

DON BOSCO INSTITUTE OF TECHNOLOGY



National Innovation and Startup Policy (NISP) Implementation

Foreword by Vice-President

Sri. B. Manjunath

Vice President, Wayanamac Education Trust

Sri. B. Manjunath, Vice President, BE and MBA with the vast exposure of industrial engineering and management, having different portfolios in the industry and top management bodies of Bangalore. A strong visionary of the society to create and sustain a professional community of learning, wherein the youth of the nation acquire the relevant knowledge applicable to the industry. He plays the chief mentor role in Don Bosco Group of Institutions in inspiring faculty and staff members for imparting quality education. Don Bosco reflecting stature of national accreditations and corporate partnerships, are the true believers of quality infrastructure and support system conceived by him.

As an Executive Director of Prashanth Cylinders Pvt Ltd., was instrumental in expanding its marketing and sales with public and private sector oil companies viz. Reliance Industries, Ashand Gas, Asia LPG, Jyothi Gas etc. Being a Mechanical engineer by himself, he took active interest in all the production aspects of the plant. In order to enhance the production capacity of the plant and to achieve the optimal production, he envisioned installation of shot blasting machine, zinc coating machine, cylinder halves cleaning machine, hydraulic pressure testing machine and finally automation of cylinder conveying machine.

He was instrumental in expanding the business beyond borders and able to achieve the deals to export cylinders to Sri Lanka Mundo Gas Company. To achieve this, the pre requisite being the production process should be of international standards. He ensured that the company was accredited with ISO: 9001- 2008 QMS Certification by TUV NORD, Germany.

Foreword by Principal

DR. HEMADRI NAIDU T

B.E., M.E., Ph.D., MIE., MISTE., MIWS., FIV

Dr. Hemadri Naidu Talapaneni is presently working as the Principal, Don Bosco Institute of Technology, Bengaluru. He completed his 10+2 in the year 1991 and graduated with a Degree in Mechanical Engineering in the year 1997. He completed his M. Tech in Machine Design in 2004, pursued Research in Welding Technology for Aerospace Applications and was conferred with Ph.D. in 2017. He has about twenty-two years of Teaching Experience along with a stint of one year in the Industry. He has published more than eleven technical papers in National/International Journals and attended more than fifty Workshops/Seminars/Conferences. He has chaired numerous technical sessions and guided more than a hundred UG and PG projects. He is a Chartered Engineer and has won several awards in the field of Education.

He is a staunch believer in hard work, honesty, transparency and has an uncompromising attitude towards continuous improvement. His favorite quotes are “Work is Worship” and “There is no Substitute for Hard Work”.

Foreword by Dean & Director

I feel it as my privilege to work as a Dean and Director (R&D) in the prestigious institution like DBIT. To uplift the image of the R&D, we are planning to organize various technical events in the campus with external funding from various organizations like ATAL INNOVATION Mission under NITI Aayog, SERB, DST, AICTE, DRDO, ISRO, EDII, NSTEDB, KCTU, MSME and from professional bodies like IEEE, IET, IETE, CSI, ACCS which helps to update the knowledge of the faculty and students in the recent trends of technological growth.

Any educational institution's growth depends on its research component. The quality research undoubtedly brings good ranking to the Institution. This includes various parameters like sponsored projects, the number of research publications in the SCI and Scopus indexed journals by the faculty, number of Ph.Ds available in the college and number of technical events being organized in the college. In the present day trend research is of prime importance apart from infrastructural facilities, teaching & learning processes for getting good accreditation grading and national level ranking for the institution. Unless the institution is strong enough in its research background, it will be difficult to compete with other educational institutions. We are encouraging the faculty to complete their Ph. D degree at the earliest. In the other perspective, the institution is providing financial assistance to faculty for presenting research papers at various conferences and symposia as a part of the research activity.

Research labs & TBI centers are essential in all the departments to promote quality research & to come out with innovative patentable products. For this we are putting Efforts along with experts to establish R&D laboratories & TBI centers with high- end equipment in various specialized fields. These labs will also be useful for executing UG, PG projects and to support consultancy projects in the departments. In addition to the above facts, research forum lectures for faculty, value-added classes for the students and guest lectures by eminent people from academia and industry are regular activities in the college. The faculty members are being motivated to organize events like workshops, international conferences/symposia, FDP on specific themes which will be useful to the faculty to update their domain knowledge. Faculties are also encouraged to publish research papers in the refereed journals and to apply for sponsored projects.

Preamble

India is currently placed 3rd on the global list of the top five startup communities. The country has been able to establish a strong footprint in becoming a globally recognized Startup Nation. India has improved its innovation ranking in GII to reach 66th position from its last year's rank of 81st, India is the top-ranked economy in Central and Southern Asia, showing particular strengths in tertiary sector and R&D, the quality of its universities and scientific publications, its market sophistication and ICT service exports where it ranks first in the world. India also over-performs in innovation relative to its GDP. It ranks second on innovation quality amongst middle-income economies, overtaking Brazil. Several Indian companies that started as humble startup have been able to make a mark in the global investor fraternity. Unlike most of the developed economies, India is a young country with about 63% population currently being in the working age group of 15-59 years. It is the energy and enthusiasm of this youth which is the real driving force behind the entrepreneurial and Startup success. The perfect blend of rising aspirations of youth, audacity to pursue their interest and the enterprising bent of mind is helping the country to emerge as the leaders of new age entrepreneurship. The government is keen to channelize this energy by providing the right ecosystem, proactive policies and ready talent pool to the budding entrepreneurs.

Vision, Mission and Objectives

Vision

To become a resourceful Venture Development Centre by supporting & assisting the new-age innovators and entrepreneurial talents among the student community.

Mission

- Establishing a Venture Development Centre with Pre-Incubation
- Build contacts with Incubation Centers across the Country
- Creating a sustainable ecosystem of Innovation, R&D and Engineering.
- Enhancing links between universities, research institutions, Industry and the business community.
- Promoting businesses that are aligned with a region's unique areas of opportunity.

Objectives

- Establish at least 1 Technology /Business Incubators / Accelerators in each of the different sectors.
- Facilitate Venture Capital funding of a minimum of INR 50 Lakhs
- Encourage/Facilitate/Incubate at least 10 innovative Technology Solutions in sectors like Health Care, Food Security-Agriculture, Clean environment, Education

STRATEGIES

This Policy document recognizes the fact that the seeds of Entrepreneurship and innate ability to innovate must be nurtured in Academic Institutions. It is need of the hour to develop a culture that produces innovators who dare to dream an original idea and pursue till fruition. DBIT would therefore work towards creating such an ecosystem using strategies in alignment with few Ministry of Education-Government initiatives.

Other Supporting Programs for Start-ups

Program	Initiated by	Objective	Core Functions
Atal Innovation Mission	NITI Aayog	To serve as a platform for promotion of world-class Innovation Hubs, Grand Challenges, Start-up businesses and other self-employment activities, particularly in technology driven areas	1. Entrepreneurship promotion 2. Innovation Promotion
Scale-up Support to Established Incubation Centers	NITI Aayog	To scale-up support to enable Established Incubation Centers	Grant-in-aid support of INR 10 crore will be provided in two annual installments of INR 5 crore each
www.10000startups.com	NASSCOM	Startups will be also offered 3 to 4 months of incubation at leading incubators of India, along with co- working space at affordable cost	Close to 500 entrepreneurs who will be eligible for funding ranging from INR 25 lakh to INR 2crore through leading angel investor networks of the country

Pillars of the Policy

1. Infrastructure augmentation
2. Funding
3. Regulatory Acts
4. Student Entrepreneurship

Infrastructure augmentation

Infrastructure will be key to the growth of startups. Innovation and incubation does not limit itself to Information technology sector alone but has its scope in all the sectors including agriculture, energy & environment and Health Care, which are currently not tapped optimally. For this DBIT aims to develop world-class physical infrastructure in the Campus that will provide conducive environment for ideas to originate, scale - up and see business fruition.

PRE-INCUBATION CENTRE

DBIT will establish a pre-incubator in the given discipline and encourage student projects. All such incubators would be networked with external Incubators to facilitate exchange of thoughts, ideas and collaboration across institutions and disciplines. DBIT will encourage students to do intern with start-up incubators recognized by the State Government to do their mini-projects or summer projects or internships.

TRAINING- CENTRES

The Centers would also facilitate mentoring support in business and technology plans, networking of business resources, entrepreneurship cum skill development, identification of appropriate technology, hands on experience on Projects, Projects/ Products selection, project report preparation, credit facilitation, seed capital assistance, marketing assistance, professional assistance to make the enterprise successful. Some specific infrastructures will be developed as access to equipped laboratories, prototyping, testing and demonstrating facilities.

Training & Coaching: The idea here is to train start-up minds with some real-time scenarios wherein, they will develop skills to tackle specific challenges on a daily basis, for example; technology commercialization, presentation/pitch skills, human resources, identifying market opportunities, and customer relation. External experts and/or experienced entrepreneurs will be appointed to act as a mentor and coach during the incubation phase. The mentor is also involved to provide support in obtaining the essential knowledge about the product and the market to be addressed.

Business Support: Guiding is one factor that can boost start-up ecosystem in right direction. Every incubation Programme also gives business support to assist the start-ups in managing their future market and business related issues. A start-up can look up for guidance in business strategy development, sales and marketing, or web design. Another important service is added recently i.e. legal services that includes intellectual property rights of the new product, the establishment of the new company as a legal entity and on regulation compliance.

Mentoring & Training: In order to provide mentoring for priority issues such as fund raising, scaling, recruitment and product interface, Incubators data base shall be provided by DBIT

Assistance for participating in Fair/Exhibition: The Industry association/Incubators leading a delegation of startups to National and International Fair/Exhibition or for organizing such fair/exhibition/seminars would be supported by DBIT annually by providing the facility or by encouraging student participation.

Startup Competition assistance: To encourage entrepreneurship culture among colleges, Eligible Institutes of National Importance, State Universities & Central Universities based in the region DBIT to organize such startup competition fest annually.

FUNDING:

Seed Funding:

A Seed Grant will be provided for validation of idea, prototype development, assistance towards travelling costs and carrying out field/ market research/ skill training/ marketing and initial activities to setup a startup etc. Seed funding to startups would be routed through implementation Committee. Student would apply for the grant to pre-incubation center and in turn would forward the case to the Implementation Committee. The Implementation Committee would further give its recommendation & accordingly sanction the grant on merit of the idea.

REGULATORY ACTS:

Awareness on Regulatory Framework:

Starting up a business involve getting various stages of departmental approval and clearances. Most of the startups are unaware of the complex policies and regulatory framework, which may hinder their regular operations. Therefore, it is imperative for DBIT to provide support /awareness to these propellers of next stage economic growth on these following Acts

- i. The Factories Act, 1948
- i. The Maternity Benefit Act,1961
- ii. The Shops and Commercial Establishments Act,1958
- iii. The Contract Labour (Regulations & Abolition) Act, 1970
- iv. The Payment of Wages Act, 1936
- v. The Minimum Wages Act, 1948
- vi. Payment of Gratuity Act, 1972
- vii. Child Labour (Prohibition & Regulation) Act

STUDENT ENTREPRENEURSHIP:

Inculcating the habit and embedding the idea of innovation and entrepreneurship in the minds of citizens in every aspect of economic activity is essential for promoting the culture of innovation. This needs to be achieved through strong educational support to bring out innovators and technopreneurs among the youth. DBIT would work with universities, educational institutions and the industry to provide pre-trained manpower in emerging technologies and to foster a culture of entrepreneurship in all sectors. DBIT would be actively participating in Smart India Hackathon, conducted by Ministry of Education and organize Hackathons on various subjects.

Sl. No.	Name of the Member	Member type (teaching / Non teaching, External / Internal)	Key role / position assigned in NISP
1)	Sri. B Manjunath	Executive Director	President - NISP
2)	Dr. Nataraj K R	Dean and Director, R & D	Vice President - NISP
3)	Dr. Hemadri Naidu T	Principal	Head of the Institute & Convener
4)	Dr. Venugeetha Y	Professor, Dept of CSE	IIC Coordinator
5)	Dr Somaraya Talloli	Chief Librarian	Social media Coordinator
6)	Dr. Manjunathswamy B E	Assoc Professor, Dept of CSE	ARIIA Coordinator
7)	Dr. Anasuya N J	Professor and HOD, Dept of AI and ML	Internship Coordinator
8)	Mr. Santosh M Neजार	Assistant Professor, Dept of ECE	IPR Coordinator
9)	Mrs. Sheela S	Assistant Professor, Dept of TCE	NIRF Coordinator
10)	Mr. Rafi Ahmad	Assistant Professor, Dept of EEE	Alumni Coordinator
11)	Dr. Arun Magadum	Associate Professor, Dept of MECH	Incubation Centre In-charge
12)	Mr. Suresh Kumar	Director, Taniesh technologies	Industry expert
13)	Mr. Udayakumar	Associate Director, NIDEC, Bangalore	Industry expert
14)	Mr. Shashikiran B S	Lead Engineer, TCS , Bangalore	Industry expert

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Dean & Director
Research and Development
Don Bosco Institute of Technology
Kumbalagodu, Mysore Road
Bangalore - 560 074.

