





How to build a startup

(Included with Guided Tour of startup support facility at Venture Center)

Mini workshop For Students and Faculty

Organized jointly byTechEx.in at Venture Center &Pune Knowledge Cluster.

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GAINS	 How to create early-stage startups Being an entrepreneur: Startup stories How can Venture Center Support the startup's entrepreneurial journeys Guided tour of Venture Center facilities including a demo of two High-end instruments (choice available) 		
ORGANIZED BY	 TechEx.in, a Tech transfer hub at Venture Center VC AnalytiX at Venture Center Pune Knowledge Cluster 		
SUPPORTED BY	 BASF (www.basf.com/in) BIRAC (https://birac.nic.in/index.php) National Biopharma Mission (https://birac.nic.in/nationalbiopharmamission.php) Venture Center, Pune (www.venturecenter.co.in) 		
FOR WHOM	Open to students, researchers and faculty of academic and research institutes who wish to explore entrepreneurship and understand technical details of facilities at Venture Center		
WHEN	Date: Thursday, 1 st June 2023 Time: 11:30 AM to 4:30 PM		
WHERE	Session will be held offline at Venture Center, along with a tour of the campus and its facilities (demo of two Highend instruments included).		
CONTACT	Technical queries: Dr Kavita Parekh 8956457042 <u>kavita.parekh@venturecenter.co.in</u> Registration queries: Lipika Biswas Email: <u>eventsdesk@venturecenter.co.in</u>		
REGISTRATION	Registration fees of Rs. 15,000/- per event Steps for registration: Interested participants need to provide the following details for entry purpose (Name; Email id and Mobile number) Registered participants shall receive a 4 digit code on their registered mobile number and email ID. Use the code to enter the campus. Please do mention that you have come for the workshop incase asked by the security guards. Note:- For more details visit www.techex.in/events		

















Introduction

The event will help in understanding how to create technology startups from innovative ideas. Startup stories and their journey towards being an entrepreneur will be shared. Most importantly, this workshop includes a guided tour of Venture Centre showcasing ways in which Venture Center can support the startup journeys from ideation to all the way to taking the products to commercialization. The main attraction of the tour is a demo of two High-end instruments at the Venture Center Scientific facilities. Institute haschosen the following demos of 2 High-end instruments:

- 1. FT-IR
- 2. Particle Size Analyzer

To summarize, from this workshop participants will be able to understand:

- · How to convert their innovative ideas into a commercial product or a service by being an entrepreneur
- How they can create a startup and be a founder
- How Venture Center can support their startup journey
- Participants will also get an opportunity to have in-person interaction with some successful startups from the Science Tech Domain and learn from their journeys.
- Experience the scientific facilities offered and see live demos for 2 High-End equipments

Program Includes

- Attendance certificates for 25 registered attendees from the institute, post filling up the feedback forms.
- Free membership in mailing list to follow-up on program and intimation of relevant events/ funding opportunities from Venture Center
- Guided Tour of Venture Center and the various service offerings to support innovators and startups from your institutes.
- Access to all presentations via a restricted website.



















Program S	Program Schedule				
Workshop will begin at 11:30 AM					
Time	Duration	Topic	Lead speaker		
1130- 1135	5 mins	Welcome and setting the context for the event	Mugdha Lele		
1135- 1230	55 mins	Nuts and bolts of creating startups: • Essentials of Science and Technology based Entrepreneurship • How to get started • Q&A			
1230- 1240	10 mins	How Venture Center can contribute to your startup journey	Mugdha Lele		
1240- 1330	50 mins	Break			
1330- 1430	60 mins	Live demos for 2 High-End equipments (Pre-selected during registration process)	Edna Joseph / Sujaya Ingale		
1445- 1505	20 mins	Interaction with a panel of successful Startup Founders working on selected key technology sectors like: Healthcare, Agriculture, Energy and Environment, Waste to Value etc	Founders of Startup Companies (2 out of the list of founders provided) Moderated by Kavita Parekh		
1505- 1525	20 mins	Networking over Tea/Coffee			
1525- 1545	20 mins	Tour of Venture Center facilities	Sharvari Naik		
1545- 1615	30 mins	AssignmentsWorkshop Closure, Feedback	Sharvari Naik		



















Founders of Startups (in alphabetical order of their last name) (based on the time and availability of the speaker)			
Anirudh Atre	Jeevtronics	Jeevtronics is a disruptive cardiac innovation based company dedicated to designing and implementing affordable medical devices for underdeveloped and rural areas. The first product of the company is a novel hand-cranked defibrillator that will deliver a Bi-Phasic shock to the heart with less than 15 seconds of cranking.	
Renuka Diwan	BioPrime AGRISOLUTIONS PVT. Ltd.	BioPrime AgriSolutions Pvt Ltd is using its pioneering, innovative research & products in the areas of agriculture, horticulture & floriculture. Specifically, they are working on developing technologically advanced, affordable, better products for soil, crop & water management to the farmers, regardless of their farmland size.	
Sachin Dubey	MODULE INNOVATIONS Module Innovations	Module Innovations aims in developing affordable and innovative diagnostic devices for rapid microbial detection in clinical and non-clinical samples. Module envisions to bring healthcare parity by making systems which can detect diseases at the point of care, without needing a laboratory, trained manpower, electricity and easy to interpret results with colorimetric readouts.	
Ashish Gawade	Jeevtronics	Jeevtronics is a disruptive cardiac innovation based company dedicated to designing and implementing affordable medical devices for underdeveloped and rural areas. The first product of the company is a novel hand-cranked defibrillator that will deliver a Bi-Phasic shock to the heart with less than 15 seconds of cranking.	
Tanuj Gigras	SNayam INNOVATIONS Nayam Innovations	Nayam innovations is a biomaterial based company working towards developing novel Intra-Ocular Lens (IOL) to provide spectacle-free vision to patients undergoing cataract surgery.	
Harshesh Gokani	forhealth ForHealth	ForHealth has developed Rehab Buddy, an intelligent lower limb device that provides smoothened assistance and resistance, increasing a caregiver's productivity. ForHealth is dedicated to optimize and bring forth a platform to assist the journey of recovery andself-maintenance.	
Piyush Joshi	OrthoCrafts Orthocrafts	The start-up focuses on the development of high molecular weight polylactic acid based bioabsorbable implants. The company will eventually cater to the sports medicine market of India.	
Preeti Joshi	FastSense Diagnostics Think Act Innovate FastSense Diagnostics	Fastsense Diagnostics is focused on developing low-cost high efficiency diagnostics devices for complex diseases such as cancer. Their current focus is to develop a hand-held portable electrochemical diagnostic/screening system for liver cancer.	
Divyakshi Kaushik	AMATOMBCH Anatomech	Anatomech's Intelligent Body Suits are technology integrated performance enhancers for an overworked human body. For some, their body could be overworked due to a strenuous physical activity andfor others it could be due to factors such as age, health, lifestyle & genetics.	
Jayant Khandare	Actorius Innovations and Research Pvt. Ltd.	Actorius Innovations and Research Pvt Ltd (AIR) is a research and development company focused on creating novel biomaterials that have critical applications in the life science, drug delivery and medical diagnostics field.	
93	GENRICH Membranes Pvt. Ltd. Genrich Membranes	Genrich Membranes is based on use of Hollow Fiber Membrane technology to offer cost-effective solutions for O2 enriched sterile air for medical applications (oxygen therapy) for patients suffering from respiratory diseases (asthma, COPD, neonatal, etc.)	



















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Ulhas Kharul		
Vaishali Kulkarni	KBCols Sciences	KBCols Sciences is a technology driven startup in the field of Bioprocess Technology working on industrially important pigments and bioactive compounds. They are currently focused on demonstrating proof of concept for an environment friendly, novel color extraction and dyeing process for producing and applying six microbederived colors to three types of fabric (cotton, silk, and wool).
Nilay Lakhkar	SynThera Synthera Biomedical	SynThera Biomedical focuses on R&D, manufacture and commercialization of biomaterials-based medical devices that combine innovation with affordability. Their R&D expertise lies in the development of bioactive phosphate based glasses for use as synthetic bone graft materials in dental, maxillofacial and orthopaedic applications.
Anshuman Lath	Gram Oorja	Gram Oorja fulfils the electricity, cooking and drinking water needs of remote, tribal communities using renewable energy solutions like solar micro-grids, biogas based cooking grids and solar pumps.
Vishal Mahale	BARE EET Analytics Barefeet Analytics Pvt. Ltd.	Barefeet Analytics is dedicated to develop the innovative solutions for cheaper, faster and more efficient screening of residual compounds or contaminants in dairy and agro products. They use 'state-of-the-art' mass spectrometry for analysis of samples.
Veena Moktali	Periwinkle Technologies Periwinkle Technologies Pvt. Ltd.	Periwnkle Technologies is a platform based company for comprehensive healthcare management through mobile and web based app. Their proprietary app called "Bhramar Health" is an unique healthcare platform.
Sanjay Nene	Innovation Biologicals Pvt. Ltd. Innovation Biologicals Pvt. Ltd.	Innovation Biologicals main focus has been on fermentation of the bacterium – Haemophilus influenzae B (HIB) – for production of extracellular polysaccharide, which is a major constituent of vaccines such as meningococcal vaccine. They are also focussing on production of Bioethanol and production of HPV vaccine.
Anuya Nisal	Serigen	Serigen develops biomedical products for healthcare applications for human bone defects like bony voids, long bone defects and traumatic /surgical osseous defects. Serigen leverages material science of natural silk proteins to develop tissue regeneration products.
Nuriel Pezarkar	NobleExchange Green Pect Pettyreen Man And Earth NobleExchange Solutions	Noble Exchange Solutions is a provider of integrated environmental solutions with a mission to minimize environmental impact of human activity through managing waste from collection to disposal, while recovering valuable resources and creating clean and renewable energy. NEX specializes in processing of "Organic Food Waste" with cutting edge Anaerobic Digestion (AD) technology to generate bio gas rich in methane and CO2, which will be compressed and commercialized to replace fossil fuel.
Asmita Prabhune	GREEN PYRAMID GreenPyramid	Green Pyramid Biotech works towards developing ready-to-use biosurfactant-based formulation, that can successfully aid all household consumers to decontaminate and sanitize their fruits and vegetables before consumption. The unique selling point of their formulation is that it is odorless, tasteless, non oily, non-sticky, retains natural taste and does not require a rewash step in plain water, which not only helps save water but also simplifies the cleaning process for large-scale cleaning operations at distribution and export centers.
	CyGenica	Cygenica is an early-stage, biotech company working on a unique drug delivery system. Their invention is a molecular nanomachine – CyCa-dds – that can deliver molecular payloads such as small molecules (anticancer drugs, antibiotics, fluorescent dyes) and biomolecules (genes/nucleotides/proteins) into mammalian,



















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Nusrat J M	Cygenica	bacterial and plant cells.		
Sanghamitra				
Ashwin Shankar	BatteryPool BatteryPool	Batterypool was formed in 2018 with a vision of fostering mass adoption of electric mobility in India. They currently offer 2W electric vehicle (EV) users a charged-battery-as-a-service that is enabled by their (patent pending) battery charging hardware technology and an IoT ecosystem.		
Manjusha Shelke	Rechargion Rechargion	Rechargion is developing Sodium-ion & Lithium-sulfur batteries. Sodium-based chemistry provides a significant opportunity to India as sodium is abundantly available in the form of salt. Rechargion is exploiting the Li-S battery chemistry as an alternative to the Lead-acid or Li-ion based batteries for electric vehicles.		
Shuham Singh	CRASTE	CRASTE (Crop Waste) is using waste materials to develop a solution to the problem of crop burning. They have developed crop-residue based particle boards that can be used in place of plywood. Their first product is particle boards from rice straw held together by a specially created safe glue (not carcinogenic formaldehyde) to		
Shubham Singh	CRASTE	make particle boards.		

















Venture Center Team (in alphabetical order of their last name)

Ms. Sujaya Ingale

Head - Scientific Initiatives, Venture Center



She leads and coordinates scientific initiatives activities which involve planning for scale up and expansion of scientific facilities and services, creating and managing service efficiency and quality matrices to ensure high standards in services. Sujaya has the total professional experience of 17 years. She also heads the quality control department of the MedTech Clean room (ISO 7 and 8) at Venture Center. She is also involved in handling Biotechnology research projects, developing new methods and services. Sujaya has done her Masters in Microbiology and has worked on a research project Microbial biodiversity and its application to identify novel industrially useful enzymes and bioactive metabolites; during her tenure at National Chemical Laboratory, Pune. Sujaya was selected for the Aritra Leadership Accelerator Program by Indian Institute of Management Bangalore, Phicus Solutions and Dr. Reddy's Foundation.

Edna Joseph

Head- Analytical Services



Edna leads the Analytical Services Facility "VC AnalytiX" at Venture Center. She has a Masters in Organic Chemistry (Pune University) and holds a PG Diploma in Patent Law. She also heads the Quality Assurance Unit at the GLP compliant Center for BioPharma Analysis (CBA) at Venture Center. She has demonstrated knowledge and understanding of many analytical instruments (e.g. elemental analysis, thermal analysis, chromatography etc.). She has run and assisted in proof-of-concept projects. Many technical and scientific workshops, especially those with hands-on lab exercises with lab instruments have been conceptualized, planned and organized by her.

Mugdha Lele

Head - Social Innovations, Venture Center



Mugdha is a Ph.D from School of Health Sciences, University of Pune and has teaching and research experience in a State Government medical university. At Venture Center, she is responsible for driving the Social Innovations and related activities and is responsible for providing technical mentoring for incubatees at Venture Center. Mugdha has been a Fellow of the Chevening Rolls Royce Science, Innovation, Policy and Leadership Programme (CRISP) at the Said Business School, University of Oxford, UK in 2016. In 2018 she has also been part of the Aritra Accelerator Program for Leadership in the Social Sector at IIM Bangalore with Phicus Solutions and Dr. Reddy's Foundation. She is interested to drive programs which support development of novel technology solutions for impact in the social sector.

Senior Associate – Outreach and Technology Connects, Venture Center

Sharvari is M.Sc. Biotechnology from Institute of Bioinformatics and Biotechnology, Savitribai Phule Pune University. As part of the TechEx.in team at Venture Center, she is involved in technology scouting and lead generation activities, building industry academia relationships, technology showcases and matchmaking initiatives and various awareness events in the innovation management domain.

Kavita Parekh Associate Mar

Associate Manager - Technology Connects, Venture Center



Kavita is currently Assistant Manager - Technology Connects at Venture Center. She is a doctorate from School of Health Sciences, University of Pune and has teaching and research experience of more than 11 yrs. She has industry experience of working with biomarkers for cancer and her research interests are in molecular diagnostics. At Venture Center, she is responsible for technology marketing and lead generation activities. She also identifies Tech partners in academic and research institutes.

Premnath V, PhD
Director, Venture Center | Head, NCL Innovations

Premnath is Head, NCL Innovations at CSIR-NCL and Founder Director, Venture Center (National award winning inventive enterprises and deep tech incubator). Dr Premnath is a technology developer, innovation and incubation manager, startup mentor and a co-founder of 2 medtech startups. One of his inventions -- a breakthrough material for hip and knee joint replacements — has been implanted in more than a million patients worldwide. Another technology for porous maxillo-facial

















implants has been implanted in thousands of patients in India and abroad. He has provided leadership for teams that have won National awards for technology development, intellectual property management and business incubation. He is chemical engineer and an alumnus of MIT in the US, IIT-Bombay (Distinguished Alumnus, 2022) and has been a Chevening Technology Enterprise Scholar in Cambridge, UK.

















Organized by The Pune Knowledge Cluster (PKC) has been established by the Office of the Principal Scientific Adviser to the Government of India. It aims is to bring together academia, R&D institutions, and the industry of Pune and its surrounding areas, to address the challenging problems of the region through innovative means, using scientific knowledge and engaging highly skilledhuman resources. PKC is administered by the Inter-University Centre for Astronomy and Astrophysics (IUCAA). In the initial phase, PKCwould focus on Health, Sustainability and Environment, Sustainable Mobility, BIG Data and AI and Capacity Building. For more information, visit: https://www.pkc.org.in/ TECHEX.IN is a Technology Transfer Hub operated by Venture Center, Pune, India and supported by the National Biopharma Mission, BIRAC (Govt. of India). TECHEX.IN aims to help technology developers and technology commercialization entities find each other's, forge partnerships and advance the technology closer to the market in a win-win partnership. In this mission, TECHEX.IN will build upon learnings, methods and experiences of NCL Innovations (department of CSIR-NCL championing innovations), ch Transfer Hub at Venture Center IPFACE (IP Facilitation Center) and Venture Center (technology business incubator). The TECHEX.IN is Supported by NBM - BIRAC based in the western part of India. While its focus is on organizations in Maharashtra, Gujarat and Goa states of India, it welcomes technology developers and technology commercialization entities from any part of the world. For more information please visit: techex.in The mission of VC AnalytiX is to set up and operate a world class, efficient and reliable Analytical Services Center as an open access facility at Venture Center. Focus areas included Material science, Chemical synthesis, Biomedical sciences and technology, Chemical & process engineering. VC AnalytiX support start-ups and entrepreneurs with high quality and efficient services, develop and demonstrate NALYTI capabilities to exploit the full capabilities of the facilities to advance science and technology, develop the facilities further by adding complementary facilities, new capabilities and service offerings, undertake projects that leverage the facility and enhance capabilities and visibility, run workshops and training programs to increase awareness and use of facilities, serve as a nucleus to nurture a community of specialists in related fields.

Supported by	
NATIONAL BIOPHARMA MISSION GENERAL ST. India for inclustrensus (27)	National Biopharma Mission (NBM) is a Mission of the Government of India approved by the Cabinet for implementation in May 2017. The NBM's mission is to make India a hub for design and development of novel, affordable and effective biopharmaceutical products and solutions. The NBM has an allocation of US\$ 250 million and is jointly funded by the Government of India and the World Bank in equal measure. The NBM is officially known as "An Industry-Academia Collaborative Mission of Department of Biotechnology (DBT) for Accelerating Early Development for Biopharmaceuticals". Biotechnology Research Assistance Council (BIRAC) is the implementation partner of the Government of India for the Mission. For more information, visit: https://birac.nic.in/nbm/
brac Ignite Innovate Incubate	Biotechnology Industry Research & Assistance Council (BIRAC)is a new industry-academia interface and implements its mandate through a wide range of impact initiatives, be it providing access to risk capital through targeted funding, technology transfer, IP management and handholding schemes that help bring innovation excellence to the biotech firms and make them globally competitive. For more information, visit: www.birac.nic.in
VENTURE C E N T E R 15 years of denotes to the Nation	Entrepreneurship Development Center (Venture Center) – a CSIR initiative – is a Section 25 company hosted by the National Chemical Laboratory, Pune. Venture Center strives to nucleate and nurture technology and knowledge-based enterprises by leveraging the scientific and engineering competencies of the institutions in the Pune region in India. The Venture Center is a technology business incubator supported by the Department of Science & Technology's National Science & Technology Entrepreneurship Development Board (DST-NSTEDB). Venture Center's focuses on technology enterprises offering products and services exploiting scientific expertise in the areas of materials, chemicals and biological sciences & engineering.For more information, visit: http://www.venturecenter.co.in/

For more information please visit: https://www.venturecenter.co.in/analytical/





















BASF has successfully partnered in India's progress for morethan 130 years. As of the end of 2021, BASF had 2,311employees in India with 8 production sites and 39 officesthroughout the country. The Innovation Campus Mumbai andthe Coatings Technical Center in Mangalore are both partsof BASF's globaltechnology platform. In 2021, BASF registered sales ofapproximately €2.3 billion in India. Further information isavailable on www.basf.com/in









