

# DCT's Dhempe College of Arts and Science, Miramar-Goa

# A report of the activities conducted by Institution's Innovative Council 2019-20

#### INSTITUTION'S INNOVATION COUNCIL

The Ministry of Human Resource Development (MHRD) Govt. of India has established 'MHRD's Innovation Cell (MIC)' to promote Innovation amongst all Higher Education Institutions (HEIs). The MHRD's Innovation Cell supports the creation of 'Institution's Innovation Council (IICs)' that would inspire and nurture young students to promote innovation in the Institution and around the campus. In view of the same, the college has formed the Institution's Innovation Council of DCT's Dhempe college of Arts and Science, Miramar in 2019.

The council comprises of four external members (two start-up/Alumni entrepreneurs, an industrial expert and a member of an incubation centre), 15 faculty members and 11 student members:

Name of the member	Key role
Dr. Vrinda Borker	Head of the Institute
Mrs. Deepa Audi	President
Mr. Sanjay R. S. Priolkar	Technical expert from nearby industry
Mr. Ravindra A. Manerkar	Representative from nearby incubation centre
Mrs. Shobha Kamat Tarcar	Alumni entrepreneur from the host institution
Mr. Smitesh Talawadekar	Alumni entrepreneur from the host institution
Dr. Manoj Ibrampurkar	Vice president
Dr. Ramumurthy	Convener
Dr. Karuna Singh	IPR activity coordinator
Dr. Purnima Ghadi	Start-up activity coordinator
Dr. Swati Pawar	NIRF coordinator
Dr. Avelyno D'Costa	ARIIA coordinator
Mr. Mohit Suktankar	Social media coordinator
Dr. Shilpa Samant	Internship coordinator
Ms. Teja Kundaikar	Innovation activity coordinator
Dr. Samantha Fernandes	Member
Dr. Preethi Poduval	Member
Dr. Miskil S. Naik	Member
Dr. Ashish V. Prabhugaonkar	Member
Dr. Digamber G. Porob	Member

#### **List of Student Members**

Name of the member	Key Role/ Position assigned in IIC
Mr. Vinit Nadkarni	Student Innovation Coordinator
Mr. Sameer Ismail Sheikh	Student Internship Coordinator
Mr. Shivam Subhash Gawas	Student IPR Coordinator
Ms. Harsha Nagesh Das	Student Start-up Coordinator
Ms. Gandha Anil Gharse	Student Social Media Coordinator

Mr. Soham Naik	Student Member
Mr. Chandraprakash Mishra	Student Member
Ms. Nirja Bhatt	Student Member
Mr. Harshal Santosh Gosawi	Student Member
Mr. Anand Raj	Student Member

Under the flagship of the Institution's innovation council, the college has conducted various activities in the field of creativity and innovation. Besides the calendar driven activities proposed by MHRD, the college IIC also conducted various self-driven activities and participated in MIC driven activities during the four quarters of 2019 - 2020. The Institution's innovation council strives to be a platform to promote innovative ideas, creative thinking and entrepreneurship skills in young talented students.



Faculty and external members of the Institution's Innovation council



Student members of the Institution's Innovation council

The Institution's Innovation Council has conducted several activities and also encouraged the various departments to organize activities related to Innovation, entrepreneurship, and product design.

# 1. My Story - Innovator's Life & Crossroad Motivational Speak

**Dr. A. Natu from IISER** Pune, delivered a lecture on "Greener aspects of Drug discovery," on 14<sup>th</sup> August 2019, from 3 - 4 pm, at Dhempe College of Arts &Science, Miramar – Goa.

Dr Natu did his post-doctoral research in Germany with a Deutscher Akademischer Austauschdienst [DAAD] (German Academic Exchange Service) scholarship. He was a scientist at National Chemical Laboratory, Pune till 2007 and has been associated with IISER Pune right since its inception. He has also been closely involved with India's representation at Chemistry Olympiads, accompanying the Indian contingent to several editions. He has been instrumental in fostering bilateral exchange of scientists and researchers between India and Germany, and facilitating mobility of Indian students to Germany for further studies.

Dr. Natu motivated the students of T.Y.B.Sc. and M.Sc. Chemistry to venture into the greener aspects of drug delivery and inspired them to be innovative scientists of the future generation.



# 2. My Story - Entrepreneur's Life & Crossroad

#### **Guest lecture:**

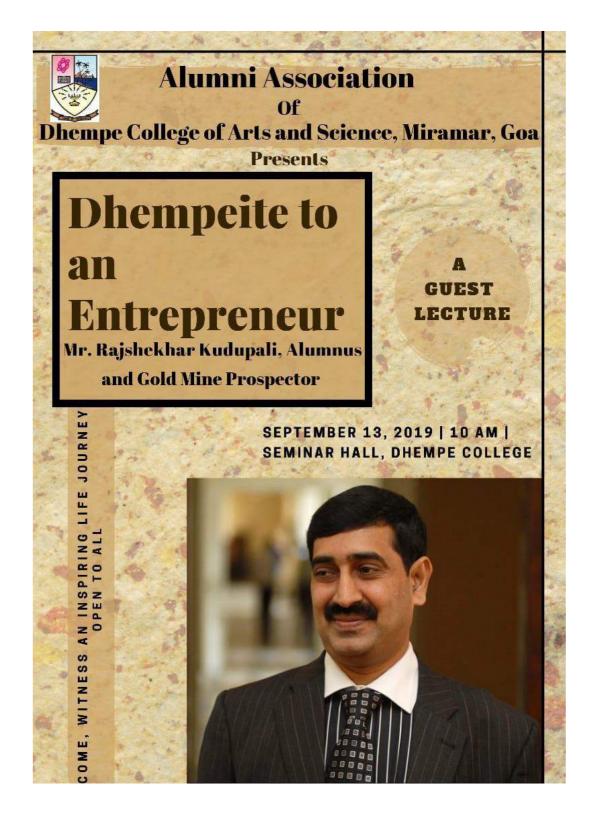
# "Dhempeite to an Entrepreneur" By Mr. Rajshekhar Kudupali

The Alumni Association of the college along with the Geology Department, organised a lecture on 13<sup>th</sup> September 2019, titled "**Dhempeite to an Entrepreneur**". This lecture was delivered by **Mr. Rajshekhar Kudupali**, **Alumnus and Gold mine Prospector based in Tanzania**. It was presided over by the Principal Dr. Vrinda Borkar and attended by the alumni, staff and students of Dhempe College. The lecture was held at the Seminar hall of Dhempe College at 10 am and was compered by Ms. Clarinda Dias, Secretary (Alumni Association) and Head, Department of English,

Dhempe College of Arts and Science. It was attended by about 110 students.

Mr. Kudupali delivered an interesting lecture by interactively laying out his journey right from a student at Dhempe College to acquiring the CEO position at multinational companies, to being an entrepreneur procuring 11 mine prospecting leases in Tanzania. His life journey was inspiring, thus motivating the students to achieve greater heights in life. He encouraged the students to use the easily available resources and facilities to acquire various personality enhancing and competitive skills, all in addition to their Degree. He emphasised that such skills would take them places rather than just having a degree in the subject. He also drew the attention of the students to his student life at Dhempe, explaining how from a shy student in the FYBSc class he became a Student Council member thus developing leadership and time-management skills. Finally, he urged the students to take life in their stride, learning new things each and every day while constantly pushing themselves to do better. Apart from this, he also briefed the students about his current business and the difficulties and benefits of being an Entrepreneur.

The lecture concluded with several questions from the audience to which the esteemed speaker responded effectively. Dr. Manoj Ibrampurkar, Assistant Professor (Geology) proposed the vote of thanks. It was an enlightening lecture, especially for the students as they got a glimpse of the professional world from a Global businessman and Entrepreneur and also an inspiration to become great achievers!



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# 3. Competition on Design thinking and Problem Solving

# **Green Entrepreneurship**

"Green business idea: an initiative to encourage innovative green ideas"

The Smith'sonian Club under the department of Economics on the occasion of Green day on 29<sup>th</sup> August 2019 organised a "**Green Entrepreneurship**" competition wherein the students had to present their **Green business idea**. The aim of the event was to encourage entrepreneurial qualities and innovative green ideas among students. A total of 12 teams participated for the same. The first place was shared by 1) Mr. Soham Naik and 2) Mr. Sameer Sheikh and Cyrus. Mr. Veenit Nadkarni won the second place and Jason Fernandes and Rinky won the third place.









# 4. Field / Exposure Visit to Industry

#### Industrial Visit to Cipla Pharmaceutical Verna, Goa

An industrial visit to Cipla Pharmaceutical Industry, Verna Goa was organized by the Department of Biotechnology, Dhempe College. The students of T.Y B.Sc. Biotechnology were taken to the research and development section of the industry. They saw the different units such as container unit, collection unit, quarantine unit, manufacturing unit and packaging unit.

In particular the students witnessed production and packaging of a metered dose inhaler (MID) which is used in the treatment of asthma. The students were guided by the supervisor to different subsections of the R&D section. The students learnt the process of drug manufacture and processing and benefitted greatly from the industrial visit exposure.



#### Industrial visit to Goa Dairy Pvt. Ltd., Ponda – Goa.

A field trip was conducted to Goa dairy Pvt. Ltd. for the students of T.Y.B.Sc. Biotechnology. Goa state co-operative milk producers union Goa dairy was established in year 1984. It is a member owned federal body of 178 small dairy co-operative socities all over Goa. The in charge of the plant taught the students about the working of the unit and the processes involved in manufacture, sterilization, testing and packaging of milk. The supervisors also enlightened the students about the manufacture of ice-creams and the steps involved in obtaining different shapes and flavours of ice-cream. Overall, the field was a very fruitful and informative experience.



# 5. Hands-on session on self-irrigating pots from used pet bottles and Workshop on commercial flower arrangement

Mr. Miguel Braganza, a visiting faculty and a renowned agriculturist, conducted a hands-on session on "**making of self-irrigating pots from used pet bottles**" for the students of S.Y.B.Sc. Biotechnology on 23<sup>rd</sup> July 2019. Mr. Braganza taught the students innovative ways to transform used pet bottles into self-irrigating pots to grow plants in a lesser space, with minimal consumption of water.







#### Flower Arrangement Workshop by Mr. Daniel D Souza

A Workshop of Professional Flower arrangement was organized by Miguel Braganza in the Department of Biotechnology of Dhempe College. The resource person for the workshop was Mr. Daniel D Souza, a landscape designer and leading entrepreneur in Goa, who delivered a talk on Flower arrangement in a professional manner to S.Y students. He highlighted the factors that are important for flower arrangement such as balance, contrasting colors, proportion, transition etc. He elaborated on the types of flower arrangements and motivated the students to consider professional flower arrangement as a career opportunity/ business. Mr. Daniel D Souza encouraged students to form groups and arrange the flowers, props and material which he provided. He further gave tips and suggestions to the participants. The workshop was fruitful and students were benefitted from his expertise.









# 6. A visit to IGNITE - EDC Innovation Hub Panaji

The following students and faculties visited the IGNITE - EDC Innovation Hub Panaji on 23<sup>rd</sup> December 2019.

Sr. No	Name of Student	Roll No	Department
1	Soham Naik	19374	Biotechnology
2	Tejas Lotlikar	103	
3	Vibhav Pissurlenkar	106	Computer Science
4	Shwetakshi Mishra	19372	
5	Projyoti Kuttikar	19386	
6	Kiran Naik	19385	Biotechnology
7	Pandurang Bhagat	18004	
8	Anish Dhopesuwarkar	31	Economics

Sr.No	Faculty Name	Department
1.	Dr. Miskil Naik	Physics
2.	Ms. Teja Kundaikar	Computer Science
3.	Ms. Manisha Mhalsekar	Chemistry
4.	Dr. Shilpa Bhosle	Botany

Number of Students: 08 Number of Teachers: 04

Total: 12

The session started with the talk on "Startup v/s Business" by Mr. Ravindra Manerkar. He explained in detail the procedure to approach the IGNITE - EDC Innovation Hub for various support such as mentoring, incubators and funding sources. Students were exposed to facilities such as private cabin, Individual desk, meeting rooms and Pitch rooms at the Hub.

# 7. Competition – Dhempe's Young Innovators

The "Institutions Innovation Council" (IIC) of the College organized the Festival of Innovation: "Dhempe's Young Innovators"- a one day competition on 14.12.2019 in the new laboratory of the Department of Chemistry, under the leadership of Mrs. Deepa Audi (President IIC) and Ms. Preethi Poduval (Member IIC). The entries included innovative ideas, novel models and exhibits on solutions to problems associated with World-wide crises such as: Climate Change, Poverty and Malnutrition, Migration and Refugee crises, Terrorism and National Security and Waste disposal as the themes for the competition. A total of 32 students divided into 12 groups participated in the competition. The student participants belonged to Department of Physics, Biotechnology, Computer Science, Chemistry, Hindi and Economics. The competition began at 10:30 am and concluded at 1:30 pm. The Principal, Dr Vrinda Borker and the Vice Principal, Mrs. Manjiri Barve encouraged the participants and interacted with them. Faculty members as well as students from various Departments of the College also appreciated the models and exhibits displayed by the participants. The Judges for the competition were Dr. Manoj Ibrampurkar from the Department of Geology and Dr. Swati Pawar from the Department of Physics. The first place was won by Mr. Soham Naik (F.Y B.Sc. Biotechnology – Group 3) and his topic was entitled as Air cube. The second place was won by Mr. Tejas Lotlikar and Mr. Narayan Bandodker (T.Y B.Sc. Computer Science- Group 6) and their topic was entitled as Paper collection robot. The third place was won by Ms. Urmila Kankonkar, Ms Bhavika Shet, Ms Deborah Rodrigues, Ms. Sarah Arondekar and Ms. Amrita Gautam (S.Y B.Sc.-Group 5) and their topic was entitled as *Recycling of Copper Chloride*. The competition – Dhempe's Young Innovators was the first of its kind organized to motivate students in the direction of Design thinking and creative model building and received a positive feedback from the audience as well as the participants.





# INSTITUTION'S INNOVATION COUCIL





# 8. SEMINAR on Product Design & design thinking Model building Innovative Ideas Creative Research

The Institution's Innovation council organized a one-day Seminar on Product Design & design thinking, Model building, Innovative Ideas and Creative Research on 17thDecember 2019.

Eight Faculty members presented their research work in various fields of Science. The following are the titles of the presentations:

no.	
1.	Genetic diversity, virulence and environmental factors affecting the survival of <i>Ralstonia solanacearum</i> infecting <i>eggplant Solanum melongena</i> L. from Goa and Western region of India.
	Sapna S. Gaitonde and Raman Ramesh
2	Diversity and Phylogeny of Bambusicolous fungi from Northeast India
2.	Pratibha J. and A. A. Mao
	Tailoring spinel ferrites for magnetic applications
3.	Chandan C. Naik
4	Hypersaline bacteria as probiotics in <i>Litopenaeus vannamei</i> aquaculture
4.	Samantha Fernandes and Savita Kerkar
5.	Revisiting Indian anamorphic fungi in age of molecular phylogeny
5.	Prabhugaonkar A., Pratibha J. and D. J. Bhat
	Characterization of Novel Marine Viruses
6.	Preethi Poduval and Sanjeev Ghadi
7.	Novel and Green Approach for the Synthesis of Biologically Important Heterocycles
	Dr. Sonia B. Parsekar
0	Design and development of solar panels
8.	Manjunath T. Nayak

Around 50 students attended the seminar and participated in asking questions to the resource persons. An Abstract book of the seminar has also been published and circulated to the resource persons.







# 9. My Story – Entrepreneur

As proposed in the second quarterly activity (October 2019 to December 2019) by IIC of the College, a Lecture session on was organized on 23.12.2019 at the Seminar Hall at 11:00 am. IIC members Ms. Preethi Poduval and Ms. Samantha Fernandes welcomed the guest entrepreneur Mrs. Vandana Sardessai who is an assistant Professor in Dhempe College of Arts and Science and Salgaonkar College of Law, and is famous for her private enterprise "Vandana's delicacies". Ms. Preethi Poduval addressed the students (S.Y and T.Y students of the Department of Biotechnology) and explained the concept of IIC and entrepreneurship. She then introduced the guest speaker to the students.

Mrs. Vandana Sardessai, briefly spoke about usefulness of entrepreneurship and start ups for youngsters. She elaborated on the requirements of a successful enterprise and focused on quality of the product and/or service rendered by the entrepreneur which is a pre-requisite for being successful.

The guest speaker Mrs. Vandana Sardessai shared her own experiences and revealed her success and failure stories during her journey. She emphasized on the proper and effective use of social media to create awareness and showcase the product/service on a larger platform. She also pointed out that passion, creativity, dedication and determination is the key to any start-up. Mrs. Vandana Sardessai shared her fame-stories by displaying the newspaper cuttings which featured her talent as a culinary expert. She encouraged the students by motivating them to pursue their skills and explore their talents. She also answered several questions raised by the students as well as faculty members present.

The student's response was overwhelming and the session ended at 12:00pm with a group photograph.





#### **10.** *Chiasma7.0*

The Department of Biotechnology organized a Science exhibition cum inter-higher secondary and inter-collegiate event for the young students of Goa. Chiasma7.0 was held on 11<sup>th</sup> – 12<sup>th</sup> December 2019, wherein first day programs were held in the college premises while second day programs were held at Estella Hall of Club Tennis de Gasper Dias, as there the lawn was under service, and the parking lot was not available. The organizing committee members were Ms. Arati M. Rane Sardessai, Ms. Gauri Silimkhan and Ms. Samantha Fernandes. The student core team included Mr. Kunal Gauns, Mr. Vinit Nadkarni, Ms. Kaanuka Sai, Ms. Gandha Gharse, Ms. Shivangi Upadhyay, Ms. Rinky Kumari and Mr. Gleeson Menezes from S. Y. Biotechnology class; and, Mr. Kumar Abhishek, Ms. Chrysilla Vaz, Ms. Veda Paidarkar and Mr. Soham Naik from F. Y. Biotechnology. The events were organized for the college students on both the days, while higher secondary schools had events on the second day. The dates for Chiasma7.0 were decided on 25<sup>th</sup> November 2019, the planning and preparations for the events and exhibition kick-started later.

The exhibition was declared open by the Principal of our college, Dr. Vrinda Borker. The students of first year and second year put up various exhibits related to the subjects offered under the course of biotechnology. Working models were also displayed (List of models – separate document). A selfie counter was put up with different fun related props. The students of third year explained the different instruments (List of instruments – separate document) in the laboratory, to the visitors the exhibition. The footfall for the exhibition was found to be around 227 people.

In the higher secondary events sections, this year, Mushtifund Aryans HSS – Cujira, Vasantrao Dempo HSS – Cujira, Dr. K.B Hedgewar HSS – Cujira, Peoples HSS – Panaji, Kendriya Vidhyalay – Mandovi, Purushottam Walwaikar HSS – Mapusa, , Fr. Agnel HSS – Pilar and M.E.S HSS – Vasco.In the college section, four colleges participated, that included, St. Xaviers College – Mapusa, Smt. Parvatibai Chowgule College – Margao, P.E.S College – Ponda and Goa College of Home Science – Campal.

The events for the colleges and HSS were science related and fun filled too. For HSS's on-stage events included Battle of Brains (Debate), Be a Jock...Beat the Clock (HSS – Picking confetti with straw without using hands, ping-pong ball relay) as the on stage events, while the off-stage events included Mind Bogglers (Quiz), Meme-o-Logy (Making Science related memes, template was provided), Zero to Hero (Making a super animal of your choice using waste material) and surprise event (HSS – Solving Sudoku and Dum Shararat of Sci-Fi Movies and). For colleges, on-stage events included Tricks of Trade, Be a Jock...Beat the Clock (Throw ball without moving the arm, blowing the balloon and moving the cup with the air in the balloon), Laugh your genes out (Stand-up Comedy), Mr. & Ms. Chiasma and Bio-Ramp (Fashion Show). The off-stage events included, Rush the Brush (Painting), Mobigraphy (Mobile Photography), Mind Bogglers (Quiz), Meme-o-Logy (Making Science related memes, template was provided) and surprise event (Colleges – Musical Chair, with scientific questions, and bidding of points.).

The teams participated with enthusiasm and glee. The title of Ms. Chiasma was bagged by Ms. Swati Mishra of Smt. ParvatibaiChowgule College – Margao and Mr. Chiasma by Mr. VishwanathVarde of

P.E.S College – Ponda. The evnts has three rounds, namely, Ice-Breaker(Introduction), Talent round and questionnaire round.

The students of biotechnology are supremely talented, who entertained the crowd. Mr. Abhinav Omprakash, from T.Y. Biotechnology recited a poem that he composed, on student-life. On public demand Ms. Sian Rodrigues of T.Y. Biotechnology, rapped, which made the crowd go crazy. Mr. Kumar Abhishek of F.Y. Biotechnology lets the audience laughing with his stand up comedy.

The prizes were given by the hands of our Vice-Principal Mrs. Manjiri Barve, Mr. Edwin Cortz, H.O.D of Dept. of Economics and the Dept. In-Charge, Dr. Gauri Achari. In the HSS section the runners-up were VasantraoDempo HSS – Cujira, while the Mushtifund Aryan HSS were declared as the winners of Chiasma7.0. In the college section the runners-up were Smt. ParvatibaiChowgule College – Margao and St. Xaviers College – Mapusa bagged the first place. In-House prizes were given to students. The award for collecting the most amount of sponsorship was given to Ms. Chrysilla Vaz of

F.Y. Biotechnology. The award for best exhibit was given to a group of F.Y. Biotechnology students, namely, Inica Fernandes, Saanika Vernekar and Anisha Pilankar.

# PICTURES OF THE RUNNERS-UP & WINNERS OF HSS



RUNNERS-UP – VASANTRAO DEMPO HSS – CUJIRA



WINNERS – MUSHTIFUND ARYANS HSS – CUJIRA

### PICTURES OF THE RUNNERS-UP & WINNERS OF COLLEGE



RUNNERS-UP – SMT. PARVATIBAI CHOWGULE COLLEGE – MARGAO



WINNERS – ST. XAVIERS COLLEGE - MAPUSA

### 11. Food Festival

The Department of Philosophy organized the Annual Food Festival on 18th December, 2019. The event began with a short inaugural function which began the lighting of the lamp followed by the Principal's address. She appreciated the participants' readiness of the students in putting up the stalls. The chief guest was Ms. Ashwini Tarkar, the proprietor of Shree Foods Caterers, a woman representing women leadership and entrepreneurship with her thriving catering business for the last 24 years. The annual food festival was convened by Dr. Roshida Rodrigues.

In her address to the students, Ms. Ashwini Tarkar, said that she saw entrepreneurship skills in our students. She believes it is better to be a job creator instead of a job seeker. She motivated students to take knowledge and experience from the event and grow to become entrepreneurs in life.

The event saw enthusiastic students in large numbers selling various sorts of food such as chats, cupcakes, sweet corn, wraps, rolls, biryani, sandwiches, Christmas sweets and savouries and many more items which proved to be crowd pullers of both staff and students across departments of the college.

The students had a great experience and made profits as expected and thanked the organizers for giving them the opportunity to set up and enjoy the food fest!





# 12. Course on Industrial Analytical techniques

The P.E.S's Ravi S Naik college of Arts and Science, Farmagudi, Ponda, Department of Chemistry had organised a one week certificate course on Industrial Analytical techniques from 16th to 26th November 2019. The course comprised of about 36 hours of which 24 hours were allotted to the industrial visit in different industrial estate in Goa, covering both well established chemical as well as pharmaceutical companies and about 12 hours were dedicated to the lectures delivered by well-versed experts in the respected fields. There were 12 speakers from different fields and 12 industries were visited. They were Teva, Blue cross, Vergo, Prachi aqua, Aaqua Laboratory Medispray Laboratory, Polynova Industry, Meha Chemicals, Ashutosh Industry, Aditya Industry, Indoco and Nestle. It was a great experience as we got to interact with different speakers from different background to enlightened us with their inspiring informative lectures. Some of the topics covered were Future aspects and scope in pharmaceutical sector, Chromatographic techniques in pharma industry, Spectral methods, Analysis of active pharmaceutical ingredient, Requirements in pharmaceutical Industry (QC and QA), Waste management in industries, Sophisticated instruments in analytical Laboratories. It was a great exposure to know how the industries actually operated.







# 13. Goa's youngest innovator title

Mr. Soham Naik from F.Y.B.Sc. Biotechnology of DCT's Dhempe college of Arts and Science participated and won the First Place as "Goa's youngest innovator" in the '4<sup>th</sup> Annual festival of Innovation: Goa's young innovators' organized by St. Xavier's College, Mapusa in collaboration with Directorate of Higher education on 8<sup>th</sup> January 2020.

Various colleges from Goa participated in the event. Mr. Soham got to learn the different aspects of innovation and was critically evaluated for his model.



Mr. Soham Naik awarded "Goa's youngest innovator"

# 14. Interactive Session/Mentoring Session on Financial literacy

An interactive session on financial literacy was conducted for the students of F.Y, S.Y and T.Y Economics on 22<sup>nd</sup> January 2020. The talk was conducted by Dr. Celso, Financial consultant from Nave Marg foundation, Goa.

A total of 80 students benefitted from the talk. Dr. Celso shared his knowledge on innovative ideas of financial literacy. He further encouraged the students to invest money wisely and secure their future.







**Interactive session on Financial literacy** 

# 15. State level IPR Workshop

Hard work, intelligence and a good idea turned practical is not the only contributing facts in the success of an entrepreneur. One of the key ingredients to success of an enterpriser is the protection of their idea and processes in a legal manner as well as using marketing tools available to make their products a household name. Names like Colgate and Xerox are famous household names so much so that now any toothpaste or copying machine is referred to as Colgate or Xerox, regardless of the name of the company manufacturing them. This is the power of patenting and positive enforcement of that patent.

To give the students a heads-up in the art and science of intellectual property rights, the Institution's Innovation Council of Dhempe College of Arts and Science in association with Ignite-EDC Innovation Hub organised a state level workshop on IPR, Copyrights and Patenting on 25<sup>th</sup> January 2020 in the seminar hall of the Dhempe College. Key objectives of this workshop was to give attendees a general idea of how products can be protected legally via the means of licencing, trademarks, copyrights and patenting as well as the help the government and other independent organizations like World Trade Centre can confer to make your patented products a trading success.

Ms. Gautami Raikar, Founder and CEO of Law Mate, began the workshop with the general discussion on the difference between a patent, a trademark and copyright and the general process a company must go through to acquire either of these. While trademarking a brand name or filing for a patent, the uniqueness of the name of the brand is of immense importance and cannot be stressed enough upon. In order to avoid any legal trouble, a thorough and deep research in every field related and nonrelated to the target product is important. Ms. Raikar broke down the entire patent filing procedure into several steps to explain the legal workings involved in the process right from research to acquiring a patent. A copyright is best suited when the material or product is of a literary or artistic type such as a novel, a song, photographs etc. Few case study were also provided where even a slight similarity in brand name can lead to expensive legal repercussions.

In the next session by Mr. Cyril D'Souza from the Goa chapter of World Trade Centre (WTC) spoke about how organisations like WTC can help one use their patent or trademark and successfully reach their products to almost every part of the world. WTC Goa works on improving the quality, quantity and consistency of the product as well as help facilitate business practises by providing accurate trade information, digital marketing platforms, conference facilities and other various business services. WTC is breaking grounds in the finance world by helping both the novice and the pro-businessmen to make use of the global as well as domestic trading opportunities.

The session by Mr. Dipak Parab, a nodal officer at the Patent Information Office, highlighted the process of patent filing from the government point of view. Despite being the world's largest democracy, only 1% of the total taxpayer's money is utilised in Research and Development. Due to a lack of a streamlined process of patent granting in India, the process is very time consuming as a result of which India ranks 5<sup>th</sup> in the global patent holders ranking with China leading the race and having the highest amount of global patents. This

goes to show that there is a requirement of restructuring the process of patent filing and make it faster and more direct.

An infrastructural change can be brought about by using innovation and allowing education of the general public in regards to the ways that they can protect their innovation and make the most out of it. With world-renowned companies participating in pillaging other peoples' ideas and products and marketing themselves without conferring due credit, it has high time that every innovator and budding entrepreneur know how to legally gear up to protect their products and that is exactly what this workshop helped in.

# 16. "Kalpak"- Science Exhibition organized by DHE

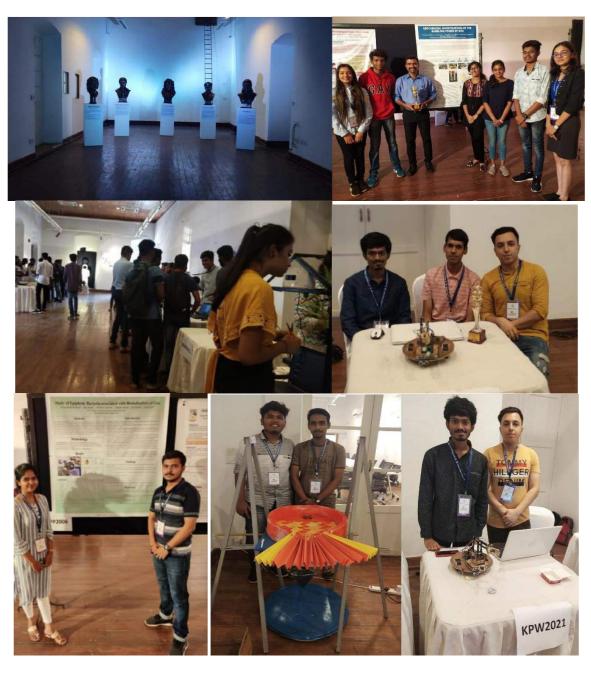
The Directorate of Higher Education organised "Kalpak", a three-day exhibition of innovative projects in Science, Engineering, Arts and Social Sciences, from February 26 to February 28, 2020.

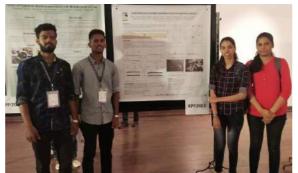
The event was held at Adil Shah palace (Old Secretariat), Panaji and was open for public from 10.00 a.m. to 5.00 p.m. on all three days. Kalpak showcased research projects by college students, in the form of working models and posters presentation, as well as interactive exhibits.DHE requested the college to forward theentries from various faculties, out of which they shortlisted five best entries as follows: "Obstacle detection and object recognition- Paper collection robot" (Working Model) presented by Mr. TejasLotlikar, Narayan Bandodker, Mr. Vibhav Pissurlekar and Mr. Samiullah guided by Ms. Teja Kundaikar- faculty of Department of Computer Science (Won the Second place in the model category); "Geochemical investigation of the bubbling ponds of Goa" (Poster presentation) presented by Mr. Siddharth Prabhu, Ms. Aashwini Shetye, Ms. Varada Bhobe, Mr. Siddhesh Nirmalkar, Ms. Faiza Doddamani and Ms. Prachi Redkar mentored by Dr. Manoj Ibrampurkar- Faculty of the Department of Geology (Won the First place in poster category); "Study of Structure and optical properties of some perovskite based oxides" (Poster Presentation) by Mr. Ciano Fernandes, Mr. Shubham Gaonkar, Ms. Samruddhi Azrekar and Ms. Apoorba Singh guided by Dr. Ramu Murthy Faculty of the Department of Physics.; "Characterisation of bacteria associated with Bioindicators of Goa" (Poster Presentation) presented by Mr. Abhinav Omprakash, Mr. Kenan Vaz, Mr. Anand Raj, Ms. Sneha Pai Naik and Ms. Jasmine Ferreira guided by Ms. Preethi Poduval- Department of Biotechnology and "Parallipse" (Working Model) by Mr. Sahil Naik, Mr. Shreevesh Naik, Mr. Mohammedzuber Jamadar guided by the Faculty of Mathematics. In addition to innovative solutions by Goan innovators, public talks by eminent experts raised the bar of the exhibition.

The primary goal of organizing Kalpak was to provide a unique platform for students to showcase their talents and interact with fellow innovators, eventually building future research collaborations. Kalpak aimed to bring academicians, innovators, and public on a single platform.

On February 26, Prof. V. Saxena, Ex Vice Chancellor of Jiwaji University, Gwallior, delivered a talk entitled "Mathematics in the World of Biological Sciences". On February 27,

Dr. Debasis Patnaik from BITS-Goa spoke on "Education and Socio-Economic Reforms in Goa", while on Friday, February 28, Dr. VithalTilvi from the Directorate of Higher Education, took the audience on space tour with his presentation entitled, "Wonders of the Universe". This exhibition is one of the several initiatives taken by the Directorate of Higher Education, in order to promote research and education in the state of Goa.







### 17. National Science Day 2020

Every year 28 February is celebrated as National Science Day in the country to celebrate the discovery of the "Raman Effect". India"s great scientist C V Raman invented the "Raman Effect" on this day and won the Nobel Prize for the same. This year, the theme for National Science Day was 'Women in Science', which aims to appreciate the contribution of women in the field of science.

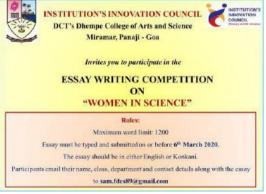
This day was celebrated in the College with great enthusiasm from 28 <sup>th</sup> February 2020 to 6<sup>th</sup> March 2020.

On 28<sup>th</sup> March, all the lady faculty members who are involved in research activities presented their work in front of students and staff. It was an enriching experience to everyone who attended this program. Around 49 members attended this programme. Sixteen lady faculty members including our Principal Dr. Vrinda Borker presented their work. These faculty members presented the research work in various subjects like Chemistry, Physics, Botany, Zoology, Biotechnology, Computer Science, Psychology, and Political Science. It was a very fruitful interaction.









Besides this, The Institution"s innovation council of Dhempe college of Arts and Science also conducted an essay competition on the theme "Women in Science". Ten students from various departments *viz*. Chemistry, Physics, Biotechnology, Zoology and Arts departments participated in the competition.

Mrs. Varsha Virginkar, Mr. Manjunath Nayak and Ms. Preethi Poduval judged the competition. The first place was bagged by Mr. Mayuresh Gaonkar from F.Y.B.A and the second place was bagged by Ms. Ayesha Ramdas Karmali from T.Y.B.Sc. Biotechnology. There was a tie between Ms. Reshma Mukhtiar Mulla from T.Y.B.Sc Chemistry and Ms. Cassidy Barreto from T.Y.B.Sc. Biotechnology for the third place. The essays were much appreciated by all the judges.

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### 18. Faculty development program on entrepreneurship

Assistant Professor Mohit Sukhtankar and Dr Ashish Prabhugaonkar attended a 5 day Faculty Development Program (FDP) on Entrepreneurship organized by Centre for Incubation and Business Acceleration (CIBA) at the Agnel Technical Education Complex, Verna- Goa from 17<sup>th</sup> February to 22<sup>nd</sup> February 2020.

The 5 day FDP was organized by CIBA with the motive to educate the teaching faculty from various institutions on the basic concepts of entrepreneurship so that they can inculcate the same into their students and motivate them to consider the option of entrepreneurship seriously as their career choice. The organizers as well as various experts who conducted the various sessions over the 5 days highlighted to the attendees, the reality of the job market in India. It is no secret that the levels of unemployment in India are a record high and the situation is likely to worsen given the rise of population. Hence, it is the need of the hour that new avenues of employment are explored by the students and the option of self-employment is the most viable. Since, when one individual chooses the option, that individuals ends up creating many more jobs. Keeping that motive in mind, the Government of India, Government of Goa and institutions like CIBA are undertaking various such FDP's to carry the message and the idea of entrepreneurship forward.





The different session that were held over the 5 days, various experts dealt with myriad topics related to entrepreneurship. The experts included renowned experts like Praveen Sabnis, Abhay Bhamaikar, Gautami Raikar, Sanjeev Mulvi, Salim Kazi etc. the different sessions dealt with wide range of topics related to entrepreneurship. The sessions over the first three days dealt with the basics of entrepreneurship like Ideation, Business Plan, Characteristics of a Successful Business, Role of a teacher in entrepreneurship promotion etc. the sessions in the last two days dealt with peripheral topics like stress management, building team spirit, Intellectual Property Rights etc.



The participants were also given a tour of the CIBA facilities where different start ups of the states are incubated and given office spaces to get their business off the ground. CIBA also has a food manufacturing unit where a start up related to food could use it for a limited amount of time for free The facilities were state of the art and very much helpful and have helped many start ups to get funding and today they are medium to large sized businesses.



One of the experts for the session was Mr Salim Kazi, ex-director of EDC Goa and Goa Chamber of Commerce. Mr Kazi is an alumnus of Dhempe College. He was keen on guiding the students of our college to consider entrepreneurship as a career choice. CIBA also pledged to conduct workshops, field visits for our college in the future.

## 19. Business Model Canvas competition

The Business Model Canvas competition was organised by the student members of the Institution's Innovation Council under the leadership of IIC student co-ordinator Mr. Vineet Nadkarni (S.Y B.Sc. Biotechnology) and supervision by Ms. Preethi Poduval (Faculty, IIC Member) on 07.03.2020 in the Audio-Visual room of Dhempe College of Arts and science. The competition aimed to bring out the creativity and innovative business ideas of students and motivate them towards entrepreneurship. Three teams were shortlisted by the student members and the participants were as follows:

<u>Team 1:</u> Mr. Jason Fernandes (S.Y B. A- Economics), Ms. Rinky Kumari (S.Y B.Sc. - Biotechnology), with the business idea of a product called *Coolex*. Team 1 won the first place for the competition.

<u>Team 2:</u> Ms. Kiran Naik and Ms. Shwetakshi Mishra (F.Y B.Sc. -Biotechnology) with the business idea of a *mall in South Africa*.

<u>Team 3:</u> Mr. Narayan Bandodker and Mr. Vibhav Pissurlenkar (T.Y B.Sc.-Computer Science), with the business idea of an aquaculture farm entitled as *Fish Aquaculture* 

The Judges for the Business Model Canvas were Dr. Edwin Cortez (Department of Economics) and Ms. Gauri Silimkhan (Department of Biotechnology).

The judges of the competition and Ms. Teja K (Department of Computer Science)- IIC Member, appreciated the hard work and skills exhibited by the participants with special appreciation of the organisation skills of IIC student members.









### 20. Field visit to an industry

A field visit was conducted for the final year T.Y.B.Sc. students of the Department of Biotechnology of DCT's Dhempe college of Arts and Science, Miramar to United Breweries, Ponda, Goa. The trip was conducted on 7<sup>th</sup> March 2020 for 31 students. Dr. Samantha Fernandes and Dr. Saroj Babar accompanied the students.

United Breweries is an Indian conglomerate company that mainly deals with beverages and is one of India's largest producers of beer. The objective of the visit was to expose the students to a manufacturing unit and understand the science behind Bioprocess technology. The students were also given an orientation about technology transfer and the scope of Biotechnology in industry. The field visit was for four hours.





Field visit to United Breweries, Ponda, Goa.

# 21. Leadership talk with Mr. Abhishek Suryawanshi, Director, Wikipedia swastha

The leadership talk between Dr. Abhay Jere, Chief innovation officer of MHRD innovation cell and Abhishek Suryawanshi, Director Wikipedia Swastha was held on 7<sup>th</sup> April 2020. The talk was very informative and interesting. The viewers got to know about the working process of Wikipedia and how volunteers from around the world are contributing to the information available on this platform. The talk also mentioned that Mr. Abhishek Suryawanshi despite being from a small village in Maharashtra achieved the position of the Director at Wikipedia through sheer determination and hard work. On the whole, the talk was very informative and gave an insight to the perspective of what a Venture Capitalist looks for when it comes to Innovation or Product funding. It also motivated the viewers to think about solving problems beyond their comfort zone.

The faculty members and students of DCT's Dhempe college of Arts & Science attended the talk.



Promotion on social media:

https://twitter.com/PreethiPoduval/status/1247421129574105089?s=08

### 22. Demo Day – Exhibition for young student innovators

Dhempe college of Arts & Science, Miramar, Panaji, Goa organized a State level Science Exhibition on 17<sup>th</sup> January, 2020. Under the guidance of their teachers, the students displayed nearly 100 exhibits on various themes showcasing their scientific skills through static and self-designed working models. Innovative models on display were thermoelectric cooler, fire alarm using 10T, Biofuel model, website using flask python etc.

The Chief Guest of the occasion was Dr. Pradip Sarmokadam, Member Secretary, Goa State Biodiversity Board. While speaking at the formal function, he laid stress on a need for a pragmatic approach in education and exploring subjects beyond classrooms. Mrs. Rupa Khope, Principal, Vasantrao Dempo Higher Secondary School of Arts & Science was the Guest of Honour. She impressed upon the students to inculcate ethical and skill based knowledge. Trustee, Mr.Yatish Dempo graced the occasion. Other dignitaries present were Dr. Vrinda Borker, Principal and Vice Principal Mrs. Manjiri Barve and Co-ordinator of the event, Mrs.Suchana Amonkar.

Large number of students and teachers from various schools visited the exhibits and placed their valuable remarks. The exhibition received a lot of appreciation from everyone.



Inaugurating Science exhibition by Chief Chief guest Dr. Pradip Sarmokadam; along with Guest of Honour Mrs. Rupa Khope, Trustee of DCT Mr. Yatish Dempo, Principal Dr. Vrinda Borker.

# Innovative models displayed by students of Dhempe college of Arts & Science, Miramar, Panaji, Goa













# 23. Leadership Talk

Leadership talk with Dr. Gururaj Desh Deshpande,Indian-American Venture Capitalist & Entrepreneur



The leadership talk between Dr. Gururaj Deshpande and Dr. Abhay Jere was very informative and inspirational. It gave an insight to the perspective of what an Venture Capitalist looks for when it comes to Innovation/Product funding. It also motivated students to thinking about solving more problems besides their niche.



# 24. National Innovation and Startup Policy for Students and Faculty 2019 - A Guiding Framework for HEIs for Implementation

Date: 28<sup>th</sup> April 2020.

Learning Objectives: Strategies and governance for promoting entrepreneurship

- Norms for students and faculty driven startups
- Incubation and pre-incubation support
- Incentives & rewards for students and faculty pursuing innovation and startups
- IP ownership and equity/ revenue sharing mechanisms
- About MIC, IIC and its initiatives

Speaker: Mr. Dipan Sahu, National Coordinator - NISP, IIC & ARIIA, MBA/PGDM in IEV Program, MHRD's Innovation Cell, AICTE

The workshop highlighted about the National innovation and start up policy (NISP) and it's benefits for students and faculty who have innovative ideas which can be scalable and marketable.

The workshop also discussed about the Intellectual Property Right (IPR).

Overall, it was a great webinar and it did motivate many students to enter the entrepreneurial field.





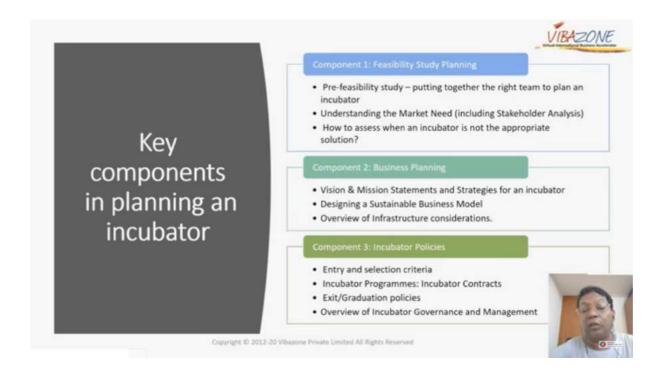
# 25. Role and Importance of Pre-Incubators, Incubators and Accelerators in HEIs

- Harnessing Innovation and Entrepreneurial Potential of Students and Faculties at Early Stage

#### Speaker Mr. Muthu Singaram | Incubation and Pre Incubation

29 April 2020 3:00 to 4:00pm

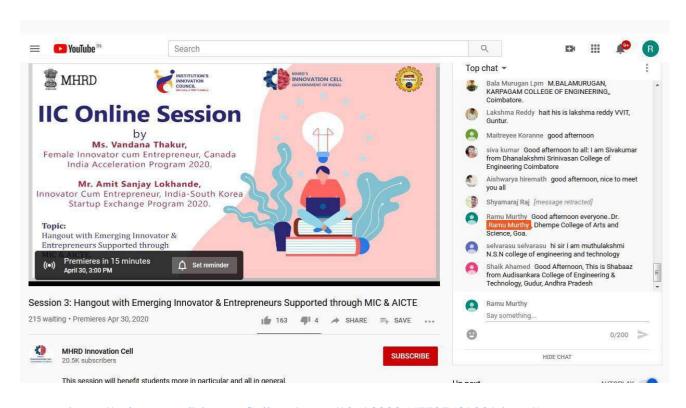
A talk on Role and Importance of Pre-Incubators, Incubators and Accelerators in HEIs - Harnessing Innovation and Entrepreneurial Potential of Students and Faculties at Early Stage was held by MHRD's Innovation Cell – through Online Session on 29 April 2020 3:00 to 4:00pm. Speaker Mr. Muthu Singaram talked about importance of having an incubator in institution and discussed difference between pre-incubation, incubation and acceleration phases. He also touched upon various other aspects to be considered like, the service the incubator should provide, Staff and funding for the incubator and Mentoring and networking for the incubator.



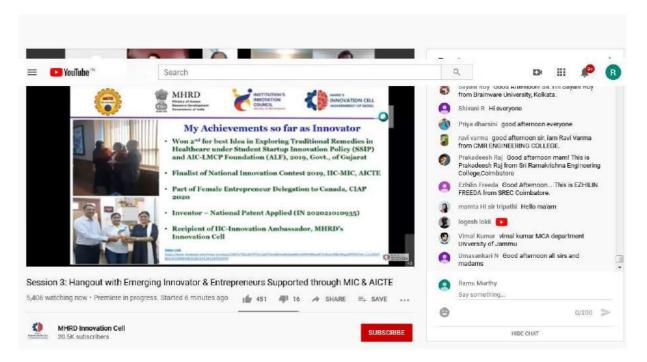
# 26. Session on Hangout with Emerging Innovator & Entrepreneurs Supported through MIC and AICTE organized by MHRD's INNOVATION CELL (Govt of India).

The e-Session was an IIC calendar activity based on various topics and learning objectives based on the theme of "Entrepreneurship Development".

Thakur, a PhD student at the LM College of Pharmacy, Ahmedabad, now a female innovator cum entrepreneur under the Canada India Acceleration Program 2020 and Mr. Amit Sanjay Lokhende, who became a young innovator cum entrepreneur from the Institute of Chemical Technology, Mumbai under the India-South Korea Startup Exchange Program 2020.



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Both the speakers being young entrepreneurs in the making spoke on the Do's and Don'ts in the life of an innovator cum entrepreneur, their journey through the process of selection in various competitions towards building of an entrepreneur, the lessons learned as a part of their training in association with the Canada India acceleration program and India-South Korea Startup program and their achievements in the last one year, felicitation by the MHRD in recognition of their efforts in building innovate products leading to becoming a successful entrepreneur cum innovator and how the I & E ecosystem in Higher educational institutes can help in supporting budding entrepreneurs.

# 27. Role of Network Enablers in driving I & E in HEIs - A case of TiE, India

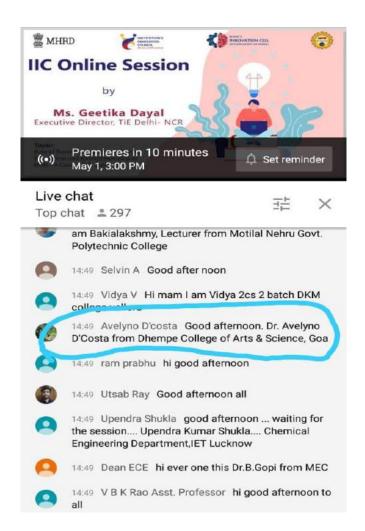
Speaker: Ms. Geetika Dayal, Executive Director TiE, Delhi-NCR

**Date: 1st May 2020** 

Ms. Dayal gave a brief introduction about TiE Delhi which started in 1992 and she also spoke about the origins and history of TiE. The aim of TiE is to mentor young entrepreneurs from India to US, help startups as well as offer assistance to startups in Silicon Valley to other parts of US. She said that by making an entrepreneur successful, the startup could create potential job opportunities. TiE creates entrepreneurs by networking, mentoring, incubation, funding and networking. She also added that institutes can also be part of the system by offering assistance to early stage entrepreneurs or people looking to network and get assistance. TiE holds a number of events by Delhi group. TiE engages closely with a number of partners from the corporate sector, provide value to startup ecosystem, Institutes, travel companies, aviation, investor companies, banks, financial institutions as well as facilitate international collaborations. She further said that TiE conducts exhibitions with stalls for startup companies so as to build collaborations. A large scale exhibition called Global summit/TiEcon helps startups get a chance to pitch to investors. Additionally, during the lockdown, TiE conducts webinars every day, helping other startups. The main website of TiE is Delhi.TiE.org. With regard to academic institutes, TiE works closely with incubators and collaborates with BiRAC. TiE also conducts workshops in different institutes to create awareness about how to be entrepreneurs. Ms. Dayal mentioned that one of the future plans of TiE was to create a summer boot camp for students for learning understanding and get knowledge on startups and entrepreneurship as well to get students into the entrepreneurship mindset. She concluded the session with a message for lockdown: "Have the Spirit of resilience and the spirit of entrepreneurship" since everything will be different post lockdown and the country needs it now more than ever.



https://www.youtube.com/watch?v=6nyk9xWlXfI



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# 28. Product design & Engineering for developing a Product, a Startup's perspective By Dr. Pankaj Parashar

#### https://youtu.be/4lqYN1Xhoqg

The presentation highlighted the concept of Entrepreneurship, the entrepreneurs from different business areas and business sectors.

It also discussed the concept of product design and the various characteristics required for the most desirable product to be suitable in the market. The following points were discussed:

- i. There are various aspects of product design like the Interactive design, Information architecture, Visual design and Usability testing.
- ii. The importance of design are its Utility,Pecularity, Distinguishing feature, Ergonomics,Safety and Unique selling.
- iii. The different examples cited were like a stapler, keyboard, motorcycle and sports car which were designed in various ways that could add to its market value.
- iv. The speaker very well discussed the steps of Engineering a product through design viz
- ✓ Ideation/ Sketches
- ✓ Design Proposal
- ✓ Feasibility Analysis
- ✓ Prototype feedback
- ✓ Finalise product/ design road map.
- ✓ The process of Rapid prototyping was well discussed with the help of 3-D Printers, 3D Pen.

The speaker Dr. Pankaj Parasher presented "My journey of Innovation and product development - An innovator's and Start-up's Perspective'showcasing the product designed in paramedical field like USP of SCINTIGLO, First of a kind Smart Point of Care Diagnostic device for quantitative estimation of proteins in urine.



### What is DESIGN?

- Decide upon the look and functioning of (a building, garment, or other object), by making a detailed drawing of it.
- a plan or drawing produced to show the look and function or workings of a building, garment, or other object before it is made.

h. Pankaj Parashar, di pankaj litid@gmail.com

5.5

#### Live chat

Top chat 2 4.6K





College of engineering chennai



15:16 Achro Chauhann nic



15:16 sharu m klmcew faculty falloed ur session



15:16 vamsi rebal @Anangi Vamsi krishna



15:16 Varun Bharadwaj google form should be a product



15:16 Santhosh G Now Android 10



15:16 BALAMURUGAN R Good afternoon sir, this is Balamurugan from Sri Ramakrishna Engineering College, Coimbatore



15:16 Deepa M. Audi Deepa Audi from Dhempe College Goa Good afternoon everyone



15:16 Alagar Pandi Alagar Pandi Kumar from solamalai college of Engineering madurai tamilnadu



15:16 Subashini Sudhers



K. Subashini from PSNACET

### 29. Report on online sessions by IIC MHRD's innovation cell

#### 5th May, 2020: Entrepreneurship, Business Idea and Business Model Canavas

Speaker Dr. Sunil Shukla | Dr. Amit Dwivedi | Mr. Mayank Patel

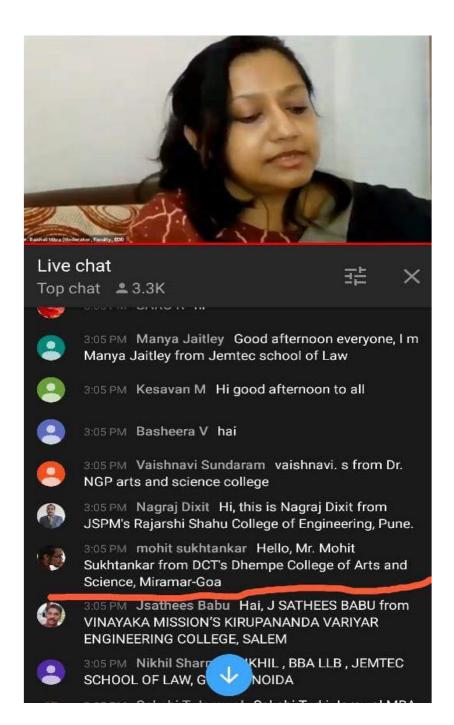
This panel discussion focused on entrepreneurship as the most important concept at this point in time as the entire world is going through an economic crisis due to the COVID-19 pandemic which has caused a lot of unemployment.

According to the panelists, after the different governments manage to deal with the medical aspects of the crisis, the focus will be on how to get the economy back on track and for that, entrepreneurship will be the key to that. Various entrepreneurs have already started coming up with innovative ideas to solve various problems of the society just like in the past.

The panelists later on discussed how and what exactly makes a good/competent entrepreneur. A good entrepreneur isn't necessarily born but most often they can be made. It was highlighted that the government and various institutions have taken various efforts to motivate faculties of colleges and students to take up entrepreneurship much more seriously. Students and faculties of different colleges are coming up with tech savvy innovative entrepreneurial ideas because of these efforts and the future of MSME's look very bright.

The discussion later moved on to the concept of a Business Model Canvas. Business Model Canvas is a strategic management and lean startup template for developing new or documenting existing business models. It is a visual chart with elements describing a firm's or product's value proposition, infrastructure, customers, and finances. It assists firms in aligning their activities by illustrating potential trade-offs.

The panelists discussed about Startups, the reasons for their success and failures. Any startup has to discover the needs of the society, the problems and develop a solution to those problems. Once the solution is developed, they should deliver the solution to the society. The uniqueness of the startup also contributes to their success.



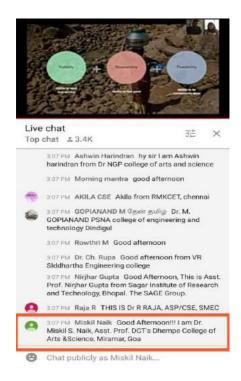
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# 30. Report on IIC Webinar attended on 6<sup>th</sup> May 2020

Session Theme: "How to identify Right Problem and Solution using the Double Diamond Approach in Design" on 6<sup>th</sup> May 2020 from 3:00p.m. -4:00 pm.

Resource persons: Prajakta Kulkarni, Founder, Director, Nodes Pvt. Ltd., Pune and Sanket Inamdar Co-founder, CEO, Nodes Pvt. Ltd, Pune.

The Nodes platform is a teacher centred tool that helps teacher to deliver a new course on a unfamiliar topic, without having subject matter expertise or time to plan and prepare. The session was broadly classified into four headings 1. Introduction to design thinking. 2. How to ensure three elements of innovation 3. Double diamond Process & submission of POC 4.Creating a strategy using Double Diamond in Design thinking. In the talk it was emphasised that to design any kind of solution one requires to Discover, Define, Develop and then Deliver. The three important steps of design thinking of any innovations are Viability which is the ability to help us to solve the solution, Desirability is the ability to get the solution to get adopted quickly and makes us feel good and Feasibility that the innovation is done Error! Hyperlink reference not valid.completely All three components are required for a complete solution. The Double diamond tool is used to understand the solution. of working of design process. It is made up of diverging and converging lines. First one has to identify or discover the problem through primary and secondary research in the form of documented audio, videos etc. At converging state, one tries to gather the information by asking questions related to the problems. In Develop state one can validate the ideas Last step is to Deliver to the users. The case study of Nike in identifying the problem and solving the problem completely and coming with innovative design giving complete satisfaction to the users was also discussed.

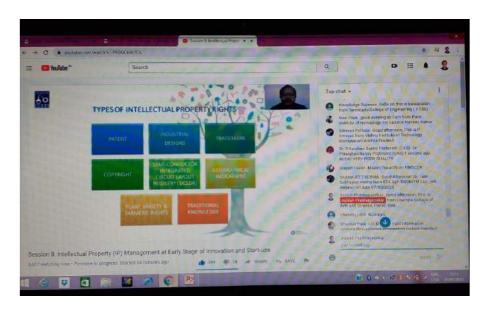


# 31. Online session on Intellectual property (IP) Management at Early stage of innovation and start up.

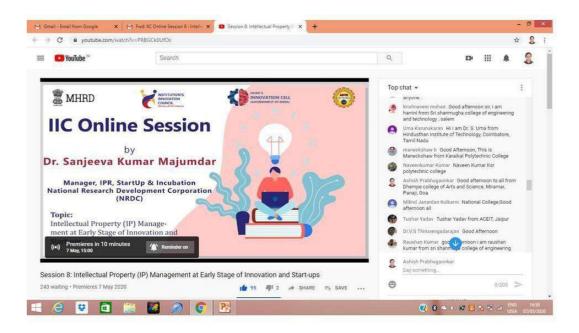
by Dr. Sanjeeva Kumar Mujumdar, Manager (IPR, Startup and incubation), National research development corporation, New Delhi.

**Date: 07<sup>th</sup> May 2020** 

Expert introduced the concept and importance of intellectual property, explained types of intellectual property and different methods/ regulations/options available to protect IP. He illustrated what is meant by patent, industrial designs, trademarks, copyright, semiconductor integrated circuit layout registry, geographical indications, plant variety and farmer's rights and traditional knowledge. Different scenarios in protecting rights under each of these were discussed. We understood why different types of IP protections are required, we also were enriched by practical knowledge of expert who informed us various online location as well as offices for filing IP. Expert explained in detail procedure for filling the patent. What all information can be protected under patent and what cannot be protected? Dos and don'ts while planning to protect IP were also explained. We were introduced to process of filing the patent in India in detail. Types of patent application and dynamics of each type of patent were dealt. Immense experience of expert was visible while he explained process of granting a patent, this was very much useful for us to understand dynamics of drafting the patents. Expert ended talk with giving information about technology IP licencing carried out by NRDC. He introduced us to IPIndia.nic.in and facilitators for protecting the IP.



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# 32. Understanding Angel and Venture Capital Funding -What is there for Early Stage Innovator & Entrepreneurs?

**Date:** 8<sup>th</sup> May 2020

### **Learning Objectives:**

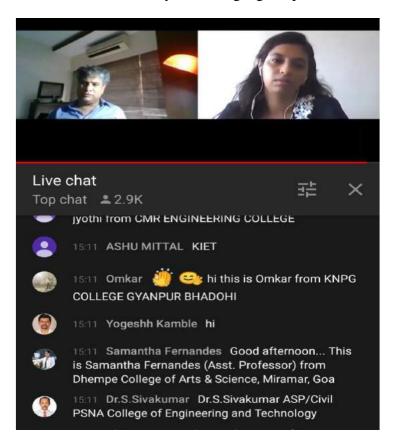
- i. Right stage of innovation or start-up to approach Angel or VC
- ii. What are the checklist before approach angle and VC fund
- iii. Stage of Venture Capital and angel funding

**Theme:** Entrepreneurship Development

Expert: Mr. Sushanto Mitra, CEO, Lead Angels Pvt. Ltd

The talk focused on understanding Angel and Venture Capital Funding with respect to Early Stage Innovator & Entrepreneurs. Mr. Suchanto Mitra gave an idea about start-up funding and the steps to follow for raising capital. He stressed on the importance of raising money in a start-up for the first three years.

He also highlighted on the difference between a business and a start-up. He emphasized that an investor would always evaluate the business profits and the associated risks. Mr. Mitra also guided the listeners about the different ways to approach fund raising and how to convince investors to invest in business, by delivering a good pitch.



# 33. Report of Online session held on 13th May 2020

Title: "Innovating self-screen and identify right opportunities"

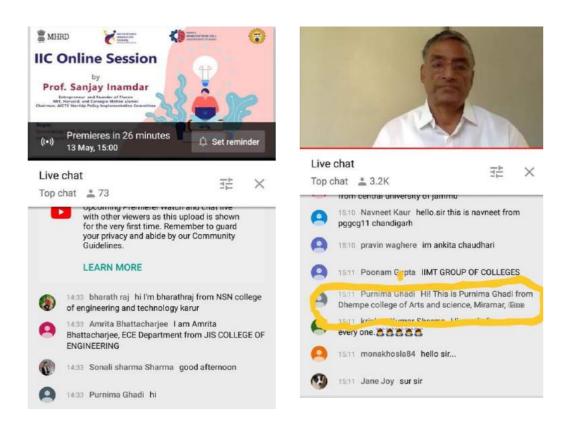
# <u>Resource person:</u> Prof. Sanjay Inamdar, Chairman, AICTE start-up policy implementation committee and entrepreneur.

A talk for students on how to screen a situation and identify its challenges and opportunities.

It had a 3 point agenda:

- 1) Know todays changing scenario
- 2) Skillsets for changing scenario: The skills highlighted were digital skills, higher cognitive skills, social and emotional skills and adaptive and resilient skills.
- 3) Find solutions for changed scenario: Envision the future and change rapidly.

The speaker concluded by reminding all to work for the benefit of the country.



# 34. Understanding Role and Application of Marketing Research at Idea to Start up Stage - Foundation Level

By Dr. Preet Deep Singh, Invest India

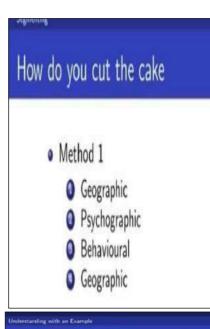
Date: 14<sup>th</sup> May 2020

https://youtu.be/4lqYN1Xhoqg

**Objective**: Importance of Market Research Starting from Idea to Start-up Phase.

- i. The talk focussed on the following aspects:
  - Key to success of any start-up is to know its market value. 60% start-ups fail due to lack of customer demand.
  - 2. Market research should be done on market size, customer and consumer. One cannot target the entire population as customers and market size should be arrived at by understanding who could buy the product.
  - 3. Once the market size is arrived at, customers should be segmented based on their geographical, behavioural or psychographic traits.
  - 4. Targeting is then done to evaluate the attractiveness of a segment from commercial aspects.
  - 5. Positioning of the product to the target segment should then be done. *Eg.* Apple phones positioned for its high design and creativity.
  - 6. Real world case studies were provided in order to understand the above concepts.





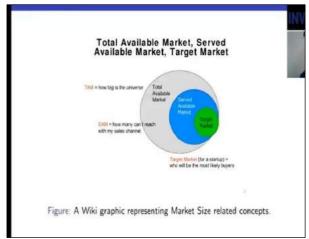
# Think for a Moment

- Who can pay ?
- Who would be interested?
- Who needs your product?
- Who is not with a competitor?
- Who can afford?
- Who can legally access it?
- Who can access it geographically?

Dr Preet Deep Singh Understanding Market Research

Helping a Startup that is putting Vehicle Inspections on Blockchain

Before an insurance is taken out
Done for 2 wheelers and 4 wheelers
Used at the time of claim





### 35. IIC Online session report on Innovation risk Diagnostic-

# Product innovation Rubric (PIR) 15th May 2020

The session titled 'Innovation risk Diagnostic- Product innovation Rubric (PIR)' was delivered by Dr. Lakshmi Meera, Program Director, Forge Incubator.

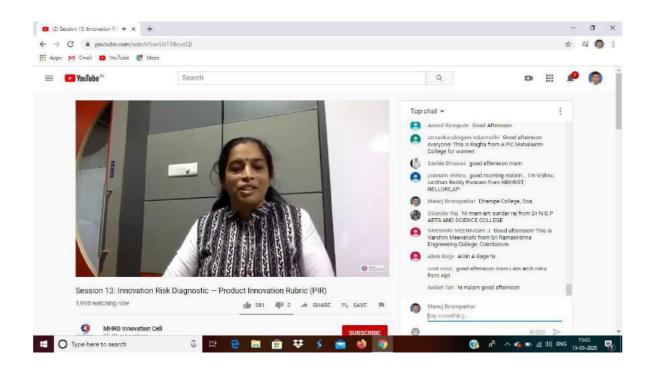
The objective of the session was to understand the risks associated with product innovation and validation of the true market potential of the product.

Dr. Lakshmi first informed about the activities of her organisation Forge Incubator (forgeforward.in) and informed about the semester long 29 credits course for students - Protosem.

Then she explained that an idea should be a deployable solution and an innovator should work with speed and urgency and should be open to failure. She emphasized that an idea is the seed that determines the high growth potential of an enterprise. She suggested that the innovator should first find a problem worth solving and then build a simple and reliable solution using technology. She clarified that the idea should be converted to a start up from Problem to Prototype to Product to Profit. She informed that the Innovations that will achieve the highest target revenue in three years will win.

She insisted that the price of a product will not be determined by the cost of its manufacturing and marketing but it will be determined by how much the target costumer is willing to pay for the solution. That will be the true value of the product. Simple minimum usable prototype should be developed so that the costumer gets to experience the value. The prototype should be usable, useful, deployable and technically feasible. Prototype should be developed to test the value and not the features.

Dr, Lakshmi also explained how to use PIR to evaluate the potential of the product and assess its progress. She explained that the innovator should identify, manage and minimise the risks inherent with the product by constantly taking feedback. Costumer motivation, commitment and acceptance increases the PIR score.





# **36.** Report on online session on Frugal Innovations and Social Entrepreneurship on 25<sup>th</sup> May, 2020

#### Speaker Dr. Raman Gujaral

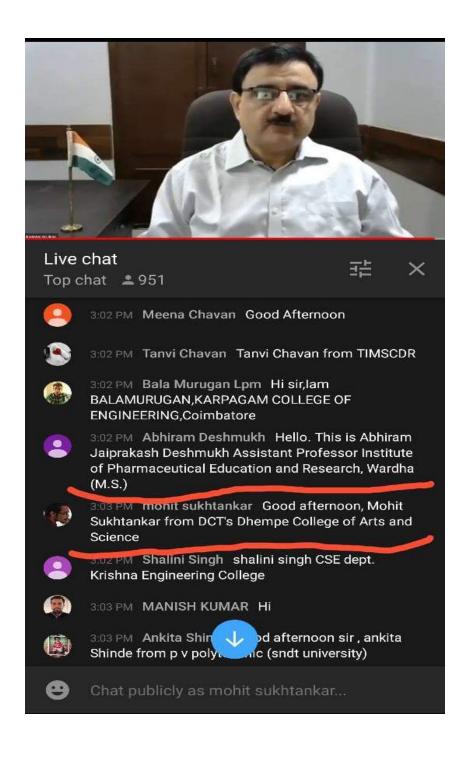
In this session the viewers were educated about Frugal innovation which is a fairly new term used in the sphere of entrepreneurship. It means making clever products from limited resources and seeing poorer populations as a market to serve not as an object of charity. Due to the scarcity, people demand for more value. Companies deliver to that need by focusing on product reorientation and local solutions.

In the Indian context, Frugal innovations are usually referred to as "Jugaad". This practice of Jugaad is a landmine of opportunity according to Dr. Raman. This existing culture of **improvisational innovation or 'jugaad' is** driven by scarce resources & customers' needs. This informal improvisation could to be scaled up to a system based on frugal engineering geared towards Indian needs. It would drive disruptive innovations in sectors such as health, education, housing etc. to meet the needs of many.

Frugal innovation is possible if it is possible to innovate with a low cost design, improve product development efficiency, simplify manufacturing, eliminate non-value adding features and optimize customer interface features. Frugal innovations focus on products and services that are affordable by more people at low levels of income without compromising the quality.

The next part of the session focused on the phenomena of Social Entrepreneurship. It is defined as Process of creating value by bringing together a unique package of resources to exploit an opportunity, in pursuit of high *social* returns. According to the definition given by Tulane University it is defined as "Innovation to create sustainable, scalable solutions to our most pressing social challenges. Working at the intersection of business, nonprofit, and government, social entrepreneurs/social innovators blend models and create mission-driven ventures to effect positive social change."

Dr. Raman focused and emphasized on the need of Social Entrepreneurship in our country as there are many opportunities for entrepreneurs to come up with new ideas and solve the various problems that exists in our society.



# 37. Interaction with Student Innovators and Entrepreneurs Emerged from Smart India Hackathon (SIH)

Date: 22<sup>nd</sup> May 2020

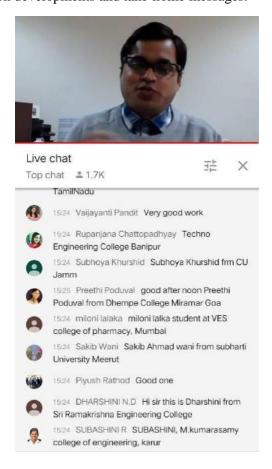
The Speakers of the session were as follows:

- 1. Pulakit jain, Team Vidyut
- 2.Lokesh Goswami, Team SLICK
- 3. Arpit Nandi, Team Quarks & Leptons

The session covered the ideas and solutions offered by young student entrepreneurs who were shortlisted as they were the winners of SIH 2019.

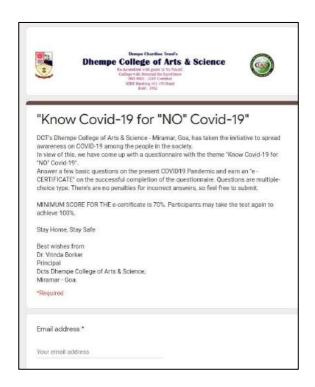
The session was inspirational to students and budding entrepreneurs as topics like innovation strategies, market strategies and start-ups were discussed.

- 1. Mr. Pulakit Jain (Ranchi)- spoke about his inspirational journey through SIH where he innovated with electromotors in auto rickshaws and shared the process and stages of his innovation in SIH.
- 2. Mr. Lokesh Goswami (Udaipur)- presented his innovation on eco-friendly bricks made of plastic and industrial wastes. He laid stress on Recognition, exposure, business, incubation and mentoring for successful entrepreneurship.
- 3. Mr. Arpit Nandi (Mumbai) shared his SIH story where he innovated an air quality monitoring surveillance system. He spoke on identifying problems and finding out solutions to them also mentioned the post hackathon developments and take-home messages.



### 38. Awareness Campaign on "Know Covid19 for NO Covid19"

"Know Covid19 for NO Covid19" Awareness campaign in form of quiz was initiated by Dr. Vrinda Borker Principal, DCT's Dhempe College of Arts & Science – Miramar and was technically assisted by Dr. Manjunath T. Nayak Department of Physics.



 $\frac{https://docs.google.com/forms/d/e/1FAIpQLSfVWeDKB4g3r8aB-i2MpUdSZ-tZ631ahqdNz\_KgyUZQKTyqw/viewform$ 

4347 participants not just from Goa but also outside Goa and India participated in this awareness program (Image below). The participation came from 3315 students, 526 Teachers, 345 In-service, 62 Businessmen and 99 Unemployed persons. 96% OF THEM KNEW THE PRECAUTIONARY MEASURES TO BE FOLLOWED TO PREVENT INFECTION DUE TO COVID19 AND 97% KNEW THE SYMPTOMS.

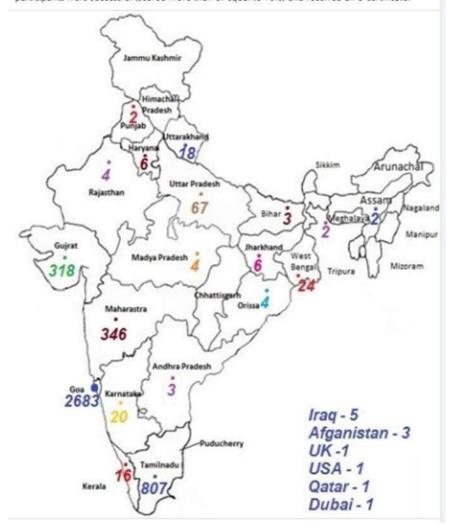
The map of India below shows the nationwide participation in the Covid19 awareness program. The high number of participation is as expected from the state of Goa (2683). The program received good response even from outside the states eg. Tamil Nadu 807 followed by Maharashtra and Gujarat with 346 and 318 responses respectively. There was participation from 15 other states too. Responses were received from outside the country.

As many as 3290 out of 4347 participants were successful (scored more than or equal to 70%) and received an e-certificate.

#DhempeCollege"Know Covid19 for NO Covid19" Awareness campaign in form of quiz was initiated by Dr. Vrinda Borker Principal, DCT's Dhempe College of Arts & Science – Miramar and was technically assisted by Dr. Manjunath T. Nayak Department of Physics.

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96% OF THEM KNEW THE PRECAUTIONARY MEASURES TO BE FOLLOWED TO PREVENT INFECTION DUE TO COVID19 AND 97%KNEW THE SYMPTOMS. Thanks for support. The map of India above shows the nationwide participation in the Covid19 awareness program. The high number of participation is as expected from the state of Goa (2683). The program received good response even from outside the states ex. Tamil Nadu 807 followed by Maharashtra and Gujarat with 346 and 318 responses respectively. There were participation from 15 other states too. Responses were received from outside the country As many as 3290 out of 4347 participants were successful (scored more than or equal to 70%) and received an e-certificate.

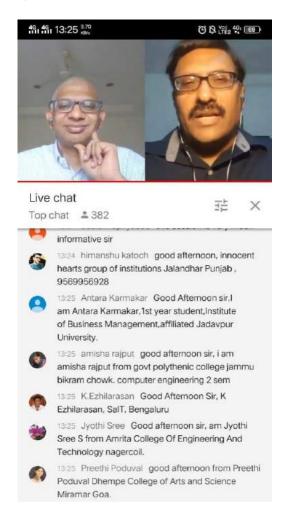


### 39. Leadership Talk Series-MHRD-IIC by Shri R Subrahmanyam

(IAS and Secretary, Department of Social Justice & Empowerment)

Date: 13<sup>th</sup> June2020 Time: 1.00 PM

Shri R Subrahmanyam was interviewed by Dr. Abhay Jere- Chief innovation officer MHRD Innovation cell. Shri Subrahmanyam said that 'Innovation rises out of an adverse situation and that, adversity is a great opportunity. One must overcome the adversity and succeed as an innovator. One must be able to question and analyse. IAS officers who get posted in tribal areas get opportunities to innovate'. He concluded his talk by motivating the youth to be more innovative and to go out of comfort to achieve their targets.



# 40. Preparation and distribution of face masks and cotton cloth bags by NSS student volunteers

Since the start of the lockdown period, the N.S.S student volunteers of DCT's Dhempe college of Arts and Science have been creating awareness regarding safety measures to be undertaken against the pandemic. They have also prepared over 200 face masks and distributed them to residents through local panchayat members and municipality counsellors.

Having downloaded the Aarogya Setu app themselves on their smart devices, they have promoted and assisted members of the public in downloading this app.



Preparation of face masks by NSS volunteers

Dhempe College also donated 700 cotton cloth bags made by NSS student volunteers to the Panaji Municipality, Goa to be used to distribute groceries and food items to the needy people during Lockdown.



(L to R) Dinanath Parab (NSS faculty incharge), Manjiri Barve (Vice Principal), Dr Vrinda Borker (Principal) and Mr Udai Madkaikar (Mayor Panaji muncipal corporation).

Jududi 11 C President

Principal
Dem.po Charities Trust's
Dhempe College of Arts & Science
Panaji-Goa