

# 2019

ANNUAL REPORT





**SHRI JOSE MANUEL NORONHA**  
Chairman



## MESSAGE FROM CHAIRMAN

The Council is pleased to release this first Annual Report of the activities undertaken during the year 2018-19. The Council which had laid out various targets to be achieved during the year has surpassed all its goals and we are sure that this will lead to creating the right ecosystem for budding innovators to create new products as well as better ways of doing work.

With a holistic view of nurturing the innovation culture and enriching the start-up ecosystem in the State of Goa, GSInC led various activities to take the spirit of innovation and entrepreneurship down to the grass-root level. From start-up bootcamps to sensitisation workshops on STEM education across schools to training programs on Intellectual Property Rights, the dedicated GSInC team has successfully conducted 60+ events in the State of Goa during the year under review.

One of the core objectives of GSInC is to build a conducive culture for innovative thinking and cultivating a spirit of entrepreneurship among the people of Goa. Additionally, GSInC is focused on creating an agile, responsive and future-ready start-up infrastructure and I am glad that Goa has taken significant steps in that direction.

I am confident that the initiatives taken by GSInC during FY 2018-19 will be built upon in the coming years, facilitating a thriving start-up and innovation culture in the state.

A handwritten signature in blue ink, which appears to read "J. Manuel", written over a horizontal line.

**SHRI JOSE MANUEL NORONHA**



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# 01

## INTRODUCTION

# 1.1

## GENERAL INTRODUCTION

The Goa State Innovation Council was established by the Directorate of Science and Technology, Government of Goa, under the aegis of National Innovation Council.

The Government of India's vision to make India self-reliant, and emerge as one of the strongest economies in the world, with a focus on inclusive, sustainable development for all is the genesis of National Innovation Council that seeks to foster the spirit of innovation and entrepreneurship among all classes, groups and communities in India.

The Goa State Innovation Council is responsible for carrying out the National Innovation Council's mandate of inclusive growth and sustainable development in the State of Goa. To achieve this, The 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.

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
- 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

## 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: Staff employed in the Council with name and designation**

SR. NO.	NAME OF THE EMPLOYEE	DESIGNATION
1	Mr. Sudip Faldesai	Project Officer
2	Mrs. Valencia Fernandes	Secretarial Assistant

The Organisational Chart is attached in Annexure I.

## 02

CONSTITUTION  
OF THE COUNCIL



## 2.1

# CONSTITUTION OF THE COUNCIL MEMBERS

Chairman:

SHRI JOSE MANUEL NORONHA

Chairman, Goa Public Service Commission,  
Government of Goa

Member:

SHRI VIVEK KAMAT

Director, Directorate of Technical Education,  
Porvorim, Goa

Member:

DR. KRUPASHANKARA MS

Principal, Goa College of Engineering,  
Farmagudi

Member:

DR. NEENA PANANDIKAR

Principal, Don Bosco College of Engineering,  
Fatorda

Member:

DR. MRIDULA GOEL

Faculty, BITS Pilani K.K. Birla Goa Campus,  
Goa

Member:

SHRI KUNAL UPADHYAY

CEO, Centre for Innovation Incubation and  
Entrepreneurship, IIM-A

Member:

PROF. RAGHUVeer VERNEKAR

Nominee, Goa Chambers of Commerce and  
Industry, Panaji, Goa

Member:

DR. KAUSTUBH PRIOLKAR

Faculty,  
Goa University

Member:

SHRI D. S. PRASHANT

CEO, Forum for Innovation Incubation Research &  
Entrepreneurship, Fatorda, Goa

Member:

SHRI DEEPAK PARAB

Member Secretary, Goa State Council for Science  
and Environment, Saligao, Goa

Member Secretary:

SHRI LEVINSON MARTINS

Director, Department of Science and Technology,  
Govt. of Goa

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<br>Chairman  | Chairman |
| 2) Director,<br>Birla Institute of Technology & Science,<br>Zuarinagar, Sancoale or his nominee  | Member   |
| 3) Dr. Neena Panandikar<br>Principal,<br>Don Bosco College of Engineering, Fatorda Goa   | Member   |
| 4) Shri Kunal Upadhyay<br>CEO<br>Centre for Incubation Innovation & Entrepreneurship<br>Indian Institute of Management<br>Ahmedabad, Gujarat | Member   |
| 5) Director,<br>Directorate of Technical Education<br>Government of Goa,<br>Porvorim Goa   | Member   |
| 6) Principal,<br>Goa Engineering College Farmagudi, Ponda Goa  | Member   |

7) Shri Kaustubh Priolkar Department of Physics Goa University	Member
8) GCCI Nominee	Member
9) Shri D. S. Prashant General Manager Centre for Incubation & Business Acceleration Verna – Goa	Member
10) 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:

- 0.1) Support the Government to promote innovation in the State
- 0.2) Encourage young talent in Goa University, Colleges, Higher
- 0.3) Education Institute (HEI's) Medium and Small scale Industries (MSME) and R & D Industries etc.
- 0.4) Map opportunities for innovation in the State
- 0.5) Identify and reward talent in innovation and disseminate success stories.
- 0.6) Organise seminars, workshops, lectures on innovation and create State Innovation Portal to educate the stake holders
- 0.7) Help create innovation eco system
- 0.8) Organise risk capital
- 0.9) Prepare an Innovation Road Map for the State of Goa for the period of 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



## 3.1

# MEETINGS OF THE COUNCIL

During the year under the report, the GSINC held eight 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 the meeting during the year under the report**

Sr. No.	Sr. No. of the Meeting	Date of Meeting	Venue
1	06th	02/05/2018	Don Bosco College of Engineering, Fatorda
2	07th	26/07/2018	Goa Public Service Commission, Panaji
3	08th	07/09/2018	Don Bosco College of Engineering, Fatorda
4	09th	23/11/2018	Don Bosco College of Engineering, Fatorda
5	10th	06/01/2019	Don Bosco College of Engineering, Fatorda
6	11th	28/02/2019	Don Bosco College of Engineering, Fatorda

## 3.2

### EXTRACTS OF MINUTES OF MEETING OF COUNCIL HELD DURING THE YEAR UNDER REPORT

#### 6th MoM

MINUTES OF THE MEETING OF GOA STATE INNOVATION COUNCIL HELD AT DON BOSCO COLLEGE OF ENGINEERING CONFERENCE HALL ON 2nd MAY, 2018 AT 8.30 A.M

The following members were present at the meeting:

**Table 3.2.1: GSInC members present for the meeting**

SR. NO.	MEMBERS PRESENT	DESIGNATION
1	SHRI JOSE MANUEL NORONHA Chairman, Goa Public Service Commission, Panaji, Goa	Chairman
2	SHRI VIVEK KAMAT Director, Directorate of Technical Education, Porvorim, Goa	Member
3	DR. MRIDULA GOEL Faculty Incharge, Center for Innovation Incubation & Entrepreneurship (CIIE) BITS Pilani K K Birla Goa	Member
4	DR. NEENA PANANDIKAR Principal, Don Bosco College of Engineering, Fatorda Goa	Member
5	PROF. RAGHUVeer VERNEKAR Nominee, Goa Chamber of Commerce and Industry, Panaji - Goa	Member
6	SHRI D. S. PRASHANT General Manager, Centre for Incubation & Business Acceleration, Verna Goa	Member
7	SHRI LEVINSON MARTIN Director, Department of Science & Technology, Government of Goa, Saligao - Goa	Member Secretary

Shri Kunal Upadhyay, Dr. Vinayak Shet and Shri Kautsubh Priolkar could not attend the meeting and were granted leave of absence. Thereafter, the Chairman welcomed the members of the State Innovation Council for the meeting.

1. At the outset, the Minutes of the meeting held on 18th December 2018 were read and confirmed after which Shri Sudip Faldesai presented the action taken report which was noted by the members. He explained that during these camps, a basic survey detailing the interest for Entrepreneurship amongst the attendees was undertaken and of one thousand four hundred and forty-one students from fifteen colleges, six hundred and fifty-five students showed interest in entrepreneurship. It was also decided that the Entrepreneurship Development Institute of India (EDI), Ahmedabad had designed a very appropriate methodology for conducting a survey from amongst students to understand their interest in Entrepreneurship and it was further decided that such a system be obtained from EDI and introduced during the next survey cycle of the Council. The Chairman also directed the Project Officer to work out the costs per student for the conduct of such Bootcamps so that a proper indicator is established. It was further suggested that as part of the Bootcamp training exercise, preparations for an elevator pitch should also be introduced.

2. The Project Officer presented the features of Goa State Innovation Council website and the Virtual Innovation Register and also explained the process of registering New Ideas, Existing Startups and Stakeholders on the platform. The members suggested forming a Committee to approve the listing request of New Ideas and Existing Startups on Virtual Innovation register within a specified timeline. The Project Officer was asked to prepare the list of potential panel members with their expertise and share the list with the Goa State Innovation Council members. The Chairman directed the Project Officer to meet the Director of Science & Technology and finalise the drafting of schemes for Bootcamp, Faculty Development Programmes, Student Project Competition and Intellectual Property. While discussing the grants that may be payable to persons to apply for Intellectual Property, it was discussed and decided that the council could consider reimbursing only the fees charged by the Government as patent fees. It was also discussed that all other professional fees would have to be borne by the holder of the Intellectual Property. It was decided to launch the Goa State Innovation Council website by the end of May 2018 in consultation with the office of the Chief Minister.

3. The details of Chief Minister's Startup Challenge were discussed. It was decided that the Incubator established by Forum for Innovation, Incubation Research and Entrepreneurship (FIIRE), at Don Bosco College of Engineering, Fatorda, Goa host the event. The Goa State Innovation Council and Economic Development Corporation (EDC) would provide Ten Lakhs Rupees each for conducting the competition. Council members suggested creating mass awareness about the Chief Minister's Startup Challenge by advertising using various print and digital media.

4. While discussing about Faculty Development Programmes (FDP), the Chairman suggested that faculties will be available only for short duration during the end of term/ semester and the programmes should be conducted effectively in this short duration of time. The Chairman suggested conducting two FDP's in a year. It was also approved to engage the services of a content writer for drafting the Goa State Innovation Council

resource material and to have a digital copy of the same for circulation amongst the beneficiaries. Dr. Mridula Goel suggested conducting a Women's Entrepreneurship Camp at BITS Pilani, Zuarinagar which was approved by all members.

5. It was discussed that a Tinkering Laboratory (to introduce young children to the facets of Science, Technology, Engineering and Mathematics (STEM)) be established at an Engineering College and students of various schools be invited to undergo training programmes at the Laboratory. After a detailed discussion, it was decided to establish the Tinkering Laboratory at Don Bosco College of Engineering, Fatorda for an approximate cost of Rupees five lakhs and grants be provided to establish this laboratory from the Goa State Innovation Council funds.

6. It was decided that the Annual Report of the activities of the Council for the year 2017-18 be prepared and submitted to the Director, Science and Technology to be presented to the Assembly.

7. The meeting ended with the vote of thanks.

**7th MoM**

MINUTES OF THE MEETING OF GOA STATE INNOVATION COUNCIL HELD AT GOA PUBLIC SERVICE COMMISSION CONFERENCE HALL ON 26th JULY, 2018 AT 4.00 P.M

The following members were present at the meeting:

**Table 3.2.2: GSInC members present for the meeting**

SR. NO.	MEMBERS PRESENT	DESIGNATION
1	SHRI. JOSE MANUEL NORONHA Chairman, Goa Public Service Commission, Panaji, Goa	Chairman
2	DR. V. N. SHET Principal, Goa College of Engineering, Farmagudi	Member
3	DR. MRIDULA GOEL Faculty In charge, Centre for Innovation Incubation & Entrepreneurship (CIIE) BITS Pilani K K Birla Goa	Member
4	SHRI. D. S. PRASHANT General Manager, Centre for Incubation & Business Acceleration, Verna, Goa	Member
5	SHRI. DEEPAK PARAB Member Secretary, Goa State Council for Science & Environment, Saligao	Member
6	SHRI. LEVINSON MARTINS Director, Department of Science & Technology, Government of Goa, Saligao – Goa	Member Secretary

Attended by Smt Rynella Souza (Representative from DS&T)

Shri Vivek Kamat, Shri Kunal Upadhyay, Dr. Neena Panandikar, Prof Raghuveer Vernekar and Shri Kautsubh Priolkar could not attend the meeting and were granted leave of absence. Thereafter, the Chairman welcomed the members of the State Innovation Council for the meeting.

1. At the outset, the Minutes of the meeting held on 02 May 2018 were read and confirmed after which the plan of Orientation Programme was discussed. The venues were finalized as Sanskruti Bhavan, Department of Arts & Culture on 8th August 2018 for North Goa Programme and as Ravindrabhavan, Margao on 9th August 2018 for South Goa Programme. The objective of the orientation programme is to train and guide the Science teachers on Innovation, Creativity and Startups. Shri Jose Manuel Noronha was requested to be the keynote speaker. A schedule was prepared for the programme as follows:

**Table 3.2.3: Schedule for Orientation Program for school teachers**

SR. NO.	TIME	TOPIC	SPEAKER
1	10.00-10.15	Invite guests on dais Welcome attendees and guests on dais Bouquet to Chief Guest Lighting of Lamp Guests on dais move to audience seat	Shri. Tushar Sawant
2	10.15-10.45	Introduction of Speaker. What is Innovation?	Shri. Jose Manuel Noronha Chairman - GPSC, GSInC
3	11.00-11.15	Introduction of speaker Understanding Creativity	Shri. Raghuveer Vernekar Chairman, GCCI - Edu. Com.
4	11.15-11.30	Introduction of speaker Introduction to INSPIRE- MANEK Award	Shri. Nagraj Honnekeri Director, SCERT
5	11.30-11.45	Introduction of speaker How I set up my Innovative company	Shri. Gajanan Nagarsekar Founder, Kallows Engg. Pvt. Ltd
6	11.45-12.00	Introduction of speaker Idea Generation by students	Smt. Suwarna Surlekar Founder, Codewell Computers
7	12.00-12.15	Introduction of speaker Intellectual Property- Today's need	Smt. Shalini Menezes Founder, Sim Sim Law Consultants
8	12.15-12.30	Introduction of speaker Action Plan - School Student Innovative Project Competition (5th -7th; 8th-10th)	Shri. D.S. Prashant Member, GSInC
9	12.30-12.45	Introduction of speaker Feedback & Vote of thanks	Shri. Sudip Fal Dessai Project Officer, GSInC



2. The schedule and topics conducted during the Bootcamps were discussed during the meeting. A basic survey detailing the interest for entrepreneurship amongst the attendees was undertaken and it was observed that one thousand and forty-one students were interested in entrepreneurship from the total number of one thousand nine hundred and thirty-seven students from twenty colleges.
3. The Project Officer presented the features of Goa State Innovation Council website and the Virtual Innovation Register and also explained the process of registering New Ideas, Existing Startups and Stakeholders on the platform. It was also decided to empanel IP facilitator to support Intellectual Property as envisaged by the council.
4. The proposed Faculty Development Programme scheduled for 17th, 18th, 24th & 25th August 2018 at BITS Pilani, Goa Campus was discussed. Dr. Mridula Goel presented the format of the programme. It was suggested to send an invite to all the colleges to nominate faculties from the Department of Science & Technology, Government of Goa.
5. Shri D S Prashant presented the details on TIMEIS - Idea to Investment Entrepreneurship Workshop scheduled on 10th August 2018 at Hotel Marriott, Goa and it was decided that Goa State Innovation Council would support in conducting the programme.
6. The meeting ended with the vote of thanks.

**8th MoM**

MINUTES OF THE MEETING OF GOA STATE INNOVATION COUNCIL HELD AT DON BOSCO COLLEGE OF ENGINEERING CONFERENCE HALL ON 7TH SEPTEMBER, 2018 AT 10.00 A. M.

The following members were present at the meeting:

**Table 3.2.4: GSInC members present for the meeting**

SR. NO.	MEMBERS PRESENT	DESIGNATION
1	SHRI. JOSE MANUEL NORONHA Chairman, Goa Public Service Commission, Panaji, Goa	Chairman
2	SHRI. VIVEK KAMAT Director, Directorate of Technical Education, Porvorim, Goa	Member
3	DR. V. N. SHET Principal, Goa College of Engineering, Farmagudi	Member
4	DR. NEENA PANANDIKAR Principal, Don Bosco College of Engineering, Fatorda	Member
5	PROF. RAGHUVeer VERNEKAR Nominee, Goa Chambers of Commerce and Industry, Panaji, Goa	Member
6	DR. KAUSTUBH PRIOLKAR Faculty, Goa University	Member
7	SHRI. D. S. PRASHANT General Manager, Centre for Incubation and Business Acceleration, Verna, Goa	Member
8	SHRI. DEEPAK PARAB Member Secretary, Goa State Council for Science and Environment, Saligao, Goa	Member
9	SHRI. LEVINSON MARTINS Director, Department of Science and Technology, Govt. of Goa	Member Secretary

Dr. Mridula Goel and Shri Kunal Upadhyay could not attend the meeting and were granted leave of absence.

Thereafter, the Chairman welcomed the members of the State Innovation Council for the meeting.

1. At the outset, the minutes of the meeting held on 26th July, 2018 were read and confirmed after which the agenda of the meeting was discussed.

2. The status of the Orientation Programme conducted for the school teachers from North Goa and South Goa was presented. A total number of three hundred and fifty teachers attended the programme from various schools. The feedback forms were circulated to the teachers and the teachers are expected to submit the feedback form by 15th September, 2018. The council members were informed about the plan to organise an innovative project competition for the students in two categories i.e. 1. from class V to Class VII and 2. from Class VIII to Class X. It was also suggested to name the competition as Goa's Young Innovator Award. It was decided to make a proposal to the Department of Science and Technology, Government of Goa to sanction funds for the conduct of the competition.

It was further decided to train and mentor the winners and selected innovations and motivate them to participate for the Inspire Award – Manak Scheme. It was also suggested by the council to collaborate with the Government to promote Innovation and Creativity among girl students through the Beti Bachao Beti Pado Abhiyan. It was proposed and accepted to organise the Student Project competition by GCCI Education Committee along with Directorate of Technical Education for students from Engineering colleges in Goa.

3. The status of the Faculty Development Programme conducted at BITS Pilani, Goa Campus on 18th, 24th and 25th August, 2018 was presented. Thirty-two faculties from Engineering and Science Colleges and Polytechnics attended the programme. The various topics covered in the Faculty Development Programme was informed to the council. An action plan of organising an advanced Faculty Development Programme with the objective to train for supporting student projects along with a competition was proposed. It was suggested to conduct the competition in the month of May 2019. Director of Technical Education suggested conducting a Faculty Development Programme in association with Directorate of Technical Education specifically for Engineering and Polytechnic teachers.

4. The status of the Bootcamps conducted by Goa State Innovation Council was presented.

A basic survey detailing the interest towards entrepreneurship and startup as a career option was undertaken and it was observed that one thousand and one hundred fourteen students were interested in establishing a startup from amongst two thousand forty-seven students from twenty-two colleges who attended the same.

5. The registrations on Virtual Innovation Register was discussed in details. It was observed that from the total user registration of eighty-seven, New Ideas were sixty-five and Startups were twenty-two. The Council decided to conduct an Orientation Programme for the users registered under New Ideas to assess their support requirements and provide inputs on patenting the idea. It was decided to conduct various

programmes to promote Goa State Innovation Council website on social media to increase the website visitors.

6. The financial status was presented and it was brought to the notice of the council that the balance grant of Rs. 1,69,947/- from instalment II 2017-2018 has to be spent to provide Utilization Certificate. The council decided to spend the grant on buying office equipment, stationary & office furniture.

7. It was proposed to pay a sitting fee of Rs 2,000/- per sitting for Non-Official members of Goa State Innovation Council. After deliberations, the proposal was accepted and it was decided to pay this fee with effect from 01.04.2018.

8. The meeting ended with the vote of thanks.

## 9th MoM

MINUTES OF THE MEETING OF GOA STATE INNOVATION COUNCIL HELD AT DON BOSCO COLLEGE OF ENGINEERING, CONFERENCE HALL ON 23rd NOVEMBER, 2018 AT 09.00 A. M.

The following members were present at the meeting:

**Table 3.2.5: GSInC members present for the meeting**

SR. NO.	MEMBERS PRESENT	DESIGNATION
1	SHRI. JOSE MANUEL NORONHA Chairman, Goa Public Service Commission, Panaji, Goa	Chairman
2	DR. KRUPASHANKARA MS Principal, Goa College of Engineering, Farmagudi	Member
3	DR. NEENA PANANDIKAR Principal, Don Bosco College of Engineering, Fatorda	Member
4	DR. MRIDULA GOEL Associate Professor, Department of Economics, BITS Pilani – Goa Campus	Member
5	PROF. RAGHUVeer VERNEKAR Nominee, Goa Chambers of Commerce and Industry, Panaji, Goa	Member
6	DR. KAUSTUBH PRIOLKAR Faculty, Goa University	Member
7	SHRI. D. S. PRASHANT CEO, Forum for Innovation Incubation Research & Entrepreneurship, Fatorda, Goa	Member
8	MR. NANDA NAIK Department of Science & Technology	Invitee

Shri Levinson Martins, Shri Vivek Kamat, Shri Kunal Upadhyay, and Shri Deepak Parab 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 7th September 2018 were read and confirmed after which the agenda of the meeting was discussed.

2. Project Officer informed the council that the Expression of Interest for Empanelment of Patent Attorney was published in the daily and the council website. The following applications were received:

**Table 3.2.6: List of applications received towards EOI for Empanelment of Patent Attorney**

SR. NO.	COMPANY
1	Shalini Menezes (Goa)
2	Gautami Raiker - LawMate.in (Goa)
3	Dr. Sudhir Ravindran - Altacit Global (Chennai, Bangalore Coimbatore, Cochin, Hyderabad)
4	Sandeep Aggarwal - Adastra IP PVT LTD. (Gurugram)
5	Akshata Mamledar(Goa)
6	IPR Arena (Bangalore, Goa)

It was decided by the council to invite Dr. T. Ramakrishna, Professor of Law Chair Professor (IPR) from National Law School of India to Chair a committee including Prof Raghuveer Vernekar, Dr. Kaustubh Priolkar, and Dr. Krupashankara MS to review the applications for Empanelment of Patent Attorneys and Patent Agents and make recommendations to the Council

3. "Goa's Young Innovator Award" was discussed and it was decided to launch the competition on 8th December 2018. Chairman suggested presenting the list of the judging panel at the next meeting of the Council. It was also suggested to invite Director, Directorate of Higher Education and Director, State Council Educational Research and Training at this meeting.

4. The proposal to establish a Chair for Innovation and Entrepreneurship at Goa University was presented with funding support from the Department of Science and Technology, Government of Goa through Goa State Innovation Council. It was decided to forward the proposal to all members of the Council for their observations & comments and to decide on the establishment of the Chair in the next meeting.

5. The proposal to conduct a Social Thinking Seminar by IIM Calcutta Innovation Cell was discussed. It was informed that the Innovation Cell of IIM Calcutta would fund the Seminar and the council needed to arrange for participants. It was proposed to conduct the seminar on 25th January 2018 at Don Bosco College of Engineering, Fatorda and the Council decided to invite a group of twenty-five students from each of the Five Engineering Colleges of Goa since the capacity for the Seminar was 150 students.



6. It was proposed to conduct a Sensitisation Workshop on Innovation for the Students of seventh and eighth standard students from the thirteen talukas of Goa. The phase I of the Sensitisation Workshop would be in the following Schools:

**Table 3.2.7: List of schools for Phase I of the Sensitisation Workshop**

NORTH GOA		SOUTH GOA	
1	Govt. High School, Dhargal, Pernem	1	Govt. High School, Zambaulim
2	Don Bosco High School, Calangute	2	A J Almeida School, Ponda
3	Govt. High School, Sirigao, Bicholim	3	Govt. High School, Collem
4	Govt. High School, Valpoi, Sattari	4	Guardian Angel School, Sanvordem
5	Sharda Mandir School, Miramar	5	Shri Mallikarjun School, Canacona
6	Dr K B Hegdewar School, Cujira	6	St. Joseph's Institute, Vasco
		7	Manovikas High School, Margao

The schedule for the Sensitisation Workshop was discussed and it was decided to invite experienced and professional faculty to conduct the Workshop. The Principal of Goa Engineering College volunteered to engage some sessions. The total budget of Rupees seventy-eight thousand for Phase I was approved by the council during the meeting.

7. The meeting ended with the vote of thanks.

**10th MoM**

MINUTES OF THE MEETING OF GOA STATE INNOVATION COUNCIL HELD AT DON BOSCO COLLEGE OF ENGINEERING, CONFERENCE HALL ON 23rd NOVEMBER, 2018 AT 09.00 A. M.

The following members were present at the meeting:

**Table 3.2.8: GSInC members present for the meeting**

SR. NO.	MEMBERS PRESENT	DESIGNATION
1	SHRI. JOSE MANUEL NORONHA Chairman, Goa Public Service Commission, Panaji, Goa	Chairman
2	SHRI. VIVEK KAMAT Director, Directorate of Technical Education, Porvorim, 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	DR. KAUSTUBH PRIOLKAR Faculty, Goa University, Taleigao, Goa	Member
6	SHRI. D. S. PRASHANT CEO, Forum for Innovation Incubation Research & Entrepreneurship, Fatorda, Goa	Member

Shri Levinson Martins, Dr. Krupashankara MS, Dr. Mridula Goel, Shri Kunal Upadhyay, Shri Deepak Parab 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 23rd of January, 2019 were read and confirmed after which the agenda of the meeting was discussed.

2. Minutes of the meeting of the Committee established by the Council for 'Empanelment of Patent Attorney under Virtual Innovation Register' held on 11th of January, 2019 was placed before the Council.

3. Goa's Young Innovators Award was discussed and it was informed that the invitation to schools was sent on the 7th of January, 2019. Chairman suggested to include one representative from the council and Prof. Raghuveer Vernekar was nominated from the council. The following panel was suggested:

- Prof. Raghuveer Vernekar
- Shri B S Revankar
- Shri Pranay Gupta
- Shri Amarsh Chaturvedi



The Chairman suggested printing hard copies of Goa's Young Innovators brochure and submitting it to the Chief Minister's Office for publicity.

4. The proposal to establish a chair for Innovation and Entrepreneurship at Goa University was discussed. It was decided to forward the proposal for travel and accommodation budget to all the council members for their observation and comments to decide on the establishment of a chair in the next meeting.

5. The Project Officer updated the council on Sensitisation Workshops at seven schools at various locations in Goa. He also informed that a total of seven hundred and fourteen students attended the Sensitisation Workshop from seven schools. The Project Officer informed the council that the remaining workshop would be conducted before March 2019. It was decided to focus on Ideation for local problems like agriculture and skill development.

6. The proposal to establish a Tinkering Lab was discussed it was suggested that the Project officer visits the Indian Institute of Technology, Bombay to obtain a suggested list of equipment that may be procured for the facility of Tinkering Lab at Don Bosco College of Engineering, Fatorda. It was further decided that quotations for this list of equipment be obtained and procurement be initiated as per the approved budget for this facility.

7. The Faculty Development Program schedule was presented and the council suggested sending the proposal to all the council members. Chairman suggested the Project Officer discuss the dates with the head of the colleges.

8. The proposal for website maintenance was discussed and the council decided to get multiple bids from different vendors.

9. The meeting ended with the vote of thanks.

**11th MoM**

MINUTES OF THE MEETING OF GOA STATE INNOVATION COUNCIL HELD AT DON BOSCO COLLEGE OF ENGINEERING CONFERENCE HALL ON 28TH OF FEBRUARY, 2019 AT 09.00 A.M.

The following members were present at the meeting:

**Table 3.2.9: GSInC members present for the meeting**

SR. NO.	MEMBERS PRESENT	DESIGNATION
1	SHRI. JOSE MANUEL NORONHA Chairman, Goa Public Service Commission, Panaji, Goa	Chairman
2	SHRI. VIVEK KAMAT Director, Directorate of Technical Education, Porvorim, Goa	Member
3	Dr. KRUPASHANKARA MS Principal, Goa College of Engineering, Farmagudi	Member
4	DR. NEENA PANANDIKAR Principal, Don Bosco College of Engineering, Fatorda, Goa	Member
5	PROF. RAGHUVeer VERNEKAR Nominee, Goa Chambers of Commerce and Industry, Panaji, Goa	Member
6	DR. KAUSTUBH PRIOLKAR Faculty, Goa University, Taleigao, Goa	Member
7	SHRI. D. S. PRASHANT CEO, Forum for Innovation Incubation Research & Entrepreneurship, Fatorda, Goa	Member
8	SHRI. LEVINSON MARTINS Director, Department of Science and Technology, Govt. of Goa, Porvorim	Member Secretary

Dr. Mridula Goel, Shri Kunal Upadhyay, Dr. Kaustubh Priolkar, Shri Deepak Parab 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 16th January 2019 were read and confirmed after which the agenda of the meeting was discussed.

2. The Project Officer presented the learnings and observations made on the plan to establish a prototyping Lab during the visit to TATA Rapid Prototyping Lab and KReSit Lab at IIT Bombay. The Project Officer also informed the member that three sealed quotations have been received from Infinyt3D, Mattzus Learning Technologies Pvt. Ltd. and RUFY for establishing the Prototyping Lab at Don Bosco College of Engineering, Fatorda. The Project Officer was directed to open the three sealed quotations in the presence of the Director and Principal of Don Bosco College of Engineering.

3. Goa's Young Innovators Award was discussed and it was informed that the finals will be held on 13th March at Conference Hall, Don Bosco College of Engineering, Fatorda. The Chairman suggested preparing a report on the competition.

4. The proposal from Karnataka State Innovation Council to conduct Intellectual Property Rights session at KLS Gogte Institute of Technology, Belagavi was discussed and Member Secretary suggested to sign an MOU with the Karnataka State Innovation Council.

5. The Project Officer's proposal to conduct the Industry Institute Interaction at Don Bosco College of Engineering, Fatorda was approved during the meeting and the Chairman suggested inviting students from all the engineering colleges in Goa.

6. It was decided during the meeting to invite sealed quotations from interested parties for maintenance of the website of Goa State Innovation Council for the duration of three years.

7. The meeting ended with the vote of thanks.

# 04

## COMMITTEES AND SUB-COMMITTEES

## 4.1

# COMMITTEE FOR SELECTION OF PATENT ATTORNEY/ AGENT

MINUTES OF THE INTERVIEW PANEL FOR EMPANELMENT OF PATENT ATTORNEY UNDER VIRTUAL INNOVATION REGISTER OF GOA STATE INNOVATION COUNCIL HELD AT DON BOSCO COLLEGE OF ENGINEERING ON 11th JANUARY, 2019.

**Table 4.1.1: Members of interview panel**

Sr. No.	MEMBERS PRESENT	DESIGNATION
1	DR. T RAMAKRISHNA Professor of Law, Chair Professor (IPR), National Law School of India University, Bengaluru, Karnataka	Chairman
2	DR. KRUPASHANKARA MS Principal, Goa College of Engineering, Farmagudi, Goa	Member
3	PROF. RAGHUVeer VERNEKAR Chairman, Goa Chambers of Commerce and Industry - Education Committee, Panaji, Goa	Member
4	DR KAUSTUBH PRIOLKAR Professor, Department of Physics, Goa University	Member
5	SHRI. D. S. PRASHANT CEO, Forum for Innovation Incubation Research & Entrepreneurship, Fatorda, Goa	Member

Dr Kaustubh Priolkar could not attend and was granted leave of absence.

The members of the interview panel recommend the following Individuals/ Agency based on the needs of the Goa State Innovation Council:

1. Mrs. Shalini Menezes
2. Adastra IP Pvt Ltd, represented by Mr Sandeep Agarwal
3. Lawmate.in represented by Ms. Gautami Raiker
4. Jackfruit Software and Systems Pvt Ltd represented by Mrs. Supriya Ravindra

The criteria for selection of these candidates are:

1. Nature of Work undertaken like Patent Prosecution/litigation/IPR/Other IPR
2. Whether foreign filing & protection of IP abroad is undertaken
3. Whether any partner or member has cleared Patent Agent Examination
4. Kind of database is used
5. Knowledge of essential topic
6. Desirable Qualification/Additional Qualification

The Committee scheduled the interviews on 11th Jan 2019 and the committee recommend the Individuals/ Agency based on the needs of the Goa State Innovation Council.

Goa State Innovation Council constituted a committee in order to develop uniformity in approach and to ensure timely shortlisting of Ideas registered under VIR for Provisional Patent Scheme of the council. The Technical committee comprising technically qualified professionals vide order No. DBCE/GSInC/2019-20/11.

The committee comprises of the following members:

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

Figure 4.1: Notice Inviting EOI for Empanelment of 'Patent Attorney'

**The Navhind Times**



**GOA STATE INNOVATION COUNCIL**  
 Department of Science & Technology, Government of Goa  
 Secretariat: Don Bosco College of Engineering, Fatorda, Margao, Goa - 403602  
 (W) - [www.goastateinnovationcouncil.com](http://www.goastateinnovationcouncil.com) (E) - [admin@gsic.in](mailto:admin@gsic.in) (O) - 0832 2743944

**Notice Inviting Expression of Interest (EOI)**  
**For**  
**Empanelment of 'Patent Attorney' under Virtual Innovation Register**

The Goa State Innovation Council (GSInC) which has recently launched a Virtual Innovation Register through its website invites Expression of Interest (EOI) from interested parties towards empanelment of 'Patent Attorney' for filing patents for Innovative projects/ideas. The Virtual Innovation Register provides innovators with an opportunity to protect their ideas so that they may be patented at a later stage.

Those interested may submit their applications addressed to Member Secretary, GSInC by email at [admin@gsic.in](mailto:admin@gsic.in) by 10.11.2018

## 4.2

# TECHNICAL ADVISORY COMMITTEE

### FIRST MEETING AGENDA

Purpose: The 1st meeting of Technical Advisory Committee of GSInC

Objectives: To constitute the objectives and roadmap for Technical Advisory Committee

Location: Conference Hall, DBCE, Fatorda

Date And Time: 28th June 2019 at 10:00 am

SR. NO.	AGENDA ITEM	WHO
1	Reading and confirming the minutes of the last meeting	Member Secretary
2	Present status of provisional patent scheme and Virtual Innovation Register	Member Secretary
3	Roadmap for Technical Advisory Committee	Member Secretary
4	Any other matter with the permission of the Chair	



MINUTES OF THE MEETING FOR THE FIRST TECHNICAL ADVISORY COMMITTEE (TAC) OF GOA STATE INNOVATION COUNCIL HELD ON 28TH JUNE 2019 AT DON BOSCO COLLEGE OF ENGINEERING, FATORDA.

**Table 4.2.1: TAC Members present for the meeting 01**

SR. NO.	MEMBERS PRESENT	DESIGNATION
1	MR. B S REVANKAR Ex-Director NITK - STEP Surathkal, B Tech from IIT, Madras, Dharwad, 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 Designer, 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 project officer presented with the objectives of the TAC to the members.

3) The project officer presented the committee with the present status of the Ideas and Startups registered under Virtual Innovation Register which were as a result of Bootcamps on Innovations in Colleges, Sensitisation Workshops in Schools, Competitions on Innovations for Schools, Colleges and Other orientation programs conducted by Goa State Innovation Council. A total of 36 startups and 102 ideas are registered since 7th July 2018.

4) In order to select the eligible Ideas for Provisional Patents, it was decided to Invite the registered Innovators for a presentation in four phases. The entire process will be completed before February 2020.

5) The brief and abstract details about the registered Ideas from the Virtual Innovation Register were discussed and decided to shortlist them into three categories:

Category A: Total of 34 Ideas to be Invited first;

Category B: Total of 11 Ideas to be invited after Category A;

Category C: Total of 57 Ideas to be invited for an orientation program to discuss on the eligibility criteria and also in some cases where they have selected the option of patenting their Ideas as No, to understand the

reason and as it was felt that some of them may have answered without understanding the option. The committee also decided to include the newly registered Ideas for Selection during the next meeting after the presentation by the invited Innovators.

6) The shortlisted categories were identified and the committee decided to invite the first 25 out of 34 from category A on 10th July 2019 and the presentations will be done and details not to be sent in written with the committee members.

7) It was decided to brief the innovators to limit their presentation to 5 minutes and the parameters for presentation mainly are: Novelty, Innovative Approach, Usefulness, and Cost-Benefit.

8) It was also decided to sign the Non-Disclosure Agreement with the Innovators and the committee before the presentations and the same will be informed to the Innovators.

9) The meeting ended with Vote of Thanks by the Chairman.

## SECOND MEETING AGENDA

Purpose: The 2nd 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: Conference Hall, DBCE, Fatorda

Date And Time: 10 th July 2019 at 10:00 am

SR. NO.	AGENDA ITEM	WHO
1	Reading and confirming the minutes of the last meeting	Member Secretary
2	Interview for Provisional Patent Scheme Selection Process from 25 Invitees	Member Secretary
3	Any other matter with the permission of the Chair.	

MINUTES OF THE MEETING FOR THE SECOND TECHNICAL ADVISORY COMMITTEE (TAC) OF GOA STATE INNOVATION COUNCIL HELD ON 10 TH JULY 2019 AT DON BOSCO COLLEGE OF ENGINEERING, FATORDA.

**Table 4.2.2: TAC Members present for the meeting 02**

SR. NO.	MEMBERS PRESENT	DESIGNATION
1	MR. B S REVANKAR Ex-Director NITK – STEP Surathkal, B Tech from IIT, Madras, Dharwad, 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 Designer, 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 previous meeting were read and confirmed by the members.
3. During the presentations it was observed that a total of 18 Ideas were present for the evaluation by the Technical Advisory Committee out of 25 invitees. Idea with the Unique Registration Number 161 was approved and selected for Provisional Patent Scheme. A total of 8 ideas with Unique Registration Numbers 135, 193, 173, 142, 139, 244, 191 and 101 were directed to revert with proof of concepts and other supporting documents. They were advised for the importance of Inventiveness among all the Ideas for Patent Search. Out of the remaining, 10 ideas, some of the Ideas were asked to commercialise their ideas into Startups.
4. It was decided by the committee to orient the Innovators with the aspects and importance of Patent search and IPR.
5. It was decided by the committee to schedule the next meeting in the third/fourth week of August 2019.
6. The meeting ended with Vote of Thanks by the Chairman.

## 4.3

# STUDENT PROJECT PRE-ASSESSMENT COMMITTEE

Goa State Innovation Council, in collaboration with GCCI – Edu Committee, organised Innovative Student Project Competition for the final year students of Engineering colleges in Goa. The Student Project Pre-assessment Committee comprised of academic and subject experts, scientists and qualified professionals. The schedule of the student project pre-assessment committee was as follows:

**Table 4.2.3: Student Project Competition Pre-assessment Committee**

SR. NO.	DATE	DATE	COLLEGE	PANEL	DEPT	PROJECTS
1	01 Feb 2019	2:00 pm - 5:00 pm	SRIEIT	Mr Pradeep Salgaonkar Mr Tarun Krishnakumar	All	19
2	04 Feb 2019	2:00 pm - 5:00 pm	DBCE	Mr Deepak Pathania Dr Joydeep Bhattacharjee	Mechanical Electronics & Telecommunication	17
3	05 Feb 2019	10:00 am - 1:00 pm	DBCE	Dr Joydeep Bhattacharjee Mr Tarun Krishnakumar	Civil Computer	14
4	08 Feb 2019	2:00 pm - 5:00 pm	PCCE	Dr Basavadatta Mitra Ms Farheen Sayed	Computer	16
5	08 Feb 2019	2:00 pm - 5:00 pm	PCCE	Dr Nandkumar Sawant Mr Tarun Krishnakumar	Electronics & Telecommunication Information Technology	20
6	11 Feb 2019	2:00 pm - 5:00 pm	GEC	Mr Andre Mr Tarun Krishnakumar	Electronics & Telecommunication, Information Technology, Mechanical	21
7	11 Feb 2019	2:00 pm - 5:00 pm	GEC	Mr V V Kamat Mrs Radhika Nayak	Computer	20
8	11 Feb 2019	2:00 pm - 5:00 pm	GEC	Mr Prajyot Mainkar Ms Farheen Sayed	Compter Electrical & Electronics	19
9	15 Feb 2019	2:00 pm - 5:00 pm	AITD	Mr Kumar Pillai Mr Prashant Deshpande	All	16

# 05

## VIRTUAL INNOVATION REGISTER

# 5.1

## INTRODUCTION

The Virtual Innovation Register (VIR) is a unique initiative by Goa State Innovation Council 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.

Ideas are the genesis of start-ups. Having said that, ideas turn into the intellectual property only when they are implemented. Often, people get a brainwave, and an idea germinates – only to wither and die in the absence of a proper platform to test its potential. VIR is that platform where anyone can bounce their start-up ideas and get validation from experienced mentors who have significant industry experience and access to sophisticated tools to evaluate the commercial viability of ideas.

### Why is VIR 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 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.)

The adequate promotion and spreading the awareness about the VIR bore fruits.

The VIR saw registrations from 37 start-ups, as well as, submission of 142 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.

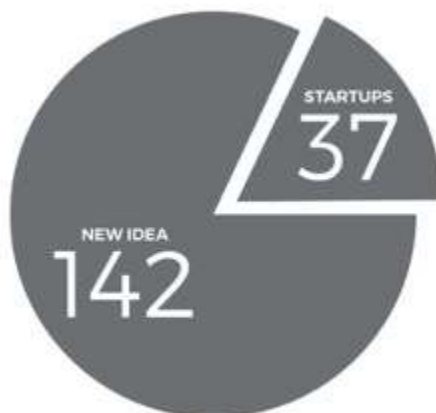
VIR is integrating technology and an iron-will to nurture a strong start-up ecosystem in Goa.

## 5.2 STATUS REPORT

The Virtual Innovation Register has successfully registered several path-breaking start-up ideas.

Out of the total 179 ideas registered on VIR, 37 were from established start-ups and 142 were new ideas.

The latter figure suggests the potential of entrepreneurship in Goa, and is also a reflection of VIR's success in reaching out to people and tapping ideas.



**Figure 5: Users Registered Under Virtual Innovation Register**



## 5.3

# SCHEME OF PROVISIONAL PATENT FILING



GOA STATE INNOVATION COUNCIL  
GOVERNMENT OF GOA

### SCHEME FOR PATENT FILING UNDER VIRTUAL INNOVATION REGISTER (VIR)

#### INTRODUCTION:

Intellectual Property Rights (IPRs) are emerging as a strategic business tool for any Innovators organization to enhance industrial competitiveness.

Innovators, with limited resources and manpower, can sustain in this highly competitive world only through continuous growth and development oriented innovations; for this, it is equally crucial that they protect their IPRs.

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 highquality IP services and resources.

#### OBJECTIVES:

The objectives of the Policy are as follows, namely:

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

**ABOUT VIRTUAL INNOVATION REGISTER:**

The Virtual Innovation Register (VIR) is a unique initiative of the Goa State Innovation Council to nurture potential ideas and innovation to its highest potential. 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 also functions as an innovation step where young innovators will display prototypes and directly talk to prospective buyers.

**FOLLOWING ARE THE BENEFITS OF VIR:**

- Safeguarding unique innovations and ideas
- Validation of idea and support from experts
- Hassle-free digital registration from the comfort of home or office
- Incentives amounting to Rs 10,000/- paid to the patent Attorney or Patent Agent from the list of empaneled Patent Attorneys/Agents for filing patent application on behalf of Applicant.

**EMPANELMENT OF PATENT AGENTS/ FIRMS FOR FILING PATENTS UNDER VIR:**

The Committee duly appointed by the office bearers of the Goa State Innovation Council for Selection of Patent Agents/ Firms scheduled the interviews on 11th Jan 2019 and the committee finalised the following Individuals/ Firm based on the needs of the Goa State Innovation Council:

Mrs. Shalini Menezes, order no DBCE/GSInC/2018-19/56

Adastra IP Pvt Ltd, represented by Mr Sandeep Agarwal, order no. DBCE/GSInC/2018-19/55

Lawmate.in represented by Ms. Gautami Raiker, order no. DBCE/GSInC/2018-19/54

Jackfruit Software and Systems Pvt Ltd represented by Mrs. Supriya Ravindra, order no DBCE/GSInC/2018-19/53

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. The said fee will be paid directly to the appointed firm for filing the application.

**PROCEDURE FOR APPLYING UNDER THE SCHEME:**

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

An individual or a registered entity (Partnership/ Limited Liability Partnership/ Private Limited Company) shall submit an application through the portal:

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

- Agri-tech
- Digital media
- Health care tech
- Manufacturing
- ITES

It is mandatory for the applicant to apply under the aforesaid mentioned portal to claim benefits under the Virtual Innovation Register.

**SELECTION COMMITTEE FOR SANCTIONING PROJECTS UNDER VIR FOR PROVISIONAL PATENT FILING:**  
 The Goa State Innovation Council shall hold meetings for once in three months basis to approve projects for filing provisional patent application.

Following is the committee for sanctioning the proposals:

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

The intimation of decision shall be made to the applicants through email within 30 number of days from the date of meeting.

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 April 2019.

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## 5.4

# APPOINTMENTS OF PATENT ATTORNEY/ AGENTS

The Committee for selection of Patent Attorney/ Agents scheduled the interviews on the 11th Jan 2019 and the committee recommend the following individuals/ agency based on the needs of the Goa State Innovation Council:

1. Mrs. Shalini Menezes, order no DBCE/GSInC/2018-19/56
2. Adastra IP Pvt Ltd, represented by Mr Sandeep Agarwal, order no DBCE/GSInC/2018-19/55
3. Lawmate.in represented by Ms. Gautami Raiker, order no DBCE/GSInC/2018-19/54
4. Jackfruit Software and Systems Pvt Ltd represented by Mrs. Supriya Ravindra, order no DBCE/GSInC/2018-19/53

The criteria for selection of these candidates are:

1. Nature of Work undertaken like Patent Prosecution/litigation/IPR/Other IPR
2. Whether foreign filing & protection of IP abroad is undertaken
3. Whether any partner or member has cleared Patent Agent Examination
4. Kind of database is used
5. Knowledge of essential topic
6. Desirable Qualification/Additional Qualification



**Figure 5.1: Launch of VIR by Hon. (Former) Chief Minister of Goa, Shri Manohar Parrikar**



**Figure 5.2: GSInC members present for the launch of VIR**

# 06

## INTELLECTUAL PROPERTY RIGHTS TRAINING

# 6.1

## INTRODUCTION

Safeguarding an innovation against thefts is vital. Intellectual Property Rights or IPR, plays an important role in giving the innovator an absolute claim over his or her innovation.

However, most innovators aren't aware of the IPR and how to seek it. Goa State Innovation Council solves this problem by arranging training programs and support initiatives across locations in the state. The IPR training workshops clearly highlight the types of inventions that would require IPR, and also outlay the process of obtaining the IPR.

The participants are also informed about their rights and benefits as an IPR owner. Goa State Innovation Council also runs IPR support initiatives to handhold innovators and young start-ups obtain an IPR license from proper authorities.

Goa State Innovation Council organized two sessions on Intellectual Property Rights for the benefit of school and college students. The sessions, held in January, 2019, saw a participation of over 200 students eager to know the nitty-gritty of obtaining IPR to safeguard innovations and disruptive ideas.

# 6.2

## IPR TRAINING FOR NEW IDEAS VIRTUAL INNOVATION REGISTER

The Goa State Innovation Council conducted an informative training program on IPR for the benefit of innovators and aspiring entrepreneurs who had registered their ideas on the Virtual Innovation Register. The training program was aimed at educating the idea-owners about safeguarding their inventions and ideas from being stolen or duplicated. The program was attended by 37 participants.

Conducted on the 13th October, 2018, the training program was scheduled as follows:

Key Note Address by Shri Jose Manuel Noronha, Chairman - GSInC

### Session 1

Process of converting Ideas into Startups

Speaker- Shri B S Revankar Ex-Director NITK – STEP Surathkal

### Session 2

Intellectual Property –Process of protecting the ideas

Speaker - Smt Gautami Raiker, Founder – Lawmate.in

### Session 3

Government Schemes of assistance

Speaker- Shri Tushar Sawant, Community Manager - FIIRE

### Session 4

Support expected from GSInC

Speaker- Shri Sudip Faldesai, Project Officer - GSInC



**Table 6.2.1: Participants of IPR Training of new ideas**

SR. NO.	NAME OF THE PARTICIPANT
1	Deepak Kolur
2	Devraj Gaude
3	Satyesh Kakodkar
4	Vassant Salgaonkar
5	Avelino B. Carvalho
6	Fred Noronha
7	Pravin Shiroadkar
8	Gaurish M Samant
9	Dinesh Chandra Mathur
10	Cancio Pereira
11	Shonal Fernandes
12	Kavita Bicholkar
13	Rehan Khan
14	Jitendra Kumar Chaudhary
15	Prajay Raikar
16	Krupesh Naik
17	Vivek Jog
18	Vineet Shukla
19	Shubhi Mathur
20	Satish R Patil
21	Dr. Rakesh Kawale
22	Mr. Rajan Shelke
23	Dr. Narayan Gurav
24	Dr. Prashant Patil
25	Dr. Harshal Wadatkar
26	Fr. Allwyn D'Souza
27	Rajesh Gaonkar
28	Alfaz Baig
29	Tanmay Bhagat
30	Saideep Naik
31	Everard Leitao
32	Vinay Dessai
33	Rahul Dessai
34	Prasad Deshpande
35	Sangam Patil
36	Nitesh Naik
37	Prathamesh Salgaonkar
38	Surabhi Rohilla
39	Anmol Naik

## FEEDBACK

Was the session interesting and understandable?



35 SAID YES

Topics covered were relevant to me?



30 SAID YES

Was the session interesting and understandable?



37 SAID YES

Planning of the session?



37 SAID YES

## 6.3

### IPR TRAINING CONDUCTED BY DR T. RAMAKRISHNA

On 11th January, 2019, DR. T. Ramakrishna, (Professor of Law, Chair Professor (IPR) – National Law School of India, Bangalore) conducted an informative IPR training session at the Goa State Innovation Council Fatorda office.

The training program was attended by 37 participants. Dr. Ramakrishna addressed the participants on two topics, 'Understanding of IPR in India,' and 'Process of IPR.'

The participants benefitted a lot from the expert insights delivered by Dr. Ramakrishna.

The training program helped students in understanding the need for IPR in safeguarding their innovations and ideas, ways to validate IPR requirements for innovation and steps to filing for an IPR licence.

**Table 6.3: Participants for IPR Training by Dr. T. Ramakrishna**

SR. NO.	NAMES OF THE PARTICIPANTS
1	Dr. Pandurang Sawant Talaulikar
2	Mr. Saheel Faldesai
3	Mr. Shonal Fernandes
4	Dr. Radhamani Divakar
5	Dr. Rajashri Mordekar
6	Ms. Priscilla Fernandes
7	Ms. Anurada
8	Mrs. Poonam Kenkre
9	Mr. Rakesh Kavale
10	Ms. Prachee Pednekar
11	Mr. Pravin Shiroadkar
12	Ms. Sandra D'Costa
13	Mr. Rajaram Parsekar
14	Mr. Viraj Mahatme
15	Mr. Dinesh Chandra Mathur
16	Mrs. Shurbhi Mathur
17	Mr. Baiju K. Aiya
18	Mr. Geetesh Naik
19	Mr. Shirish Sangelkar
20	Mr. Devraj Gaude
21	Mr. Fred Noronha
22	Mr. Krupesh Naik
23	Dr. Debjyoti Banerjee
24	Mr. Mukul Samant
25	Dr. Debasis Patnaik
26	Mr. Daniel Fernandes
27	Ms. Melcy Lily Dias
28	Prof. Sayeesh Hbbu
29	Mr. Ruben Pinheiro
30	Mr. Aditya Ashwin Upasane
31	Dr. Rajashri Mordekar
32	Ms. Nidhi Manjunath Hegde
33	Mr. Sarananan Velavan Kathirvelu
34	Mr. Ethan Savio Pimenta
35	Mr. Siddarth Bhandari
36	Ms. K. Sangeeta
37	Mr. D. C. Mathur
38	Ms. Shubhi

SR. NO.	NAMES OF THE PARTICIPANTS
---------	---------------------------

39	Mr. Manoj Pandey
40	Mr. M.P. Walke
41	Dr. P.Y. S. Talaulicar
42	Mr. Atchut A. Kamat
43	Mr. Sahil Rajendra Gaonkar
44	Mr. Royston Moraes
45	Mr. Akhilesh V. Bhise
46	Mr. Debasis Patnaik
47	Mr. Vassant Salgaonkar
48	Ms. Alzira Xavier
49	Mr. Oswyn Soares
50	Ms. Annapurna Sakhard
51	Mr. Ramakant Sawant
52	Mr. Chris
53	Mr. Jeffery Valadares
54	Dr. J. MythiliKrishna
55	Dr. Maria Fatima DeSouza
56	Dr. Radherani Divakar
57	Mr. Raghuveer Vernekar
58	Mr. Felton Mendes
59	Mr. Bhushan Sawant Dessai
60	Mr. Parag M. Gawas
61	Mr. Akshay J. Parab
62	Mr. Mandar M. Gawas
63	Mr. Gaurish M .Sawant



**Figure 6.2.1: Dr. T. Ramakrishna addressing the participants**



**Figure 6.2.2: Dr. T. Ramakrishna addressing the participants**



**Figure 6.1.3: Photograph of the participants who attended the program**

# 07

GOA'S YOUNG  
INNOVATORS AWARD



# 7.1

## INTRODUCTION

Goa's Young Innovator Award is an initiative of the Goa State Innovation Council to promote innovation and entrepreneurship among the students of Goa.

A visibly successful initiative, 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.

Students aged between 10 years and 15 years, and studying in standard V - X can participate in the competition.

There are two categories for idea submissions; students studying in standard VIII - X fall in one category and those studying in standard V - VII in the other.

The winners of the Goa's Young Innovators Award receive cash prizes, as well as, mentorship and infrastructural support to build upon their ideas.

## 7.2 PROCEDURE

### 1. What is role of GSInC in promoting Innovation?

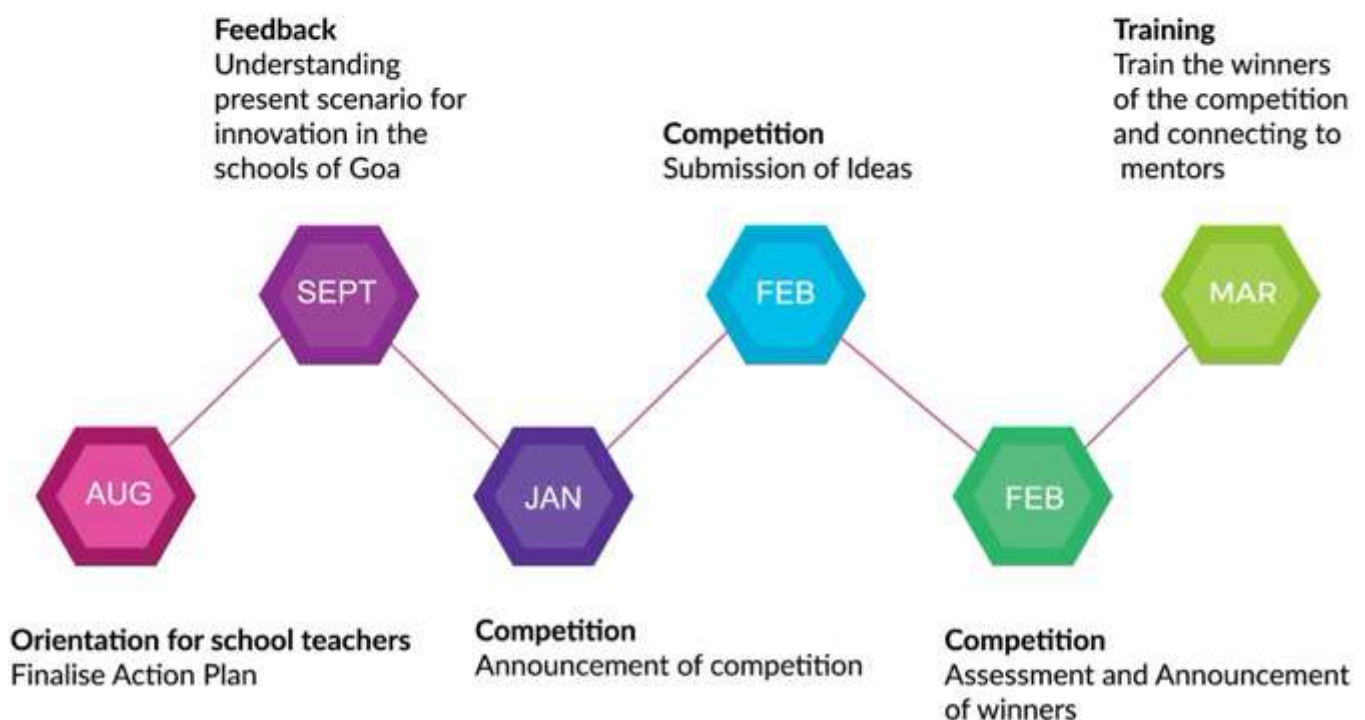
Innovation can simply be described as a new idea, device or method which is useful and scalable to appropriate levels. It should have certain distinctiveness over existing similar products/devices/methods and which helps to improve output or efficiency, enables multi functionality and reduces drudgery etc.

Goa State Innovation Council is creating an innovation movement with the involvement and commitment of people at all levels which is critical for solving challenges of inclusion in our society and to set India on the path of inclusive growth and sustainable development

### 2. Why GSInC is promoting Innovation in children?

Creativity among children is almost in-born. Every child is creative. The spirit of originality, creativity and innovation among our children has to be promoted. This will be helpful when they become leaders of our society in future, ensuring an imaginative, inclusive future for the country fuelled by innovation. Inclusive development of our society needs opportunities for children so as to ensure an aversion to inertia and a reverence for innovative ways of solving problems. Creative, impatient and imaginative children are one of the most precious assets of the nation.

### 3. Project Time report



**Figure 7.2: Goa's Young Innovators Award timeline**

#### 4. The process of project submission

- 1) Ideas should be submitted from the school in prescribed format.
- 2) Project Type: Product/Process
- 3) Description about the project with technology used
- 4) Student and school contact details
- 5) Share photos, videos, sketches of the project, if available
- 6) Submit proposal online to [goastateinnovationcouncil.com/goas-young-innovator-award](http://goastateinnovationcouncil.com/goas-young-innovator-award)

## 7.3 LAUNCH OF COMPETITION

The Goa's Young Innovator Award was launched by the hands of former Chief Minister of Goa, Late Shri Manohar Parrikar. The competition is open for all schools across the state of Goa.

**CM: govt encouraging creativity, innovation in school students**



Chief Minister Manohar Parrikar launching a competition for Goa's Young Innovator's Award, at his residence on Wednesday. Also seen is the chairman of Goa State Innovation Council Jose Manuel Noronha

**■ NT NETWORK**

**PANAJI**

With an objective to drive the Innovation agenda in the state and harness core competencies, local talent, resources and capabilities to create new opportunities, Chief Minister Manohar Parrikar on Wednesday launched a competition for Goa's Young Innovator's Award as instituted by the Goa State Innovation Council (GSIC).

GSIC chairman Jose Manuel Noronha was present on the occasion.

The effort is also aimed towards identifying and rewarding talent in innovation and disseminating success stories.

The Chief Minister in his message delivered on the occasion said, "I encourage all students from the state of Goa to actively participate in this competition so that the spirit of creativity and innovation is promoted amongst our children."

The Goa State Innovation Council has encouraged submissions from the participants for this award based on creative ideas on their own. "Parents and teachers may propose a problem to the child to identify a possible solution and then help converting the idea into a prototype/model," the Council states, pointing out that teachers are to ensure that projects submitted to the competition are in original idea so that the competition maintains a high standard.

The competition is open in two categories, for students between the age group of 10 to 15 years: one, for students studying from class V to VII, and the other for students studying from class VIII to X. All the students studying in schools in Goa and falling under the two categories, irrespective of the Board to which their school is affiliated to can participate in the same.

In each category, there are three cash prize awards amounting to Rs 20,000, Rs 10,000 and Rs 5,000, in addition to mentoring and other facilities to be provided to the winners.

The ideas need to be submitted from the school in the prescribed format consisting of product/ process, description about the project with the technology used, and student and school contact details, besides sharing of related photos, videos and sketches of the project, if available.

The participants need to submit proposals online to [goastateinnovationcouncil.com/goas-young-innovator-award](http://goastateinnovationcouncil.com/goas-young-innovator-award).

The schools have been asked to submit as many projects as they wish.

The timeline for the project starts in the month of August of the particular academic year, when the orientation for school teachers and finalisation of action plan need to take place.

The competition announcement will be made by the Council in the month of January during the academic year, followed by submission of ideas in the month of February. The assessment of ideas and announcement of winners will also take place in February, while the winners of the contest would be trained and connected to their mentors in the month of March.

**Figure 7.3: Launch of Goa's Young Innovators Award**



## 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](http://www.goastateinnovationcouncil.com)

No. DBCE/GSInC/Admn/2019-20/23

22/07/2019

To,  
The Headmaster/Headmistress

Goa State Innovation Council is pleased to announce Goa's Young Innovator Award to encourage innovative talent amongst young minds studying in the schools in Goa. Students are encouraged to come up with original and creative ideas. Teachers of the school can help the students by proposing problems to the students which need solutions and provide assistance in converting the idea into a prototype or model.

The project will be judged on the originality and usability of the innovation. The competition will be held in the following categories:

Category 1 – Students from class 8th to 10th

Category 2 – Students from class 5th to 7th

Goa's Young Innovator Award will emphasize on Innovation with weightage for Idea, Innovation and Creativity, Feasibility in terms of technology, Prototype, Scalability and Sustainability.

The Finale will be restricted to ten projects for each category from North Goa and South Goa respectively and will be held in the month of February 2019.

We request you to encourage the participation of the students from your school. The last date to submit the online application is 18th February 2019.

Kindly submit the online application at [www.goastateinnovationcouncil.com/-goas-young-innovators-award](http://www.goastateinnovationcouncil.com/-goas-young-innovators-award)

For any queries contact Shri Sudip Faladesai +91 988627270

Thanking you,  
Yours Sincerely,

s/d Project Officer

## 7.4

# STATUS REPORT

The coveted Goa's Young Innovator Award was concluded successfully on 13th March, 2019. The competition was held in two categories; category 1 (students from class 8th to 10th) and category 2 (students from class 5th to 7th). Over 200 students from various schools across North and South Goa submitted their ideas in the form of a proposal by 18th February, 2019.

The competition received an overwhelming response from students and schools alike.

With the help of their teachers and school authorities, students from various schools came up with creative ideas to use technology in bridging the societal gap and addressing grave issues in the areas of sustainable energy, environmental conservation, road safety, health and many more.

The project ideas were evaluated by a team of experts, and out of a total of:

# 98 PROJECTS SUBMISSIONS

# 10 EACH

from North and South Goa were shortlisted for the finale.

The selection of projects was based on factors such as the idea, innovation & creativity, feasibility in terms of technology, prototype, scalability & sustainability.

The students competed for:

FIRST PRIZE OF RS 20,000  
SECOND PRIZE OF RS 10,000  
THIRD PRIZE OF 5,000

The complete list of projects submitted is attached as Annexure II - A & B



# 7.5

## WINNER OF GYIA

**Table 7.5: Goa's Young Innovators Award Winners**

PRIZE	CATEGORY	PROJECT	PROJECT BY
First	GYIA/Cat 1/08	Development of oil absorbing biofilters for efficient removal of oil spill - The New Educational Institute, Curchorem	Ms. Tanishka G. Shet Raikar Mast Sanad Balegiri,
Second	GYIA/Cat 1/15	IV Therapy - Dr. K. B. Hedgewar High School, Bambolim	Mast Shreyan Burye
Third	GYIA/Cat 1/14	A Fish Feeder Robot for Aquaculture - Dr. K. B. Hedgewar High School, Bambolim	Ms Shravani Marathe
First	GYIA/Cat 2/08	A digital microscope and a laser microscope - Manovikas English Medium School	Ms. Keira Fernandes
Second	GYIA/Cat 2/15	Energy generation using vehicle passing over the speed breakers - Manovikas English Medium School	Mr. Ruben Hugo Pinheiro
Third	GYIA/Cat 2/14	Ultrasonic sensor blind guide - Vidya Vikas Academy	Mast Suhit Rajaram Mahambery



**Figure 7.5.1: Interaction with the participants**



**Figure 7.5.2: Interaction with the participants**



**Figure 7.5.3: Certificate distribution to the participants**





**Audience interaction**



**Certificate distribution by  
Principal - Don Bosco College of Engineering**



**Certificate distribution by  
Director - Don Bosco College of Engineering**



**Certificate distribution by  
Associate Professor - BITS Pilani**



**Certificate distribution by  
CEO - Forum for Innovation Incubation Research and  
Entrepreneurship**

# 08

INNOVATIVE

STUDENT PROJECT

COMPETITION (B.E.)

# 8.1

## INTRODUCTION

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 flexible to catalyse a range of different project types, scales of operation and stages of development.

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

**Most Innovative Student Project Competition for Arts, Science & Commerce**

Goa State Innovation Council, to advance a culture of innovation and entrepreneurship in the youth of Goa, scouts promising talent and innovations through student project competitions across disciplines.

Undergraduate students from Arts, Science and Commerce streams can participate in their respective category to present disruptive ideas that can change the world as we see it.

Winning projects get cash prizes and an opportunity to connect with the thought leaders and industry stalwarts, as well as, mentorship support to fine-tune the technology/product, creating a business plan and taking the start-up to market.

# 8.2

## THE LAUNCH

Student Project Competition will encourage exploration of innovative projects as part of the curriculum by the students of engineering colleges. This could be the stepping stone to explore the innovative and creative potential resulting in innovative products and services thus contributing towards Innovation and building a startup ecosystem in Goa.

Students are encouraged to come up with original and creative ideas. The projects will be judged on the originality and usability of the innovation. The Student Projects must be part of Final Year Project of undergraduate students.

One innovative project will be selected for the finals from amongst each department of every engineering college. An overall winner and runner-up will be awarded. Besides, five innovative projects will be awarded encouragement prizes.

**Table 8.2: List of Engineering Colleges In Goa**

NO.	NAME OF THE INSTITUTION
01	Agnel Institute of Technology and Design, Assagao
02	Don Bosco College of Engineering, Fatorda
03	Goa Engineering College, Farmagudi
04	Padre Conceicao College of Engineering, Verna
05	Shree Rayeshwar Institute of Engineering & Information Technology, Shiroda

Student Project Competition Discipline:

**Table 8.2.1: List of Disciplines in Engineering Colleges**

SR. NO.	DISCIPLINE	STREAMS
01	Bachelor In Electronics (B.E.)	1. B.E. Civil
		2. B.E. Mechanical
		3. B.E. Electrical & Electronics
		4. B.E. Electronics & Telecommunication
		5. B.E. Electronics & Communication
		6. B.E. Computer
		7. B.E. Information Technology

## Schedule

**Table 8.2.2: Schedule of Student Project Competition**

SR. NO.	TIMELINE	STREAMS
01	Phase I (Sept 2018)	Invitations to all the Engineering Institutions in the State of Goa. The students will submit the project idea in the format provided by Goa State Innovation Council
02	Phase II (Oct 2018)	A panel of experts will review the submissions by visiting all the Engineering colleges. The shortlisted Students Projects will be announced.
03	Phase III (Jan 2019)	Top 20 Student Project team will present the Projects in front of a Panel of Judges. Student Projects will receive Award & Recognition from Goa State Innovation Council

**Cash Prize for Top Three Students Projects**

CATEGORIES	PRIZE
Winner	INR 20,000.00
Runner up	INR 10,000.00
Encouragement prizes (5 in nos)	INR 5,000.00 each





EDU: EduCom RV- 1041.180928

September 28, 2018

Chairman: Goa State Innovation Council  
EDC House – Panaji Goa 403 001

Dear Shri Noronha:

#### FINAL YEAR INNOVATIVE PROJECT WORK

In pursuance with the decision at the last meeting of the Innovation Council to organize the above jointly with DTE, we are pleased to initiate the process.

Per consultations with the Engineering Colleges, we plan to have final competition on/ around Jan 16, 2018. The intimation to the respective colleges and criteria finalized is being copied to you.

We shall keep your office informed of the progress and developments from time to time.

Yours truly,

Raghuveer Vernekar  
Chair: Education Committee

cc: Dir DTE  
Project Director – Sudip Faldesai for information



EDU: EduCom RV- 1042.180928

September 27, 2018

Principals: Engineering Colleges from Goa

Respected Principals,

#### FINAL YEAR INNOVATIVE PROJECT WORK

We are pleased to announce that the Final Year Projects Presentation for the academic year 2018-19 will be held on/ around January 16, 2019.

This year will be a competition with the cash awards for first two (Rs20,000 & Rs10,000) and encouragement awards (Rs5,000 each) for at least five more. We shall also ensure mentoring and scaling of the shortlisted projects through benefactors. The competition with the emphasis on INNOVATION is being organized under the aegis of Goa State Innovation Council.

The projects will be assessed on the basis of:

- a. Idea Generation – Quality & Clarity
- b. Innovative Approach
- c. Feasibility in terms of Technology to support the Idea
- d. Prototype
- e. Scalability & Sustainability

Final competition will be restricted to around 20 projects. Shortlisting will be done during preceding weeks at respective colleges by special panels. We request you to announce the same to the students immediately and send us the entries per format enclosed by October 14, 2018.

Looking forward to your positive response and cooperation,

Truly,

Raghuveer Vernekar

Chair : Education Committee : GCCI

cc: GSIC, DTE



**Table 8.2.3: Applications for Students Project Competition**

COLLEGE	CIVIL	COMP	E&E	ECE	ETC	IT	MECH	GRAND TOTAL
AITD		05		06			06	17
DBCE	04	08			07		10	29
GEC	22	02	17		08	09	04	62
PCCE		16			09	09		34
SRIEIT		07			08	02		17
<b>Grand Total</b>	<b>26</b>	<b>38</b>	<b>17</b>	<b>06</b>	<b>32</b>	<b>20</b>	<b>20</b>	<b>159</b>

**Table 8.2.4: Project Titles for Students Project Competition**

SR. NO	COLLEGE	Project
1	AITD	Sensor Based Gesture To Voice Conversion
2	AITD	Advanced Home Automation
3	AITD	Coconut Harvesting Robot
4	AITD	Power Management Of Hybrid Sources
5	AITD	IOT Based Garbage Management & Monitoring
6	AITD	Automatic Emergency Power Supply With Solar Back Up
7	AITD	Induction Motor Starter
8	AITD	IOT Based Intelligent Parking System
9	AITD	Secured Starting Of Car
10	AITD	Power Generation Using Biogas
11	AITD	Android Based D.C Motor Control
12	AITD	Smart Wireless Health Monitoring System
13	AITD	Remote Monitoring Of Energy Meter And Tariff
14	AITD	Smart And Efficient Conveyor System
15	AITD	Password Based Circuit Breaker
16	AITD	Smart City Surveillance
17	DBCE	Smart Solar Grass Cutter
18	DBCE	Remotely Controlled Automatic Seed Sowing Machine
19	DBCE	Road Surface Quality Assessment Using Smart Phone Sensor Data
20	DBCE	Design And Prototyping Of Portable Cnc Plate Metal Cutting Machine
21	DBCE	Long Range Wireless Communication Using Lora
22	DBCE	Hospital Management System With Biometric Automation
23	DBCE	Implementation Of An Automated Library System
24	DBCE	Personal Assistance For Visually Impaired Using Computer Vision
25	DBCE	Thermoelectric Heating And Cooling Module
26	DBCE	Development Of Image Enhancement And Visual Mapping Algorithms For Underwater
27	DBCE	Automated Food Serving System

SR.NO.	COLLEGE	PROJECT
28	DBCE	Hospital Management System With Biometric Automation
29	DBCE	Advanced Home Automation
30	DBCE	Optimising The Fly Ash Content And Rice Husk Ash In Opc Cement
31	DBCE	Assesment And Analysis Of Traffic Data For Existing Road From Titan Circle To Sada Vasco
32	DBCE	Designing Biomedical Waste Management Facility For Goa
33	DBCE	Planning And Design Of Building For Goa State Biodiversity Board
34	DBCE	Survey And Planning For Solid Waste Management In Gec Campus
35	DBCE	Sustainable Plastic And Fibre Glass Waste Management And Developing Alternate Materials For Natural Sand
36	DBCE	Planning And Designing Multipurpose Market Complex At Gandhi Market, Margao
37	DBCE	Augmentation Of Water - A Case Study At Goa Medical College
38	DBCE	Potential Use Of Plastic As Construction Material
39	DBCE	Preparation Of Valuation Report Of A Building Based On Location
40	DBCE	Market Survey Of Water Proofing Compound To Established Its Suitability To Goan Environment
41	DBCE	Health And Seismic Assesment Of An Existing Building(S) Vis-à-vis Codal Provisions
42	DBCE	Fiber Technology In Concretre For Thin Concrete Members
43	DBCE	Health And Hygiene Assessment Of Selected Gec Buildings
44	DBCE	Partial Replacement Of Fine Aggregates With Glass Powder
45	DBCE	Studies On Heat Of Hydration Of Concrete
46	DBCE	N D Studies On Kala Academy Panaji
47	DBCE	Studies On Geopolymer Concrete With Structural Fibres
48	GEC	Waste Management System
49	GEC	Coconut Harvesting Robot
50	GEC	CCTV Surveillance Using Deep Learning
51	GEC	Cloud Assisted Event Data Recorder For Four Wheelers
52	GEC	RFID Based Fuel Theft Detection And Prevention
53	GEC	X-BEE Based Cow Health Monitoring System Using Wsn Technology
54	GEC	Automated Alerts For Vehicle Drivers
55	GEC	Blockchain Based Smart Locking
56	GEC	Campus Navigation System
57	GEC	Static Path Planning
58	GEC	Road Surface Quality Assessment Using Smart Phone Sensor Data
59	GEC	Automated Food Serving System
60	GEC	Concept Learning Using Deep Learning
61	GEC	Parking Enforcement Robot
62	GEC	Stabilisation Of Soil Using Industrial Waste
63	GEC	Reinforcement Of Cohesion Less Soil By Multi Oriented Geo Synthetic Inclusions
64	GEC	Gas Detection Robot

SR.NO.	COLLEGE	PROJECT
65	GEC	Li-fi Communication
66	GEC	Smart Railway Management
67	GEC	Manufacturing Of Bricks Using Laterite Soil
68	GEC	Automatic Attendance System
69	GEC	Water Resources Management Using Gis
70	GEC	Smart Stick For Visually Impaired
71	GEC	Automatic Attendance System
82	GEC	Experimental Investigation Of Egg Shell Powder As Partial Replacement Of Cement In Fibre Reinforced Concrete
73	GEC	Wireless Charging System
74	GEC	Improvement Of Soil Properties By Using Jute Fibre As Soil Stabilizer
75	GEC	Healthcare Auxiliary
76	GEC	System To Detect Error In Padlocks
77	GEC	Go Smart Cardiac Caretaker
78	GEC	Training And Placement Cell Automation
79	GEC	Fake News Detector
80	GEC	Car Automation (Based On Gps Auto Indication)
81	GEC	Fame-it
82	GEC	Design And Fabrication Of Solar Panel Cleaning Robot
83	GEC	Solar Powered Planting Trimming Machine
84	GEC	Design And Fabrication Of Glass Powdering And Grading Machine For Various Industrial Applications
85	GEC	Design And Fabrication Of Plastic Bottle Crushing And Recycling Machine
86	GEC	Fabrication Of Automated Weld Slag Cleaning Machine
87	GEC	Development Of A Platform With Stabilization And Control Mechanism
88	GEC	Design And Fabrication Of Mechanism For Cleaning Sewerage System
89	GEC	Biomimetic Actuation Using Shape Memory Alloys
90	GEC	Production And Characterisation Of Fuel Derived From Plastics
91	GEC	Design And Fabrication Of Cashew Fruit Processor For Procuring Seed, Nectar And Roughage
92	GEC	Material Sorting Using PLC
93	GEC	Machine Learning Techniques To Predict Neonatal Jaundice
94	GEC	Bus Identification System For Visually Impaired People
95	GEC	Smart Dustbin
96	GEC	Android Smart Medicine Search System
97	GEC	Boiler Management System
98	GEC	Bus Identification System For Visually Impaired People
99	GEC	Coin Based Solar Mobile Charger
100	GEC	Smart Workout Recommendation System For People With Heart Disease
101	GEC	IOT Based Agricultural Environment Monitoring Using Wireless Sensor Network

SR.NO.	COLLEGE	PROJECT
102	GEC	IOT Based Crop Field Intruder Detection Using Laser Beam
103	GEC	Face Recognition For Criminal Identification
104	GEC	VI App
105	GEC	Plant Leaf Disease Detection Using Machine Learning/ai
106	GEC	Flight Delay Insurance Using Blockchain And Smart Contracts.
107	GEC	Cable Fault Detection
108	PCCE	And Notifying It Through App
109	PCCE	Design And Development Of Sugarcane Harvester
110	PCCE	Design And Fabrication Of Patient Transfer Mechanism For The Standard Wheelchair Model
111	PCCE	Semi-automatic Roof Cleaning Machine
112	PCCE	Design And Fabrication Of Crop Harvesting Machine
113	PCCE	Design And Fabrication Of Semi Automated Tree Climber And Plucker.
114	PCCE	Design And Fabrication Of A Manure Spreader
115	PCCE	Smart Walking Stick For The Visually Impaired
116	PCCE	Recipe Recommender
117	PCCE	Smart Parking System
117	PCCE	Automated Hydroponic System
119	PCCE	E-tendering Using Blockchain
120	PCCE	Collective And Cooperative Transportation Using Swarm Robots
121	PCCE	Smart Parking
122	PCCE	Live Bus Tracking System
123	PCCE	Lifeguard Drone
124	PCCE	Stress Detection
125	PCCE	Self Balancing Segway
126	PCCE	Web Based Information Hiding
127	PCCE	Crimez Book
128	PCCE	IoT Based Air Pollution And Weather Monitoring
129	PCCE	Stock Market Portfolio Recommender System
130	PCCE	Supply Chain Using Blockchain
131	PCCE	Using Convolutional Neural Network For Age Detection Of Fruits.
132	PCCE	Meal Basket
133	PCCE	Disease Prediction System
134	PCCE	IOT Based Security System For Lockers
135	PCCE	Pothole Detection System
136	PCCE	IOT Based Vacuum Cleaner
137	PCCE	Vidhi-application For Lawyer And Client Communication.
138	PCCE	Real Time Gun Detection Classifier
139	PCCE	RIV-U (Movies And TV Show Rating Application)
140	PCCE	Dietmaster: A Smart Dietician

SR.NO.	COLLEGE	PROJECT
141	PCCE	Ambinova - Modular Innovations The Right Way
142	PCCE	Ground Aircraft Handling And Support System
143	PCCE	Smart Energy Meter
144	SRIEIT	Plant Recognition Using Deep Learning And Augmented Reality
145	SRIEIT	Smart Bin
146	SRIEIT	Smart Bus Pass System
147	SRIEIT	Securecert- Blockchain Based Degree Certificate.
148	SRIEIT	Analysis And Prediction Of H-1b Visa Petitions Outcomes Using Machine Learning
149	SRIEIT	Vacation Rental Business Bot
150	SRIEIT	Bikers-gp (Iot Based Biker's Safety Application)
151	SRIEIT	3d Mapping For Obstacle Avoidance And Navigation
152	SRIEIT	Smart Urban Agriculture
153	SRIEIT	Joint Resource Allocation For Device To Device Communication Underlaying Cellular Networks
154	SRIEIT	Home Security System
155	SRIEIT	Waste Management System
156	SRIEIT	Smart Urban Agriculture
157	SRIEIT	Joint Resource Allocation For Device To Device Communication Underlaying Cellular Networks
158	SRIEIT	Home Security System
159	SRIEIT	Cloud Management Support System Using Multi-agent And Internet Of Things. Automatic Bus Fare Collection System



## 8.3

# STATUS REPORT

Opening a whole new vista for the college students to showcase their talent and innovation through their final year projects, Goa State Innovation Council, in collaboration with Goa Chamber of Commerce & Industry (Education Committee), conducted seven competitions in the state, witnessing participation from more than 900 Engineering students and a total of 167 innovative projects with the promise of solving complex world problems. The 'Most Innovative Student Project Competition' for final year Engineering students is a vital move towards encouraging young minds to apply their technical education in creating workable models and prototypes that have the potential to solve a bigger problem, in terms of restoring nature, enhancing individual safety, inventive farming solutions, sustainable solutions among others.

The project submissions were evaluated on factors such as idea generation – quality & clarity, innovative approach, feasibility in terms of technology to support the idea, prototype, scalability and sustainability. Civil Engineering students from Don Bosco College of Engineering took home the first prize of Rs 25,000 for their project, 'Manufacturing of Bricks Using Laterite Soil.' The second prize of Rs 10,000 was awarded to the Computer Science students of Agnel Institute of Technology and Design for their project, 'Smart Walking Stick for the Visibly Impaired.' The third prize of Rs 5,000 each was awarded to E&E department students of the Goa Engineering College for their project, 'Power Generation Using Biogas.'

Conducted by Goa State Innovation Council and Goa Chamber of Commerce & Industry – Education Committee.

The competition had the emphasis on INNOVATION and the projects were assessed on the basis of

- a. Idea Generation – Quality & Clarity
- b. Innovative Approach
- c. Feasibility in terms of Technology to support the Idea
- d. Prototype
- d. Scalability & Sustainability

### Winners:

#### 1st Award: Rs 25,000/-

Manufacturing of Bricks using Laterite Soil

College: Don Bosco College of Engineering

Department: Civil

Project Guide: Prof. Satyesh Kakodkar

Students: Atish Loliengar, Shwetang Nadkarni, Gaurai Gaunekar, Sajal Kamat, Vikesh Malik

#### 2st Award: Rs 10,000/-

Smart Walking Stick for the Visibly Impaired

College: Agnel Institute of Technology and Design

Department: Computer

Project Guide: Prof. V. Pugazenthi, Prof. Ashish Narvekar

Students: Neel Chari, Frank D'Souza, Jesus Fernandes, Akash Hattargi

**Encouragement Awards: Rs 5,000/- each**

Power Generation Using Biogas

Goa Engineering College, E&E Department

Project Guide: Prof. Noah Dias

Students :Sahil Naik, Utkarsh Haldankar, Herambh Apte, Tejas Rivonkar

Design and Prototyping of CNC Plate Metal Cutting Machine

Goa Engineering College, Mechanical Department

Project Guide: Dr Suraj Rane

Design and Fabrication of Cashew Fruit Processor for Procuring Seed, Nectar and Roughage.

Students: Gavin Luis D'Mello, Amey Deshprabhu, Omkar Rai, Vignesh Usapkar

Don Bosco College of Engineering, Mechanical Department

Project Guide: Prof. Ishan Kossambe

Students: Mohammad Faraz Khan, Sahil Naik, Abner Vaz, Mark D'Costa, Sheaffer Noronha

SecureCert- Blockchain Based Degree Certificate.

PCCE College, IT Department

Project Guide: Prof. Siddesh Sawant

Students: Biswas Tiwari, Gaurav Salunke, Andy Carvalho, Amogh Karapurkar, Dhruvi Patil, Siddhi Gangulikar

**Table 8.3.1: Evaluation Criteria for Students Project Competition**

MARKS	IDEA GENERATION	INNOVATIVE APPROACH	EASE OF USE (TECHNOLOGICAL ACCESSIBILITY)	SCALABILITY & SUSTAINABILITY PLAN
8 - 10	The content of various ideas and innovative solution has been proposed and the application / implementation process has been clearly outlined.	The proposed work is innovative in light of current practice. The project explores technological tools or methods that are new to industry. Very practical approach, adapted to local constraints.	The technologies are readily available and could be adopted by a wide range of industry.	Is clearly described in terms of how the activities will impact stakeholders, and others interested the progress and results of the innovative planning activities that are being implemented
5 - 7	The content of some ideas and some innovative solution has been proposed and the application /implementation process has been vaguely outlined.	Tools or methods, while not entirely new to industry are applied to learning in fresh ways. Fairly adapted to local constraints.	The use of the technologies might be somewhat limited because of cost or complexity	Is somewhat described in terms of how the activities will impact stakeholders, and others interested in the progress and results of the innovative planning activities that are being implemented.
3 - 4	Limited ideas; sketchy implementation process	Tools or practices are already well established at industry. Some local constraints ignored	The technologies are sufficiently complex or expensive so as to limit broad adoption of the project	Is not described, or is vague in terms of how stakeholders, and others interested in the planning activities that are being implemented will or might impact them.
1 - 2	Very superficial knowledge; no clarity on implementation plan	No new approach. Not practical as local constraints not considered	The technologies are highly complex or expensive and unrealistic.	No clear plan of implementation.



**Figure 8.3: Evaluation Score Sheet for Students Project Competition**

College.....

Students' Projects will be assessed on the four criteria mentioned in the table below.

Please read the guidelines for assessing performance on each criterion before assigning marks.

Please give marks to groups on project SCOPE, METHOD, LEARNING & OUTCOME

SR. NO.	DEPARTMENT	TITLE OF THE PROJECT	IDEA GENERATION (10 MARKS)	INNOVATIVE APPROACH (10 MARKS)	EASE OF USE (10 MARKS)	SCALABILITY AND SUSTAINABILITY PLAN (10 MARKS)	TOTAL (10 MARKS)
01							
02							
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							

Name & Signature of Jury

Date

## Judges' Profile

### Mr Pranay Gupta

Pranay Gupta is the Co-Founder of 91springboard, the first co-working hubs company in India. They have a pan India network of coworking hubs & are instrumental in creating communities that help businesses grow. He is an IIT Delhi and IIM Ahmedabad alumnus, he was instrumental in setting-up and running of IIM Ahmedabad's incubator - including programs like Mentoredge, Power of Ideas and iAccelerator. He loves to coach and help entrepreneurs.

### Mr Satish Kataria

(Investment Head at Viridian Asset Advisors Private Limited, Mumbai, Maharashtra, India)

With a total industry experience of eighteen years in various domains, including public relations, brand management and PE/VC Investment management - Satish has always been keen to assist start-ups.

Understanding the challenges, the conventional funding structure has in India, he actively pursues evolving funding mechanisms globally.

Satish has been credited with the introduction of 'Crowd Funding' in India - which he brought to India in 2010 in partnership with Grow VC - a leading European Crowd Funding Platform. Continuing his endeavour to enable talented individuals across various domains to get funding and resources, he founded Catapooolt - which in short span, has become the fastest growing Crowd Funding platform in India. Satish continues to work with leading ecosystem players in the early stage investing as well as creative domain and endeavours to focus on bringing more innovations in the domain of fund raising.

Specialties: Start-up mentoring, Fund raising, investment management, brand communication, Crowd Funding

### Mr B S Revankar

An IIT alumnus with over three decades of experience in the field of entrepreneurship development, Mr Revankar has worked with organizations such as the Centre for Entrepreneurship Development of Karnataka, Technical Consultancy Services Organisation of Karnataka, and Entrepreneurship Development Institute of India, Ahmedabad. Presently, he is the Consultant (Entrepreneurship Development) to Sanjay Ghodavat University, Kolhapur, where the EDP cell is established and is running successfully.

**Table 8.3.2: Students Project Competition Winners**

PRIZE	PROJECT TITLE	DEPT.	COLLEGE	BENEFICIARY
First Rs 20,000/-	Manufacturing of Bricks using Laterite Soil	Civil	Don Bosco College of Engineering	Don Bosco College of Engineering
Second Rs 10,000/-	Smart Walking Stick for the Visibly Impaired	IT	Agnel Institute of Technology and Design	Agnel Institute of Technology and Design
Encouragement Rs 5,000/-	Design and Fabrication of Cashew Fruit Processor for Procuring Seed, Nectar and Roughage	Mech	Don Bosco College of Engineering	Don Bosco College of Engineering
Encouragement Rs 5,000/-	Design of Photo typing of CNC Plate Metal Cutting Machine	Mech	Goa College of Engineering	Goa College of Engineering
Encouragement Rs 5,000/-	Power Generation using Biogas	E & E	Goa College of Engineering	Goa College of Engineering
Encouragement Rs 5,000/-	SecureCert – Blockchain Based Degree Certificate	IT	Padre Conceisao College of Engineering	Padre Conceisao College of Engineering



**Interaction by Mr. Satish Kataria**



**Interaction by Mr. Pranay Gupta**



**Project presentation by the participants**



**Project presentation by the participants**



**Certificate distribution to the participants**



**Certificate distribution to the participants**



**Certificate and prize distribution to the participants**



**Certificate and prize distribution to the participants**



# 09

## BOOTCAMPS ON INNOVATIONS IN INSTITUTIONS

# 9.1

## INTRODUCTION

Technology and innovation are the two areas where the bootcamps on innovation focus. Designed specifically for college students of Goa, the bootcamps introduce them with the concepts of innovation and creativity and also help them understand the process behind becoming a technology entrepreneur.

Industry leaders, teachers and mentors conduct the bootcamps and apprise the students on planning, execution and implementation of a start-up.

Typically, 3 - 4 hours long, the bootcamps on innovation are conducted at the institutional campus. Besides exposing the students to the rigours of launching and successfully scaling a start-up, the students are also informed about the role of Goa State Innovation Council plays in the field of innovation in Goa.

Bootcamps on innovation are also the right place to learn about various government support schemes and initiatives.

**Table 9.1: Schedule for Bootcamps on Innovation**

SR. NO.	TIME	TOPIC	DURATION
01	10:00 AM - 10:30 AM	Introduction of Goa State Innovation Council & Bootcamp	30 MINS
02	10:30 AM - 11:15 AM	How to be a Tech Startup?	45 MINS
03	11:15 AM - 11:30 AM	Break (Tea and Snacks)	15 MINS
04	11:30 AM - 12:15 PM	Process of setting up an Enterprise, Ideation, Planning, execution, etc.	45 MINS
05	12:15 PM - 12:45 PM	Various Government Funds and Schemes assistance for starting up	45 MINS
06	12:45 PM - 1:00 PM	Q & A	15 MINS

## 9.2

# STATUS REPORT

Forwarding the baton of innovation, the Goa State Innovation Council team has done a splendid job in organising bootcamps on innovation across institutes in Goa. In total, 27 bootcamps were organised across 20 institutes including IIT Goa, Goa College of Engineering, Agnel Institute of Technology and Design, St. Xavier's College, Don Bosco College of Engineering among others in a span of one year. Through the bootcamps, over 2,500 students were taught to harnessing innovation into successful start-ups. The 2-to-3-hour long bootcamps were designed to encourage maximum student participation. With rapid advancements in technology, the youngsters are at the forefront of technological innovation, and the bootcamps organised on college campuses help them in grooming their entrepreneurial dreams better. Moreover, students are given information on securing their innovation through patenting, copyrighting or by simply registering it with Goa State Innovation Council's Virtual Innovation Register (VIR). Post-program feedbacks revealed that as many as 990 students who attended the bootcamps are interested in launching 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 the awareness about transforming technology-led innovations into tomorrow's successful start-ups.

### Details of Innovation Bootcamps organised by Goa State Innovation Council:

8 Feb 2019 - Bootcamp at Shree Rayeshwar Institute of Engineering and Information Technology

	1. Mr Tushar Sawant
Speakers	2. Ms Poonam Shirsat
	3. Mr Kunal Arolkar

Total Participants : 178

2 Feb 2019 - Bootcamp at IIT Goa

	1. Mr Tushar Sawant
Speakers	2. Ms Farheen Sayed
	3. Mr Ramchandra Salgaonkar

Total Participants : 42

30 Jan 2019 - Bootcamp at Saraswat Vidyalayas College of Commerce and Management Studies

	1. Mr Ramachandra Salgaonkar
Speakers	2. Tushar Sawant
	3. Farheen Sayed

Total Participants : 58

24/01/2019 - BOOTCAMP at Rosary College, Navelim

	1. Mr Tushar Sawant
Speakers	2. Ms Farheen Sayed
	3. Mr Avin Naik

Total Participants : 82

27/09/2018 - Bootcamp at Govt College of Arts, Science & Commerce, Quepem

	1. Mr Tushar Sawant
Speakers	2. Ms Suwarna
	3. Mr Ramchandra Salgaonkar

Total Participants : 78

21/09/2018 - Bootcamp at Chowgule college

	1. Mr Tushar Sawant
Speakers	2. Ms Farheen Sayed
	3. Mr Ramchandra Salgaonkar

Total Participants : 83

09-08-2018 - Bootcamp at Don Bosco College of engineering, fatorda

	1. Mr Tushar Sawant
Speakers	2. Mr Sushant Surlekar
	3. Ms Suwarna Surlekar

Total Participants : 101

## 27 Jul 2018 - Bootcamp at Goa Engineering College

- Speakers
1. Mr Ryan Vaz
  2. Ms Farheen Sayed
  3. Mr K D Bhatt

Total Participants : 70

## 24 Jul 2018 - Bootcamp at Padre Conceicao College of Engineering

- Speakers
1. Mr Maxwell Rodrigues
  2. Mr Tushar Sawant
  3. Mr K D Bhatt

Total Participants : 129

## 23 Jul 2018 - Bootcamp at Shree Rayeshwar Institute of Engineering and Information Technology

- Speakers
1. Mr Farheen Sayed
  2. Mr Tushar Sawant
  3. Mr K D Bhatt

Total Participants : 92

## 16 Jul 2018 - Bootcamp at Shree Damodar College of Commerce &amp; Economics

- Speakers
1. Ms Farheen Sayed
  2. Mr Tushar Sawant
  3. Mr Sushant Surlekar

Total Participants : 81

## 11 Jul 2018 - Bootcamp at Institute of Shipbuilding Technology, Sada

- Speakers
1. Ms Farheen Sayed
  2. Mr Tushar Sawant
  3. Mr Sushant Surlekar

Total Participants : 51

## 30 Jun 2018 - Bootcamp at Government College of Commerce, Borda

- Speakers
1. Ms Farheen Sayed
  2. Mr Tushar Sawant
  3. Mr Tushar Sawant

Total Participants : 81

## 23 Mar 2018 - Bootcamp at PES Shri Ravi S. Naik College of Arts &amp; Science

- Speakers
1. Ms Farheen
  2. Mr Tushar Sawant
  3. Mr Sushant Surlakar

Total Participants : 171

16 Mar 2018 - Bootcamp at Govt.College of Arts Science & Commerce, Quepem

Speakers                   1. Ms Farheen  
                                  2. Mr Tushar Sawant  
                                  3. Mr Sushant Surlakar

Total Participants : 53

13 Mar 2018 - Bootcamp at Padre Conceicao College of Engineering

Speakers                   1. Mr Rajaram Parsekar  
                                  2. Mr Tushar Sawant  
                                  3. Mr Sushant S Urlekar

Total Participants : 76

7 Mar 2018 - Bootcamp at Dhempe College of Arts, Commerce and Science

Speakers                   1. Mr Sameer Narvekar  
                                  2. Mr Tushar Sawant  
                                  3. Mr Pravin Sabnis

Total Participants : 53

5 Mar 2018 - Bootcamp at Goa College of Pharmacy, Panjim

Speakers                   1. Mr Rajaram Parsekar  
                                  2. Mr KD Bhatt

Total Participants : 35

23 Feb 2018 - Bootcamp at Agnel Institute of Technology and Design

Speakers                   1. Mr Sameer Narvekar  
                                  2. Mr Tushar Sawant  
                                  3. Mr KD Bhatt

Total Participants : 144

22 Feb 2018 : Bootcamp at Government College of Arts, Science and Commerce

Speakers                   1. Mr Sameer Narvekar  
                                  2. Mr Tushar Sawant  
                                  3. Mr Sushant Surlakar

Total Participants : 51

21 Feb 2018 - Bootcamp at MES's College of Arts and Commerce

Speakers                   1. Mr Rajaram Parsekar  
                                  2. Mr Tushar Sawant  
                                  3. Mr Sushant Surlakar

Total Participants : 45

## 27 Jan 2018 - Bootcamp at Don Bosco College of Engineering

	1. Mr Sushant Surlakar
	2. Ryan Vaz
Speakers	3. Shalini Menezes
	4. Tushar Sawant
	5. Farheen Sayed

Total Participants : 150

## 22 Jan 2018 - Bootcamp at Shree Rayeshar College of Engineering

1. Rajaram Parsekar
2. Tushar Sawant
3. Avin Naik

Total Participants : 120

## 19 Jan 2018 - Bootcamp at Goa Engineering College

Speakers	1. Gareth Baretto
	2. Avin Naik

Total Participants : 63

## 18 Jan 2018 - Bootcamp at St. Xaviers College

	1. Jason Fernandes
Speakers	2. Tushar Sawant
	3. Avin Naik

Total Participants : 200

## 12 Jan 2018 - Bootcamp at Government Polytechnic Curchorem

	1. Gareth Baretto
Speakers	2. Farheen Sayed
	3. Tushar Sawant
	4. Avin Naik

Total Participants : 106

## 3 Jan 2018 - Bootcamp at Government Polytechnic Panaji

	1. Pravin Sabnis
Speakers	2. Farheen
	3. Tushar Sawant

Total Participants : 90





**Figure 9.1: Bootcamps on Innovation in Colleges**



**Figure 9.2: Bootcamps on Innovation in Colleges**



**Figure 9.3: Bootcamps on Innovation in Colleges**



**Figure 9.4: Group discussion during Bootcamp**



**Figure 9.5: Bootcamps on Innovation in Colleges**





# 10

## FACULTY DEVELOPMENT PROGRAM

# 10.1

## INTRODUCTION

The specialized Faculty Development Programs (FDP) are delivered to teachers to prepare them as a resource person to mentor young students interested in the field of Science and technology and harness their creativity in driving innovation and entrepreneurship.

The FDPs provide inputs on process and practice of entrepreneurship development, communication and inter-personal skills, creativity, problem-solving, achievement motivation training and inputs on resource and knowledge industries. The training methodology includes case studies, group discussions, games and simulation exercises, field visits and classroom lectures.

School and college faculties are important resources for educating students about innovation and entrepreneurship, as they already have a rapport with them. Through regular FDP programs, Goa State Innovation Council has made a definitive impact in introducing thousands of students with the concepts of innovation and start-ups.

Table 10.1.1: Topics for FDP 01

DATE	FROM	TO	TOPICS	VENUE
18th Aug	9:30 AM	10:00 AM	Registration	Smt Suvarna Sulekar Director, Codewell Computers
	10:00 AM	12:00 AM	Panel Discussion on Startups	
	12:00 AM	1:15 PM	<b>Lunch Break</b>	
	1:15 PM	3:30 PM	Opportunity recognition in S & T student projects	
	3:30 PM	3:45 PM	<b>Tea Break</b>	
	3:45 PM	6:00 PM	Panel Discussion - Angel Investor Fund & Venture Capital Fund for Startups & MSMEs	
24th Aug	10:00 AM	11:00 AM	How to convert an Idea into an Enterprise?	Shri Anish Dsouza Founder - Sun360
	11:00 AM	11:15 AM	Tea Break	Smt Vishnu Priya NEN
	11:15 AM	1:00 PM	Establishing Entrepreneurship Cell at Institutes Curriculum Development for EAC & Development of Calendar of Events for Entrepreneurship Cell	
	1:00 PM	2:00 PM	Lunch Break	
	2:00 PM	3:00 PM	Entrepreneurship & Economic Development	Smt Mridula Goel Faculty, BITS Pilani K.K. Birla Goa Campus
	3:00 PM	3:15 PM	Lunch Break	Mr KD Bhatt Visiting Faculty, Goa Institute of Management, Goa
	3:15 PM	5:00 PM	Creativity and Problem Solving + Activity Based Session	
25th Aug	10:00 AM	11:15 AM	Role of Support agencies in promoting Startups-Banks, DIC, etc	Mr Tushar Sawant Manager - CIBA
	11:15 AM	11:30 AM	Tea Break	Mr Ryan Vaz Founder - 3DInfynyt Technology
	11:30 AM	1:00 PM	Idea to concept - Motivation Training + Activity	
	1:00 PM	2:00 PM	Lunch Break	Mr Ryan Vaz Founder - 3DInfynyt Technology
	2:00 PM	3:45 PM	Idea to concept - Motivation Training + Activity	
	3:45 PM	4:00 PM	Tea Break	
	4:00 PM	5:00 PM	Do we need an IP for our Ideas Patenting & IPO	Smt Shalini Menezes Founder - Sim Sim Legal Consultations



**Table 10.1.2: Topics for FDP 02**

DATE	FROM	TO	TOPICS	VENUE
8th Mar	9:30 AM	10:00 AM	Registration	Mr Sandeep Agarwal Director, Adastra IP
	10:00 AM	1:00 PM	Patent Search Session	
	1:00 PM	2:00 PM	Lunch Break	Mr Sandeep Agarwal Director, Adastra IP
	2:00 PM	5:00 PM	Drafting Provisional Specifications	
9th Mar	10:00 AM	1:00 PM	Business Model Innovation	Shri Tapish Bhatt VP – CIIE, IIMA
	1:00 PM	2:00 PM	Lunch Break	Shri Tapish Bhatt VP – CIIE, IIMA
	2:00 PM	5:00 PM	Looking through an Investors Lens	
10th Mar	10:00 AM	12:00 PM	Value Proposition	Shri Tapish Bhatt VP – CIIE, IIMA
	12:00 PM	1:00 PM	Business Plan Writing	VP – CIIE, IIMA
	1:00 PM	3:00 PM	Valedictory Function + Lunch	



## 10.2

# STATUS REPORT

The Faculty Development Programme (FDP) is designed to train and develop faculties in entrepreneurship development so that they can act as resource persons in guiding and motivating young S&T persons to take up entrepreneurship as a career. Through each FDP, faculty members of Science and Engineering colleges, Polytechnics, Industrial Training, Science, Commerce, Arts, etc are trained.

The FDPs provide inputs on process and practice of entrepreneurship development, communication and inter-personal skills, creativity, problem solving, motivation training, inputs on available resources and supporting industries. The training methodology includes case studies, hands on workshops, team exercises and interactions with entrepreneurs, government officials and industry persons.

The objective of the FDP aims at equipping teachers with skills and knowledge that are essential for inculcating entrepreneurial values in students and guiding and supporting their progress towards entrepreneurship. Creating jobs and innovations will help address societal needs through science and technology and provide exciting opportunities to empower the youth.

## FDP 1

Goa State Innovation Council along with BITS Pilani, K.K.Birla Goa Campus and BITS - BIRAC BioNEST organised a Faculty Development Programme for the teachers of Science and Technology colleges of Goa University. The objective of the programme was as follows:

Training the teachers to be well equipped with skills to develop innovative and creative thinking approach among students.

Provide an exposure to 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.

Provide details on the policies present and activities taken up by the Government of Goa in promoting innovation and creativity.

### 18TH AUGUST, 2018: DAY ONE WAS DIVIDED INTO THREE SESSIONS

Session 1: Catalysing Startup ecosystem with academia and industry collaboration:

The Chief Guest for the day was Lt Gen PJS Pannu PVSM, AVSM, VSM, Deputy Chief HQ IDS, Delhi and the session was chaired by Rear Admiral V.M. Doss. In this session Startups across India were invited to share their entrepreneurial experiences. These young entrepreneurs explained the efforts required, obstacles faced and mind-set preparation needed to take an innovation idea and build an enterprise out of it. Following were the companies that participated in the session:

- Mr Mrinal Pai ( CEO), Skylark Drone, Bangalore
- Mr Pulkit Gaur (CEO), Gridbots Technologies from Ahmedabad
- Mr Sreenath (CEO), Inxee Systems Private Limited - Delhi NCR
- Mr Tanuj Jhunjwala (CEO), Planys Technologies Pvt. Ltd. - Chennai
- Mr Ganesh Shankar (CEO), FluxGen Engineering Technologies - Bangalore
- Mr Venu Kandadai (CEO), Manjeera Digital Systems Pvt Ltd. - Hyderabad
- Ms Ranjita Ravi (CEO) and Mr Prajval Sabnis (Director), Orxa Energies - Bangalore
- Mr Diptesh Mukerjee (CEO) and Mr Pradipto Bose, Abstract Ideas - Mumbai
- Mr Nagendra Nagaraj (CEO), Alphaics - Bangalore

Session 2: Opportunity Recognition in S & T student project.

The speaker for this session was Mrs. Suvarna Surlekar who explained the process of patent filing of an innovation. She shared various examples of patents filed in India and Abroad. She motivated the participants to patent their innovative products and ideas to protect them. She also reminisced her startup journey.

Session 3: Panel Discussion - Angel Investor fund & Venture Capital Fund for Startup & MSMEs.

A panel of following nine members interacted with the audience:

- Mr R.Ramanan - Mission Director, Atal Innovation Mission, NITI AAYOG
- Ms Padmaja Ruparel -Co- Founder and President, Indian Angel Network
- Mr P.S.Sreekanth - Investment Director, Hyderabad Angels
- Mr Apoorv Sharma - Co-founder and president, Venture Catalysts

- Mr Shaju Stephen - Managing Director, AADYAH Aerospace Ventures
- Prof. Mridula Goel- Faculty In-charge, CIIE, BITS Pilani K K Birla Goa Campus
- Dr Vishwas Udpikar - Director, Wavelet Group

Advice given to the participants:

- Investors generally look for a product prototype before investing.
- They look for a champion within the team that will drive the Startup idea.
- They look at how the team is constructed and variety in skill sets of team members.
- It is observed that service oriented Startups generate more profits in short duration of time rather than a product in itself that is the core reason why IT Startups that provide platform as a service or Software as a service get funded faster than Product development companies hence a prototype is a must.
- Investors look for commitment and research towards the Product plan and assess the extent of perseverance of the founding team.
- Mr. Ramanan shared real life experiences on how innovation is at its best at school level and how ATAL TINKERING LABS are playing a major role in providing exposure to technology at young age.

#### 24TH AUGUST, 2018

To begin the day, Mr Anish Sousa- Founder of SUN360 shared his views on "How to convert an idea to an Enterprise. He gave some insight on his Startup that helps the clients to reduce their operating costs and carbon footprint by designing, installing and maintaining solar and other energy efficient technologies. ". He helped the participants to understand all the practical problems that an entrepreneur can face while establishing an enterprise.

Mrs Vishnu Priya from NEN spoke on steps to be taken by teachers and institutes to establish entrepreneurship cell. She also spoke on how to build an institute's curriculum development for EAC.

Prof. Mridula Goel, Faculty Incharge at CIIE BITS Pilani Goa, Incharge - BITS BIRAC BioNEST interacted with the participants to understand the existing Entrepreneurship courses offered by the participating institutes and whether they have plans of introducing E- Cells in near future. She guided the faculty on impact of innovative Startups upon the Economic development of the country and the steps taken up by Government of India in support of these Startups.

The day ended with session headed by Professor K. D. Bhatt who is the member of advisory committee for Goa Institute of Management in which he made the teachers answer some puzzles that stressed on thinking out of the box. This helped in developing a creative thought process.

#### 25TH AUGUST, 2018

The day began with a session by speaker Mr. Tushar Sawant – Incubator Manager CIBA. He threw light on various policies and schemes of the Government of India and the state government that are present to support the funding of Startups.

The session conducted by Mr. Rayan Vaz, Founder – 3D Infinity Technology was an interactive and hands on

session. He explained the concept of 3D Printing and the software like Google SketchUp for concept to sketch modelling. He demonstrated how a 3D Printer and 3D pen works. In an activity the teachers were divided in to groups on five and were given 3D pens make an innovative product, also props were provided innovate a product and the groups were asked to market it. Finally the teachers were given exercises that they thought were impossible like passing a barbeque skewer through balloons etc. This session made the participants to consider new approach in problem solving that are considered impossible otherwise.

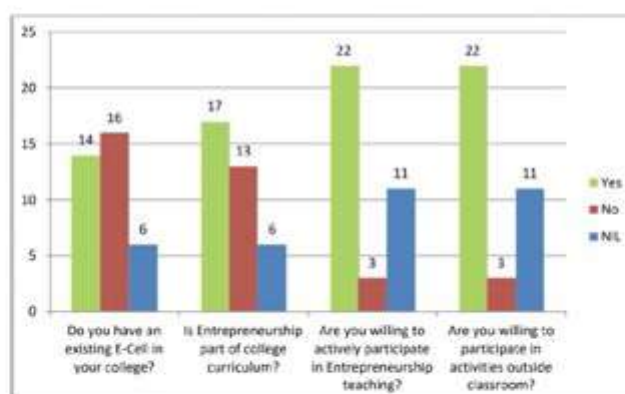
Report on Faculty Development Programme[18th, 24th and 25th August 2018] BITS Pilani K.K. Birla, Goa Campus

Last but not the least Mrs Shalini Menezes – Founder, Sim Sim Legal advisory services taught the process of IP and patent filing. She went through the trends in India and abroad to patent an idea or trademark etc.

The Faculty development programme touched on the following:

- Inputs were provided on process and practice of innovative thinking.
- Communication and inter-personal skill development.
- Creativity, problem solving, motivation training and inputs on available resources in academia.
- Understanding the industry support available and networking with industry experts.
- The training methodology included case studies, hands on workshops, team exercises and interactions with Startups, government officials as well.
- Importance of Startup in job creation and empowerment of youth
- The programme equipped the teachers with skills and knowledge that are essential for inculcating creative ideas in students and guiding and supporting their progress towards setting up their own Startups. All in all it was a very informative session and feedback suggests the same.

## FEEDBACK



**Figure 10: FDP Feedback**

## EVALUATION:

Going further which area would you like specific help?

- How to tackle entrepreneurship problems in real life - Government College of Science, Khandola
- Conduct more effective training sessions, like this one - Don Bosco College of Engineering, Fatorda
- Help students in getting Internships - Government College of Science, Khandola
- Help including students participation alongside with teachers - Government College of Science, Khandola

## FDP 2

### Goa State Innovation Council Conducts FDP at BITS Pilani

Goa State Innovation Council along with BITS Pilani, K.K.Birla Goa Campus and BITS - BIRAC BioNEST organised a Faculty Development Programme for the faculties of Science and Technology colleges from Goa University on 8th, 9th and 10th of March 2019.

The objective of the programme was to train the faculties on Intellectual Property Rights and Provide exposure to Business Model Innovation and Business Plan Writing.

The Programme started with the welcome note by Dr. Mridula Goel, Faculty in Charge, BITS BIRAC BioNEST and Mrs. Satyakirti Faldesai, Incubator Manager, BITS BIRAC BioNEST.

On the first day, a session on Patent Search was conducted by Mr. Sandeep Agarwal who explained the process of patent filing of any innovation. He shared various examples of patents filed in India and Abroad.

In the post lunch session, Mr. Rahul Bagga presented with Drafting Provisional Specifications wherein he explained the process of drafting patents and the importance of provisional patent. An exercise involving a patent search was conducted to motivate the participants.

The second day began with the session of Mr. Tapish Bhatt, who spoke on Business Model Innovation. The session involved an activity with a group discussion on various Business Models.

Looking through an investor's Lens was the next session on the second day wherein Mr. Tapish Bhatt motivated the participants to understand the importance of investability for any idea. The participants were assigned with the task of creating a business pitch.

The participants visited the BITS BIRAC BioNEST Incubator situated at BITS Pilani K. K. Birla Goa Campus.

On the last day, Mr. Tapish Bhatt spoke on Value Proposition. The participants presented the Business Pitch plan.

The participants were presented with Certificate. Mr. Sudip Faldesai, Project Officer at Goa State Innovation Council proposed the vote of thanks.



# 10.3

## LIST OF PARTICIPANTS

FDP 1

Table 10.3.1: FDP 01 Participants

SR. NO	NAME	COLLEGE
1	Dr. Nirmala D' Abreu	Government College of Science
2	Mr. Vishnu C. Vete	Government College of Science
3	Dr. Jivexa Bhattacharjee	Government College of Science
4	Dr. Radhamani Divakar	Government College of Science
5	Dr. Daphne C. Faria	Government College of Science
6	Ms. Roshna R. Gawas	Government College of Science
7	Ms. Tanvi ShenoyMr.	Government College of Science
8	Vishal Naik	Government College of Science
9	Ms. K Sangeeta	Government College of Science
10	Dr. Akshay Nigalye	Goa Engineering College
11	Dr. Shridhar Mhalsekar	Goa Engineering College
12	Dr. Aisha Fernandes	Goa Engineering College
13	Mr. Nitesh Naik	Goa Engineering College
14	Ms. Kavita Asnani	Goa Engineering College
15	Mr. Teslin Jacob	Goa Engineering College
16	Ms. Palhavi Kerkar	Goa Engineering College
17	Ms. Ashmita Kerkar	Goa Engineering College
18	Prof. Jeffery Valadares	Don Bosco College of Engineering
19	Prof. Mithil Parab	Don Bosco College of Engineering
20	Viren Pereira	SRIEIT
21	Shreeyank Jambhale	SRIEIT
22	Mr. Harsha Ferari	Government Polytechnic
23	Mr. Raja Sawant	Government Polytechnic
24	Mr.Paresh Panshikar	Government Polytechnic
25	Mr.Vaibhav Vellip	Government Polytechnic
26	Mr Rohan Naik	Government Polytechnic
27	Ms. Namita Neurenkar	Damodar College
28	Ms. Rishmi Thakur	Damodar College
29	Ms Gladys D Souza	Carmel College
30	Mr. Abhishek Gudekar	Chowgule College
31	Ms. Amisha Shirodkar	Chowgule College
32	Mr. Gurav Pandit	Don Bosco College of Agriculture
33	Mr. Pravin Chendaye	Don Bosco College of Agriculture

Table 10.3.2: FDP 02 Participants

SR.NO.	NAME	COLLEGE
1	Saish Narayan Rivankar	Agnel Institute of Technology & Design
2	Vidya Nadagaddi	Agnel Institute of Technology & Design
3	Roshna Gawns	Govt. College of Arts, Science & Commerce, Khandola
4	Viren Pereira	Shree Rayeshwar institute of Engg & Info Tech
5	Rosh Charles Fernandes	Shree Rayeshwar institute of Engg & Info Tech
6	Aditi Silveira	Padre Conceicao College of Engineering
7	Lohit R. Gunaji	Shree Rayeshwar institute of Engg & Info Tech
8	Clavon J Mascarenhas	Shree Rayeshwar institute of Engg & Info Tech
9	Dr. R. Kanchana	Parvatibai Chowgule college of Arts & Science
10	Madhavi M. Motankar	Parvatibai Chowgule college of Arts & Science
11	Dr. Sharad M. Sontaka	BITS Pilani, Goa
12	Dr. Ranjita U. Sawalker	PES'S RSN College of Arts & Science, Ponda
13	Ms. Ashvini Y. Pujari	PES'S RSN College of Arts & Science, Ponda
14	Me. Dipak Yashawant Bowalkar	Govt. College of Arts, Science & Commerce, Khandola
15	Mr. Gaurish M. Samant	Don Bosco College of Engineering
16	Dr. Aureen Gomes	Govt. College of Arts, Science & Commerce, Khandola
17	Ms. Shivani Shirodkar	MES College of Arts & Commerce, Zuarinagar
18	Mr. Shreeyank Jambhale	Shree Rayeshwar institute of Engg & Info Tech
19	Dr. Richa Singhal	BITS Pilani, Goa
20	Dr. Pradeep Kumar Sow	BITS Pilani, Goa
21	Mainak Banerji	BITS Pilani, Goa
22	Anasurya Ganguly	BITS Pilani, Goa
23	Dr. Suphala Pujari	Govt. College of Arts, Science & Commerce, Sanquelim
24	Dr. Rajesh Parvatkar	Govt. College of Arts, Science & Commerce, Sanquelim
25	Gonsalves Meyrick	Fr. Agnel College of Arts & Commerce, Pilar
26	Nitisha Covekar	Fr. Agnel College of Arts & Commerce, Pilar
27	Dr. Annie F. D'Souza e Gomes	Govt. College of Arts, Science & Commerce, Quepem
28	Nehal Shrikant Ajgaonkar	Govt. College of Arts, Science & Commerce, Quepem
29	Mr. Devanand K. Velingkar	Govt. College of Arts, Science & Commerce, Khandola
30	Satyesh Kakodkar	Don Bosco College of Engineering
31	Dr. Kulkarni Rajender Rao	Govt. College of Arts, Science & Commerce, Quepem
32	Loudes Soares	BITS Birac Incubate





**Figure 10.3.1: View of audience**



**Figure 10.3.2: Group discussion**



**Figure 10.3.3: 3D printing workshop**



**Figure 10.3.4: 3D printing workshop**



# 11

## WOMEN CENTRIC WORKSHOPS

# 12

## SENSITISATION WORKSHOP ON STEM EDUCATION

# 11.1

## INTRODUCTION

An important initiative by Goa State Innovation Council to accelerate women-driven business initiatives, regular seminars and workshops on innovation, technology and entrepreneurship are conducted across the state of Goa. It is the endeavour of Goa State Innovation Council to bring women and the marginalized sections of the society to the mainstream through the power of innovation.

The women-centric workshops are designed especially, to benefit women who have bright ideas that can be scaled into independent business enterprises. During the various seminars and workshops, Goa State Innovation Council was able to reach out to several women and helped them understand the process of launching a start-up, as well as, briefed them about the various government schemes from which they can benefit.

**Table 11.1: Schedule for Women Centric Workshop**

SR. NO.	TOPIC	DURATION
01	Introduction of Goa State Innovation Council & Bootcamp	15 MINS
02	Activity Based on Creativity	45 MINS
03	Tea Break	15 MINS
04	Group Activity – Ideation with a focus on problem-solving	45 MINS
05	How to convert an Idea into an Enterprise?	30 MINS
06	Various Government Funds and Schemes assistance for starting up Speaker	30 MINS

## 11.2

# SPEAKERS

27th FEB 2019

Women Centric Workshop on Innovation at Home Science College, Campal

1) Ms Poonam Shirsat

2) Mrs Suwarna Surlekar

Total Participants: 81

28th FEB 2019

Women Centric Workshop on Innovation at Carmel College for Women, Nuvem

1) Ms Poonam Shirsat

2) Mrs Suwarna Surlekar

Total Participants: 90

## 11.3

# STATUS REPORT

With the core objective of stimulating women participation in driving innovation and entrepreneurship, Goa State Innovation Council conducts women-centric workshops in the state. The primary motive of these workshops is to guide women towards identifying social gaps and functional problems around them, ideating about the remedies and driving technology-led innovation to present possible, marketable solutions to the problems.

The workshops also focus on protecting the claim on innovations and building a business enterprise by launching a start-up. Two sessions of women-centric workshops were organized in the FY 2018-19, which saw a participation of 150+ women.

The interactive workshop program helped the participants in answering their queries and clearing their doubts. Moreover, the participants were apprised of various start-up initiatives and women-centric schemes run by the government of India to encourage more and more women to pursue innovation and entrepreneurship.



**Figure 11.3.1: Women centric workshop conducted at Carmel College for Women, Nuvem**



**Figure 11.3.2: Women centric workshop conducted at Home Science College, Campal**





**Figure 11.3.3: View of audience**



**Figure 11.3.4: View of audience**

# 12

## SENSITISATION WORKSHOP ON STEM EDUCATION

# 12.1

## INTRODUCTION

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.

Goa State Innovation Council takes the initiative of approaching big and small, government-run and private schools across regions to help school authorities envision and embrace a technology-driven future. Goa State Innovation Council has achieved significant success in this area through scores of dedicated workshops on STEM education in numerous schools in Goa.

# 12.2

## SPEAKERS

**Table 12.2: Sensitisation Workshops conducted by GSInC**

SR. NO.	DATE	SCHOOL	TIME	SPEAKERS
01	5th Dec 2018	Dr K B Hegdewar School	10 am to 12 pm	Mr Ramchandra Salgaonkar Mrs Poonam Shirsat
02	11th Dec 2018	Government H S, Sirigao	9 am to 11 am	KD Bhatt Mrs Poonam Shirsat
03	14th Dec 2018	Government H S, Valpoi	10 am to 12 pm	Mr B S Revankar Mrs Poonam Shirsat
04	15th Dec 2018	Don Bosco HS, Calangute	10 am to 12 pm	Mr B S Revankar Mrs Poonam Shirsat
05	17th Dec 2018	Government H S, Dhargal	10 am to 12 pm	KD Bhatt Mrs Poonam Shirsat
06	18th Dec 2018	Shri Mallikarjun School, Canacona	10 am to 12 pm	KD Bhatt Mrs Poonam Shirsat
07	20th Dec 2018	Guardian Angel School, Sanvordem	10 am to 12 pm	KD Bhatt Mrs Poonam Shirsat
08	2nd Feb 2019	New English High School, Kakoda	10 am to 12 pm	B S Rewankar Sushant Surlekar
09	6th Mar 2019	Almeida High School, Ponda	10 am to 12 pm	B S Rewankar Poonam Shirsat
10	7th Mar 2019	Government High School, Aquem	12 pm to 2 pm	Ramchandra Salgaonkar Poonam Shirsat
11	11th Mar 2019	Govt High School, Davorlim	8 am to 10 am	Mrs Suwarna Surlekar Poonam Shirsat
12	13th Mar 2019	Govt High School, Guirim	12 pm to 2 pm	Shri Maxwell Rodrigues Ms Poonam Shirsat
13	27th Mar 2019	Government High School, Morpirla	10 am to 1 pm	Key Note Address: Shri Jose Manuel Noronha Speakers: Mr D S Prashant & Ms Poonam Shirsat

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## 12.3

# STATUS REPORT

The Goa State Innovation Council team has surpassed all expectations in the area of conducting sensitisation workshops on STEM (Science, Technology, Engineering & Mathematics) by reaching out to more than 1000 students through successful workshops across 14 schools spread across various parts of the Goa.

With a clear mandate to launch uniform efforts across various regions and localities, the Goa State Innovation Council teams identified schools in the vicinity of large cities such as Ponda, Margao, Mapusa, Panjim, as well as, far-flung villages including Valpoi, Cujira, Guirim, Aquem, Sirigao among others. STEM education has emerged as a highly potent solution for fostering innovation among school children in a fun and engaging manner.

Keeping in step with the world driven by emerging technologies, Goa State Innovation Council finds it necessary that school students must be introduced to a modern way of teaching, with enough exposure to scientific learning and acquaintance with technology. The sensitisation workshops aim to address the school authorities in adopting the STEM education program and take necessary steps towards creating the required infrastructure to support STEM education.

A definite advancement in this area has been made by Goa State Innovation Council, and a lot of schools are contemplating to add STEM education to their curricula.



**Figure 12.3.1: Sensitisation Workshops conducted by GSIInC**





**Figure 12.3.2: Sensitisation Workshops conducted by GSInC**

# 13

## ORIENTATION PROGRAM FOR SCHOOL TEACHERS

# 13.1

## INTRODUCTION

For a seamless drive to foster the spirit of innovation and entrepreneurship among the students of Goa, Goa State Innovation Council conducts periodic orientation programs for school teachers.

The objective of the orientation programs is to apprise teachers about the emerging trends and updates from the world of start-ups and technology. It is important that teachers disseminate information in the right context and help students take the right steps towards their journey to innovation and entrepreneurship. The orientation programs also cover any recent scheme or opportunities for the students in the innovation and start-up space.

Goa State Innovation Council conducted two successful orientation programs for school teachers. The first session was conducted on 8th August, 2018 at Ravindra Bhavan in Panaji. The second session was conducted on 9th.

August, 2018 at Ravindra Bhavan, Margao. The two orientation programs saw a participation of over 357 teachers from various schools across Goa. During the orientation programs, teachers were informed about the role of Goa State Innovation Council in promoting the culture of innovation and entrepreneurship at all levels.

The teachers were also made informed about the innovations driven by school children from all around the world, and the role of teachers in fostering the spirit of innovation and creativity was reinforced. The interactive sessions helped teachers in raising relevant questions and clarifying their doubts.

# 13.2

## SCHEDULE

Orientation programme for School Teachers

North Goa Programme (8th August 2018) at  
Sanskriti Bhavan, Department of Arts &  
Culture, Panjim, Goa

South Goa Programme (9th August 2018) at  
Ravindra Bhavan, Margao

**Table 13.2: Orientation Program Schedule for School Teachers**

TIME	DURATION	SESSION	DURATION
10:00 AM - 10:15 AM	0:15	Inauguration	Inauguration of the Orientation Programme
10:15 AM - 10:30 AM	0:15	Key Note Address Speaker	What is Innovation? Shri Jose Manuel Noronha - Chairman, GPSC & GSInC
10:30 AM - 10:45 AM	0:15		Tea Break
10:45 AM - 11:00 AM	0:15	Talk Speaker	Understanding Creativity Prof Raghuveer Vernekar - Chairman, GCCl-Educom
11:00 AM - 11:15 AM	0:15	Talk Speaker	Introduction to INSPIRE Awards Shri Nagaraj Honnekeri - State Project Director for Goa, Sarva Shiksha Abhiyan
11:15 AM - 11:30 AM	0:15	Talk Speaker	How I set up my innovative company? Shri Gajanan Nagarsekar - Managing Director, Kallows Engg India Pvt Ltd
11:30 AM - 11:45 AM	0:15		Tea
11:45 AM - 12:00 PM	0:15	Talk  Speaker	Idea generation and usage of technology by Students  Smt Suvarna Surlekar - Director, Codewell Computers

TIME	DURATION	SESSION	DURATION
12:00 PM - 12:15 PM	0:15	Talk Speaker	Intellectual Property- Today's need Smt Shalini Menezes – Founder, Sim Sim Law consultants
12:15 PM 12:45 PM	0:30	Action Plan Speaker	Action Plan - The Way Forward Shri D. S. Prashant - General Manager, Centre for Incubation and Business Acceleration



**Keynote address by the Chairman**



**Inauguration of the Orientation Programme**



**View of Audience**



**View of Audience**



# 14

## FINANCE AND ACCOUNTS OF THE COUNCIL

# 14.1

## GRANTS AND FUNDING

Funds recieved from the government

**Table 14.1: Grants and Funding Account of the Council**

SR. NO.	DATE	AMOUNT	ORDER NO.
01	14/06/2018	10,00,000.00	3-191-2011/14-15/STE-DIR/GSInC/Part/268
02	17/12/2018	20,00,000.00	3-191-2011/14-15/STE-DIR/GSInC/Part/824

# 14.2

## UTILISATION CERTIFICATE

Utilisation Certificate submitted to DST

**Table 14.2: Utilisation Certificate of the Grant**

SR. NO.	AMOUNT	ORDER NO.	RECEIPT NO.
01	10,00,000.00	3-191-2011/14-15/STE-DIR/GSInC/Part/268	8680
02	20,00,000.00	3-191-2011/14-15/STE-DIR/GSInC/Part/824	8879

# 15

OTHER ACTIVITIES  
MATTER DEALT WITH  
THE COUNCIL

# 15.1

## IDEA TO START-UP SESSION

Goa State Innovation Council organized the "Idea to Start-Up Interaction Session". The workshop, was designed to provide innovators an opportunity to register their ideas on the Virtual Innovation Register and source the required support to commercialise their ideas.

The Interactive session created an opportunity for the participants to interact with patent lawyers and understand the existing Idea Protection policies. An orientation on the process of converting the idea into a commercial venture along with the available support was also deliberated during the interaction.

The workshop was opened for start-ups, aspiring entrepreneurs, innovators and students registered under the Virtual Innovation Register. There was no participation fee for the workshop.

**Table 15.1: Schedule for Idea to Start-Up Session**

SR. NO.	TIME	TOPIC	SPEAKER
01	9:30 am - 10:00 am	Registration	
02	10:00 am - 11:30 am	Process of converting Ideas into Startups	SESSION 01 : Shri B S Revankar Ex-Director NITK - STEP Surathkal
	11:30 am - 11:45 am	Tea Break	
03	11:45 am - 12:15 pm	Key Note Address	Shri Jose Manuel Noronha Chairman - GPSC, GSInC
04	12:15 pm - 1:00 pm	Intellectual Property -Process of protecting the ideas	SESSION 02 : Smt Gautami Raiker Founder - Lawmate.in
05	1:00 pm - 1:30 pm	Government Schemes of assistance	SESSION 03 : Shri Tushar Sawant Community Manager - FIIRE
	1:30 pm - 1:45 pm	Support expected from GSInC	Shri Sudip Faldesai Project Officer - GSInC
			Feedback



**Keynote address by the Chairman**



**Session on process of converting Ideas into Startups**

## 15.2

# GOA STATE INNOVATION COUNCIL WEBSITE LAUNCH

The Goa State Innovation Council website was launched by former Chief Minister of Goa, Late Shri Manohar Parrikar on 5th July 2018.

The highlights of the website include the Virtual Innovation Register feature that allows any idea owner to submit their ideas or prototypes and seek its scaling up and marketability potential. The ideas registered on VIR remain a property of the idea owner.

Other features of the website include Chief Minister's Startup Challenge, Student Project Competition, Women Centric Seminar & Workshops, STEM Education, Bootcamps in colleges and Faculty Development Programs.

The overall aim of the website is to cultivate a strong culture of innovation, entrepreneurship and start-ups across the state of Goa.



**GSInc Website Launch**



# 15.3

## THINKING SOCIAL SESSION

Goa State Innovation Council organized the 'Thinking Social Session' on 25th of January 2019 at the Don Bosco College of Engineering, Fatorda, Goa. Created with an aim to make a national impact on social entrepreneurship, a series of one day seminars titled 'Thinking Social', are organized across India in collaboration with top institutions.

The seminar, in collaboration with TATA NEN (IIM Calcutta), introduced the participants to the concept of social entrepreneurship in the rapidly evolving Indian economy.

**Table 15.3: Schedule For Thinking Social Session**

TIME	TOPIC	SPEAKER
10:00am to 10:30am	Inaugural Session Key Note Address by Chief Guest Address by Guest	Chief Guest - Shri J M Noronha, Chairman - Goa Public Service Commission & Chairman - Goa State Innovation Council.  Representatives from the Tata Groups, IIMCIP and the University.
10:30am to 11:00am	Tea Break + Networking	
11:00am to 11:30am	Opening Speech – Macro View on Social Entrepreneurship	Shri Anish D'Souza - Founder - SUN 360
11:30am to 12:00pm	Translating the vision - Sharing by a Social Entrepreneur	A social entrepreneur from IIM Calcutta
12:00pm to 1:00pm	Creating a Social Entrepreneurship Ecosystem	IIM Calcutta Innovation Park Faculty
1:00pm to 1:30pm	Concluding Session	



**Keynote address by the Chairman**



**View of the Audience**

## 15.4

### IMPORTANCE OF IPR IN ASSOCIATION WITH PHD CHAMBERS



IPR Session in Association with PHD Chambers

# 15.5

## AWARENESS FOR VIR

### AT 4TH INDIA INTERNATIONAL SCIENCE FESTIVAL 2018



**VIR Participation Certificate at 4th India International Science Festival 2018**

# 16

GOING FORWARD

PLANS

2019 - 2020



## 16.1

### RAPID PROTOTYPING LAB

To help innovators from all walks of life transform their ideas into tangible models or prototypes, Goa State Innovation Council will soon be launching its state-of-the-art Prototyping Lab at its premises, Goa State Innovation Council Secretariat, Don Bosco College of Engineering, Fatorda.

The prototyping lab will be mainly powered by an advanced and powerful 3 D Printer capable of printing the most complex of designs with perfect precision. More information about the Prototyping Lab can be obtained [here](#).

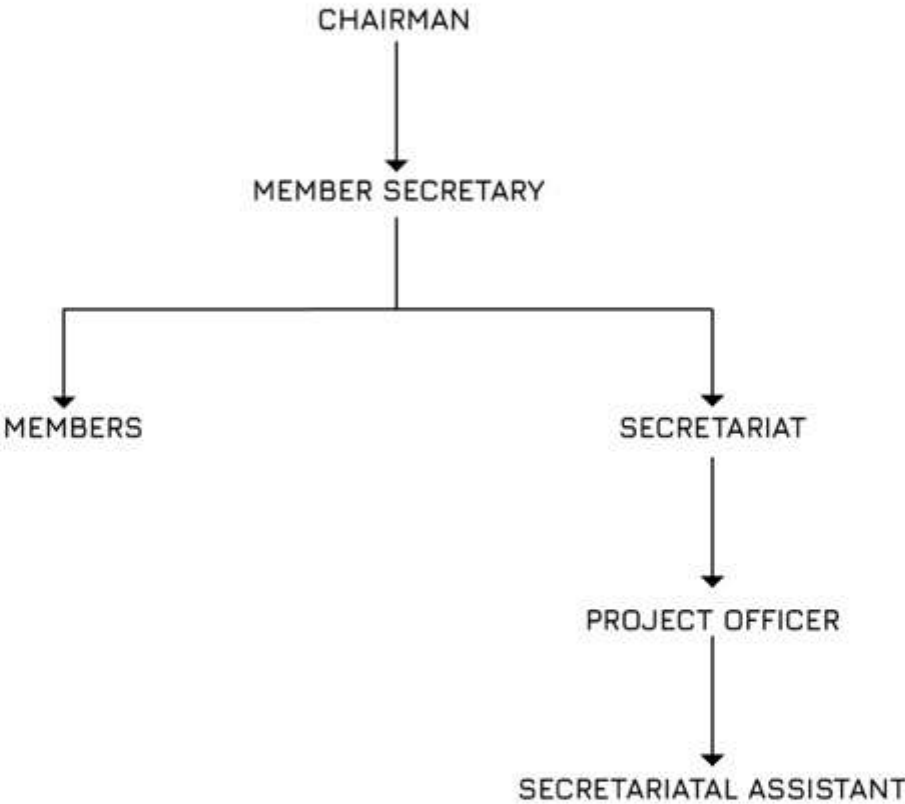
## 16.2

### 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.

# ANNEXTURE I

## ORGANISATIONAL CHART FOR THE COUNCIL





# ANNEXTURE II - A

## LIST OF APPLICATION FOR GOA'S YOUNG INNOVATORS AWARD CATEGORY 01

CODE	PROJECT TITLES
CYIA/Cat1/01	Using a nail cutter as a key chain.
CYIA/Cat1/02	Using exercise bicycle to pump water from the underground tank
CYIA/Cat1/03	Using a wall clock as a timer for field activities like watering the field
CYIA/Cat1/04	Road water harvestation, a need for the future. Due to natural curvature of roads the rain water which ultimately left unutilized is collected at the road side pits and then is filtered through coarse filtration techniques and then collected in an underground tank
CYIA/Cat1/05	A green house is a concept wherein the heat or basically greenhouse gases that gets trapped and then the plants take in the carbon dioxide and liberate oxygen. This is the principle we are using to make a machine that takes in CO <sub>2</sub> and give out O <sub>2</sub> by the process of photosynthesis
CYIA/Cat1/06	This machine works on the principle of a self-twisting rope. The material will first be taken on three hooks (generally) and twisted. It is then braided with the help of a stencil, and turned into strong and usable rope
CYIA/Cat1/07	It is a model of Tide detector, when the sea water level rises , it gives out an alerting sound which can alert the lifeguards as well as the people, of the rising sea water level
CYIA/Cat1/08	Development of oil absorbing biofilters for efficient removal of oil spills
CYIA/Cat1/09	Conversion of waste biomass into fuel using pyrolysis. In this project we have used waste paper, saw dust and coir as biomass. In pyrolysis the biomass is heated to a temperature of 400 to 600 degree Celsius in absence of oxygen. The products formed include syn gas, bio oil, bio char. syn gas is used as fuel, biochar formed can be converted into activated charcoal with some chemical treatment.

CODE	PROJECT TITLES
GYIA/Cat1/10	Preparing Organic compost using wet waste i.e. leftover mid day meals which are being served to the students in the school using larvae of Black Soldier Fly
GYIA/Cat1/11	Basically it is a smart house,where in new technology is used to run the house
GYIA/Cat1/12	Our project is Manual, Electric & Remote control adjustable Mike
GYIA/Cat1/13	Ultra Sound Obstacle Detector - Blind AID
GYIA/Cat1/14	A Fish Feeder Robot for Aquaculture
GYIA/Cat1/15	If a IV drip system is not stopped or fluid bag replaced as soon it is over, can lead to severe complications for the patient, in some cases Fatal. Intravenous Therapy or IV Treatment is the infusion of Fluids directly into a vein. Intravenous simply means "within Vein". The IV Therapy being the fastest way to correct fluid Imbalances, to deliver medicines, or for blood transfusions. is needed to be used in extremely severe and critical cases.
GYIA/Cat1/16	Our project deals with how sustainable development can be achieved in village to improve living conditions of a village.in areas like in farms like different irrigation systems, drip , sprinkler system, poultry farms, environment, like electrostatic precipitator ,different energy forms can be converted into one another like piezo electric roads, water harvesting system,wind mills, solar panels etc.
GYIA/Cat1/17	Breath analyser car
GYIA/Cat1/18	Our project deals with how sustainable development can be achieved in villages to improve living conditon of villages. our project mainly deals how piezo electricity can be generated through roads.
GYIA/Cat1/19	Title:- Hippo Roller.
GYIA/Cat1/20	Title:- Wheel to collect a Trash in water.
GYIA/Cat1/21	My project is a Automatic cycle . Using a 12 volt motor and a bike battery
GYIA/Cat1/22	Title:LPG refrigerator

CODE	PROJECT TITLES
CYIA/Cat1/23	Management of Melon Fly.
CYIA/Cat1/24	Improved production of Elephant foot yam
CYIA/Cat1/25	Heliconia a profitable intercrop in coconut
CYIA/Cat1/26	To study the tolerance of rice varieties to salinity
CYIA/Cat1/27	To select high yielding medium duration rice varieties
CYIA/Cat1/28	Smart phone is a project to display how a common can utilize the natural resources of human intelligence to make his/her home energy efficient and self sufficient.
CYIA/Cat1/29	Automatic street light sensor and photoelectric sensor.
CYIA/Cat1/30	Laser alarm
CYIA/Cat1/31	Residential House Lights glow ON with the help of the Dynamo.
CYIA/Cat1/32	Interior design projector
CYIA/Cat1/33	Title: Use of lichens as natural indicators
CYIA/Cat1/34	Remote control suitcase
CYIA/Cat1/35	Title: Use of sun to generate fresh water.
CYIA/Cat1/36	McRover
CYIA/Cat1/37	Hay trigonometry Mathematics
CYIA/Cat1/38	We wish to develop a device to control speed of vehicles in speed restricted zone on road. the device will certainly help to reduce accidents due to over speeding on road.
CYIA/Cat1/39	Use of Medicinal Plants to stop aging.

CODE	PROJECT TITLES
CYIA/Cat1/40	Use of Hydroponics in my Village
CYIA/Cat1/41	Fire Extinguishing Robot
CYIA/Cat1/42	Green cafe
CYIA/Cat1/43	Plastic Waste Management Mini Eco-System - (PWMMES)
CYIA/Cat1/44	Sustainable production of Rice
CYIA/Cat1/45	To study the path of light through optical material using light box.
CYIA/Cat1/46	Our project is based on the process of waste water treatment plant. this project explains people that how the untreated water which is released from the factory gets converted to the water which is suitable for drinking , helps in irrigation , farming and many other things.
CYIA/Cat1/47	Recycling of Washing Machine Water
CYIA/Cat1/48	Smart Dustbin.
CYIA/Cat1/49	Medicinal Plants around my school
CYIA/Cat1/50	I have created an organic bio filter using peels of fruits (oranges), corn cob, clay pieces, herbs (mint, coriander). This filter can clean water upto 90 percent. This uses different biodegradable wastes.
CYIA/Cat1/51	Alcohol Detector -The Life Saver (AD - TLS)
CYIA/Cat1/52	I have made an obstacle avoider car, as it is very useful for detecting obstacles. It can also be used for wheelchair.
CYIA/Cat1/53	My project is using an ultrasonic sensor with arduino to sense objects and project it on the screen.
CYIA/Cat1/54	I have made an obstacle avoider which avoids obstacles that comes in it's way.

# ANNEXTURE II - B

## LIST OF APPLICATION FOR GOA'S YOUNG INNOVATORS AWARD CATEGORY 02

CODE	PROJECT TITLES
CYIA/Cat2/01	Green Roofs
CYIA/Cat2/02	Fish & Farm
CYIA/Cat2/03	Normally atoms in matter are in constant vibrations. Heat is a form of energy, so when the matter is heated the atoms get energy and start vibrating more.
CYIA/Cat2/04	Kitchen waste is one of the best sources that can be used to produce and interim renewable bio fuel.
CYIA/Cat2/05	Lots of energy is generated when vehicle passes over the speed breakers.
CYIA/Cat2/06	My projects is Automatic room controller
CYIA/Cat2/07	Bio plastics take less time to break down-they are easily biodegradable and are renewable since it is made from biomass which is available all over the globe in plenty.
CYIA/Cat2/08	TO GENERATE POWER THROUGH FOOTSTEPS AS A SOURCE OF RENEWABLE ENERGY
CYIA/Cat2/09	Cash from trash
CYIA/Cat2/10	My project is an attempt to make a innovative machine which will help dig a well and throw the mud at a distance so that the well does not collaps in future because of the pressure around the well.
CYIA/Cat2/11	My project is an attempt at bringing a help to the poor farmers to make it easy for them to spread fertilizers over their fields, which will help them save time and energy along with saving man efforts.

CODE	PROJECT TITLES
GYIA/Cat2/12	<p>The basic purposes of my project is:</p> <ol style="list-style-type: none"> <li>To make my friends understand the basic principles and applying science in our lives.</li> <li>To provide a useful source of learning experiences for my friends.</li> <li>To provide a manual this may be used as a partial basis of instruction in science teaching methods for workshops and courses for the in-service training of teachers.</li> <li>To provide a basis for the assembling of a loan collection of teaching kits containing simple equipment for science.*</li> </ol>
GYIA/Cat2/13	The project is an attempt to make a more environment friendly alternative to plastic bottles.
GYIA/Cat2/14	An attempt to provide medical aid / food to victims trapped in trenches / inaccessible places
GYIA/Cat2/15	Food security through aquaponics
GYIA/Cat2/16	Mopping car
GYIA/Cat2/17	Drone
GYIA/Cat2/18	Take piece of wood and glue the small piece upright near one end of the larger piece. Hammer nail into the other end of the wooden base. wind the copper wire around the nail. wrap the cloth around the saw blade.
GYIA/Cat2/19	Smart Water Conservation System.
GYIA/Cat2/20	Vaccum eraser pen or machine.
GYIA/Cat2/21	Carbon dioxide cleaning machine.
GYIA/Cat2/22	A digital microscope and a laser microscope - using lens of laser light. This can be used to test blood group of person. RBC count, etc.
GYIA/Cat2/23	This project is about a smart city where we use renewable sources instead of non renewable sources
GYIA/Cat2/24	A tab with a printer incorporated in it.

CODE	PROJECT TITLES
CYIA/Cat2/25	If a person wants to throw garbage and come closer to the dustbin, the lid of the dustbin will automatically open and close after the human goes away from the dust bin.
CYIA/Cat2/26	Charging Mobile without Free Energy
CYIA/Cat2/27	The name of the project is Ceiling fan cleaner.
CYIA/Cat2/28	Smacon Project
CYIA/Cat2/29	the traditional methods used for preserving. The different techniques used to preserve food are displayed in the model.
CYIA/Cat2/30	My project is a hydrogen generator which uses electrolysis to generate hydrogen from sea water.
CYIA/Cat2/31	The project is all about the electrical air cooler using ice and cells.
CYIA/Cat2/32	To Study the variation in the range of jet of water at different angle with horizontal surface.
CYIA/Cat2/33	Trapping the Gamma rays from the Sun and with help of a fluoroscope and generate electricity.
CYIA/Cat2/34	Normally cars, trucks and other automobiles burn petrol and diesel as fuel to produce energy, release smoke and cause air pollution. Air pollution brings various diseases to human and other living organisms in earth. Automobiles also give out greenhouse gases, which if left uncontrolled would melt ice caps and kill animals that live there and also flood the low lying areas. So, we need an alternative source of energy for automobiles to overcome air pollution and global warming caused by them.
CYIA/Cat2/35	A creative step to convert your daily kitchen waste to organic manure.
CYIA/Cat2/36	Making a model active volcano.
CYIA/Cat2/37	Water is the most precious resource for the human as well as for the animals. Water is finite and unprotected natural resource. The use of water affects the quality of this resource itself and the nature in a broader sense. SEA, RIVER and LAKE water is valuable for the environment, irrigation and drinking. It is important to manage the supply and disposal of water wisely holding that clean water continued to be available to future generation at a moderate cost. In the absence of
CYIA/Cat2/38	



CODE	PROJECT TITLES
	garbage disposal facilities the practice of dumping garbage in to nearby water bodies has become quite common in recent years and has posed long term negative impacts both on biodiversity of the area and as well as on the local environment. So in order to get rid from these problem water cleaning boat is introduced where in the boat will collect all the waste which are found floating on water bodies.
GYIA/Cat2/39	Power Generation Using Turbo Ventilators
GYIA/Cat2/40	<p>DRONE</p> <p>AIM: create a drone</p> <p>requirements :frame, motor x 4 no. , flight control board, radio transmitter and receiver, propeller x 4 no. 2 no CW, 2 CCW , batteries *</p>
GYIA/Cat2/41	Solar Irrigation
GYIA/Cat2/42	Don't Waste your waste
GYIA/Cat2/43	My project is a robot firebrigade.
GYIA/Cat2/44	<p>Ultrasonic sensor blind guide.</p> <p>This is a waste water collector. This project uses a simple net to collect waste floating in water.</p>

## ANNEXTURE III

### LIST OF EQUIPMENTS PURCHASED FOR RAPID PROTOTYPING LAB AT DON BOSCO COLLEGE OF ENGINEERING, FATORDA, GOA

SR. NO.	LIST OF EQUIPMENTS
1	Professional Angle
2	Grinder
3	Circular Saw
4	Smart Drill Kit
5	Junior Hacksaw
6	Screw Driver Set
7	Micro Chisel Set
8	Plier Set
9	Hammer set
10	C Clamp
11	Hardened Metric Allen Key Set
12	Combination Spanner
13	30 Pc Ratcheting
14	Screwdriver set
15	Baby Vice Clamp
16	Swastik Stainless Steel Adjustable Spanner Wrench (8 inches)
17	Hot Melt Glue Gun
18	Measuring Tape 5meters
19	Digital Tester
20	Digital multimeter
21	46 In 1 Pcs Tool Kit & Screwdriver and Socket Set
22	Flashforge Adventurer 3 3D Printer
23	9060-80W Laser Cutting /Engraving Machine





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