813

Goa State Innovation Council Budget

1. Secretariat of Goa State Innovation Council

The grants are utilised for

i. Salaries for the staff utilised for the purpose of performing functions of the Secretariat for the Goa State Innovation Council
ii. Stationery, Photocopying and other administrative expenses.
iii. Expenses towards refreshment during meeting and hire charges for vehicles, etc
iv. Purchase of Computer, Photocopying machine and other IT related items.
v. Advertisements, honorarium for members, etc.

Sr. No.	Item of Expenditure	Support per annum (Rs.)
1.	Salary	₹ 6,38,880
2.	Travel	₹ 2,00,000
3.	Marketing and promotion of initiatives of the council	₹ 1,00,000
4.	Networking and meetings, Administrative Expenses, Miscellaneous & Contingencies	₹ 61,120
	TOTAL	**₹ 10,00,000**

2. Key Initiatives of Goa State Innovation Council

Goa State Innovation Council promotes Innovation in the State through the various initiatives that will help achieve the objectives of the council.

Heads Of Expenditure	Estimate (In INR)	
1. Promoting Virtual Innovation Register		
Website Development & Maintenance		₹ 50,000
Virtual Innovation Register Promotions / Sessions		₹ 1,50,000
Intellectual Property Rights (IPR) Provisional Specifications (30 nos)	₹ 10,000	₹ 3,00,000
2. Multi-activity programs to promote innovation		
Boot Camp On Innovation In Institutes (Total 20 Bootcamps) Per Bootcamp	₹ 25,000	₹ 5,00,000
Faculty Development Program (Total 2 sessions) Training Promotional Expenses And Travelling Mementos To Jury Organisation Of The Event Food And Beverages Handholding Support Cost	 ₹ 2,00,000 ₹ 20,000 ₹ 20,000 ₹ 1,40,000 ₹ 20,000	₹ 4,00,000
Women Centric Workshop (Total 3 sessions) Promotional Expenses And Travelling Mementos To Jury Recognition To Participants Organisation Of The Event Handholding Support Cost	 ₹ 50,000 ₹ 10,000 ₹ 10,000 ₹ 10,000 ₹ 10,000	₹ 1,00,000
Innovation Awareness Camps – Rural (Total 30 Camps) Per Camp	₹ 10,000	₹ 3,00, ,000
Intellectual Property Rights Training (Total 2 sessions) Training Promotional Expenses And Travelling Mementos To Jury Organisation Of The Event Handholding Support Cost	 ₹ 50,000 ₹ 10,000 ₹ 10,000 ₹ 10,000 ₹ 10,000	₹ 1,00,000

Heads Of Expenditure	Estimate (In INR)	
GSInC Prototyping Lab Training Sessions Consumable Equipments Handholding Support Cost	 ₹ 2,50,000 ₹ 1,50,000 ₹ 1,00,000	₹ 5,00,000
Documentation & Publication for Innovations in Goa		₹ 1,00,000
3. Competitions to Promote Innovation		
Most Innovative Student projects Competition – BE Prize Money First Prize Second Prize Encouragement Prizes (5 nos) Promotional Expenses And Travelling Mementos To Jury Organisation Of The Event Miscellaneous / Contingency	 ₹ 20,000 ₹ 10,000 ₹ 25,000 ₹ 50,000 ₹ 25,000 ₹ 1,50,000 ₹ 20,000	₹ 3,00,000
Most Innovative Student projects Competition – ASC Prize Money First Prize Second Prize Encouragement Prizes (5 nos) Promotional Expenses And Travelling Mementos To Jury Organisation Of The Event	 ₹ 10,000 ₹ 5,000 ₹ 10,000 ₹ 10,000 ₹ 10,000 ₹ 50,000	₹ 1,00,000
Miscellaneous		₹ 1,00,000
Goa's Young Innovators Award Prize Money (2 Categories) First Prize (2 nos) Second Prize (2 nos) Third Prizes (2 nos) Promotional Expenses And Travelling Mementos To Jury Organisation Of The Event Miscellaneous / Contingency	 ₹ 40,000 ₹ 20,000 ₹ 10,000 ₹ 40,000 ₹ 15,000 ₹ 1,50,000 ₹ 25,000	₹ 3,00,000

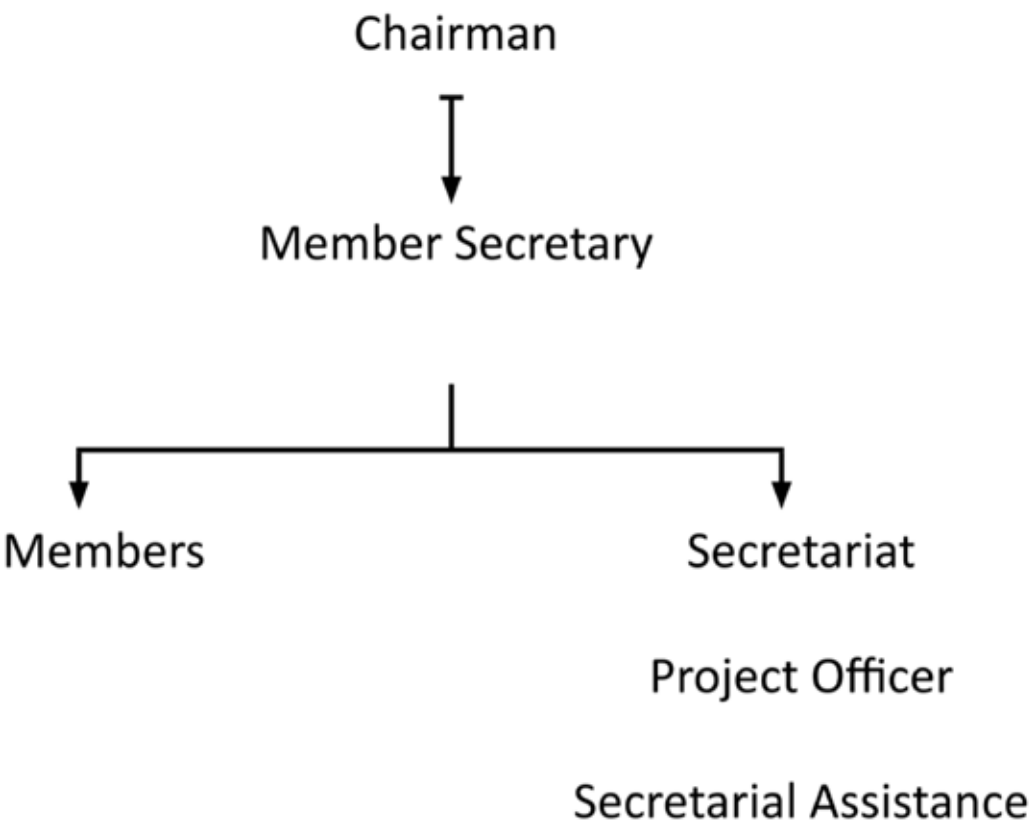
Heads Of Expenditure	Estimate (In INR)	
Goa's Young Innovators Award School Sensitisation Workshop (Total 40 Sessions)	₹ 10,000	₹ 4,00,000
Orientation Program for School Teachers (North & South Goa) Promotional Expenses And Travelling Mementos To Jury Recognition To Participants Organisation Of The Event Handholding Support Cost	 ₹ 50,000 ₹ 25,000 ₹ 25,000 ₹ 50,000 ₹ 50,000	₹ 2,00,000
Miscellaneous		₹ 1,00,000
TOTAL		**₹ 40,00,000**

18

ANNEXURE

Chapter 18
ANNEXURE

ANNEXURE 01 – The Organizational Chart



Photograph: Secretariat of Goa State Innovation Council

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