

# **Innovation and Startup Policy**

**(For Students and Faculty)**

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## **Preamble**

Innovation is defined as the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relation (Oslo Manual). In keeping with its ethos, Toc H Institute of Science and Technology believes in doing things differently - giving importance to development of innovative technologies, application of existing technologies to different areas and combining technologies to improve efficiency and productivity leading to economic and social development. Ideas have to be translated into commercially viable products and services. The Innovation and Startup Policy of the institution lays down guidelines to create and sustain an environment that promotes entrepreneurial culture both within and in the vicinity of the institution leading to the creation of products, services, processes, jobs, wealth and prosperity for all.

## **Objectives**

The Innovation and Startup Policy of Toc H Institute of Science and Technology has the following objectives which shall be specified and quantified in its annual action plan:

1. To create an entrepreneurial environment through the provision of infrastructure, technology, mentoring, financial and IPR related support to innovation and entrepreneurial activities
2. To provide and encourage activities leading to education in the areas of innovation and entrepreneurship.

3. To cultivate an entrepreneurial eco system that provides opportunities for networking with external entities resulting in collaboration and co creation.

4. To set up incubation facilities and support that results in the creation of ventures that are successful in the commercial, technological and social sense.

## **Innovation and Startup Policy**

### **1. Strategies and Governance**

a. In order to facilitate development of an entrepreneurial ecosystem in the organization, specific objectives and associated performance indicators are identified in the Innovation and Startup Policy. The policy is formulated keeping the institution's vision in mind.

b. The responsibility for the implementation of the policy shall be entrusted to the Institution's Innovation Council (IIC) which is constituted so as to remove hierarchical barriers thereby promoting free flow of ideas and assistance.

c. A mechanism to mobilize resources from internal and external sources is formulated.

d. Strategies for making students and faculty aware of the Innovation and Startup Policy through workshops, courses, conclaves and regular refresher programs are developed.

e. Entrepreneurial activities across the institution are integrated through the functioning of IIC. Micro action plans adhering to the action plan of the IIC are to be

developed by the various units such as IEDC, Incubation Cell, departments, student clubs and Centres of Excellence to enable effective implementation of the policy.

f. Strategies for converting ideas to marketable products are to be implemented on a case-by-case basis.

g. Spreading of entrepreneurship culture will not be limited within the boundaries of the institution and the institution will engage with the local community as well as other innovation clusters at regional, national and international level.

## **2. Startups Enabling Institutional Infrastructure**

a. The policy envisages the unification of activities of the IEDC, Incubation Cell, departments, various student clubs and Centres of Excellence under the umbrella of the Institution's Innovation Council (IIC). The IIC frames annual action plans which will be broken down to micro action plans at the IEDC, Incubation Cell, departments, student clubs and Centres of Excellence.

b. Incubation facilities accessible to students, faculty, staff and alumni of all disciplines and departments across the institution and the general public are to be created and upgraded in a continuous manner.

c. The Incubation facility may be registered as a separate entity.

d. A sustainable financial strategy to support the innovation and entrepreneurial activities is developed. Resources for supporting pre-incubation, incubation infrastructure and facilities may be

- i. part of the institutional financial strategy by allocation of funds in the annual budget

- ii. raised from diverse sources government (state and central) such as DST, AICTE, DSIR, CSIR, NSTEDB, NRDC, Startup India, Invest India, MeitY, MSDE, MSME, etc.
- iii. raised from non-government sources such as Corporate Social Responsibility (CSR) funds
- iv. raised as sponsorships and donations particularly from alumni

### **3. Nurturing Innovations and Startups**

a. Processes and mechanisms for easy creation and nurturing of Startups/enterprises by students (UG, PG, Ph.D.), faculty, staff (including temporary or project staff), alumni and potential startup applicants even from outside the institutions are developed.

i. A team is created within the IIC to plan, execute and monitor the activities that build awareness and knowledge in the areas of innovation and entrepreneurship. These activities include:

- Interaction with eminent persons in the field, workshops, conclaves.
- Certificate/Diploma courses on Innovation, Entrepreneurship and Venture Development, having a judicious mix of external and internal resource persons, visits to external incubation facilities and startup ecosystem enablers and case-studies.
- A modular approach using micro courses on marketing, sales, finance, governance, risk and compliance (GRC), team and people management etc leading to macro level certification in identified areas.

- Regular theme-based innovation contests/ideathons, roadshows and an annual innovation and startup festival/hackathon developing a vibrant culture of innovation and entrepreneurship.
  - Bootcamps on areas such as product life cycle, finance management, team building, writing business plans
  - Internships at startups and involvement of alumni in the process
  - Participation in competitions at regional, national and international level
- ii. The activities in point 3.a.i are planned to include maximum number of students, faculty and staff.
- iii. Specific, quantifiable objectives and associated measurable performance indicators are developed in this context in the annual action and micro action plans.
- iv. An expert panel is created which may include both internal and external experts to assess the potential of ideas for mentoring to further stages of development, access to Incubation facilities and funding.
- v. Mentors are identified on a case-by-case basis to handhold the selected ideas with the support of IEDC. Mentorship for both technical and business model are provided.
- vi. Access is offered to incubation facilities within the campus and facilitate access to special facilities outside the campus.
- b. Support shall be provided by the institution for extra classes to improve attendance in case of classes missed due to entrepreneurial activities so that students will be eligible to write their university examinations. Activity points can be allocated appropriately for innovation and startup related activities.

c. As the institution is an affiliated institution, extra academic credits for creating an enterprise is not possible. Instead, students shall be encouraged to submit their work as mini and/or major projects for academic credits specified by the affiliating university excluding innovations that are applying for patent.

d. Accommodation for students, faculty and staff to stay on campus to pursue their entrepreneurial activities for an appropriate fee shall be provided on short/long term basis based on the recommendations of a review committee constituted for this purpose.

e. Faculty and staff may be permitted to avail sabbatical/ unpaid leave/ casual leave for working on startups and come back to the institution. Seniority and other academic benefits during such period may be preserved for such staff or faculty. A review committee shall be set up in the institution for considering such cases.

f. The institution shall develop a part-time/full time PGDM (Innovation, Entrepreneurship and Venture Development) program where one can enhance one's qualifications while incubating and nurturing a startup company.

g. The following may be the mechanisms that shall be provided by the institution to facilitate the startup activities/ technology development:

i. Short-term part-time entrepreneurship training

ii. Mentorship support on regular basis

iii. Facilitation in a variety of areas including

- technology development, ideation, creativity, design thinking
- fund raising, financial management, cash-flow management
- new venture planning, business development,
- product development, social entrepreneurship, product costing

- marketing, brand-development
  - governance, risk and compliance (GRC)
  - human resource management as well as law and regulations impacting a business
- iv. Linking the startups to other seed-fund providers/ angel funds/ venture funds or provide seed-fund from the institution
  - v. License institute IPR to startups

The choice or mix of the mechanisms availed shall be left to the potential entrepreneurs who may be students, faculty, staff, alumni or outsiders.

h. The institution shall support licensing of IPR from institution to startup either in terms of equity in the venture and/ or license fees and/ or royalty.

- In return of the services and facilities, the registered legal entity of the institution may take 2% to 9.5% equity/ stake in the startup/ company, based on brand used, faculty contribution, support provided and use of institute's IPR.

i. Faculty shall be encouraged to engage in entrepreneurial activities through inclusion in list of faculty duties and recognition for their contributions to this area in performance appraisal.

j. The Institution shall always ensure that at no stage any liability shall accrue to it because of any activity of any startup.

h. Break of study for students pursuing entrepreneurial activities may be considered on the basis of recommendations of a review panel as per university regulations.



#### **4. Product Ownership Rights for Technologies Developed at Institute**

- a. IPR is to be jointly owned by inventors and the institute
  - i. when institute facilities/ funds are used substantially or when
  - ii. IPR is developed as a part of curriculum/ academic activity
- b. Inventors and institute may together license the product/ IPR to any commercial organisation. License fees may be either/ or a mix of
  - i. One-time technology transfer fees
  - ii. Royalty as a percentage of sale price
  - iii. Shares in the company licensing the product

#### **5. Organizational Capacity, Human Resources and Incentives**

- a. The institution shall build organizational capacity and human resources by
  - i. recruiting and/ or encouraging staff that have a strong innovation and entrepreneurial/ industrial experience, behaviour and attitude
  - ii. strengthening cross-departmental linkages and coherence in activities across the institution
  - iii. engaging external subject matter experts such as guest lecturers or alumni for strategic advice and bringing in skills which are not available internally
  - iv. encouraging faculty to do courses on innovation, entrepreneurship management and venture development
  - v. developing a mechanism to monitor performance
- b. The institution shall develop academic and non-academic incentives and reward mechanisms for all faculty, staff and stakeholders that actively contribute and support entrepreneurship agenda and activities which may be either/ or a mix of

- i. awards and/ or incentives
- ii. office and lab space for entrepreneurial activities
- iii. reduced teaching loads
- iv. access to seed funds

## **6. Creating Innovation Pipeline and Pathways for Entrepreneurs at Institute Level**

- a. Mechanisms shall be developed to ensure exposure of maximum students, faculty and staff to the value of entrepreneurship and its role in career development or employability. Understanding that innovation (technology, process or business innovation) is a mechanism to solve the problems of the society and consumers with a focus on the market is to be the focus
- b. The mechanisms in Point 3.a of the policy indicate the activities that are to be undertaken by the institution to develop entrepreneurial mindset.
- c. Linkages shall be developed to connect potential startups with the wider entrepreneurial ecosystem.
- d. The Institution's Innovation Council (IIC) shall function as per the guidelines of MoE's Innovation Cell and shall guide and execute the entrepreneurial activities of the institution.
- e. IEDC as part of the IIC shall develop mechanisms to identify, handhold, and provide infrastructure and financial support to innovative ideas with market potential to facilitate the entrepreneurial journey.

f. The entrepreneurial activities shall emphasise the responsibility and accountability of the entrepreneur to the funding agency by promoting a culture that money is not free and is risk capital.

g. An innovation toolkit shall be developed by the IIC to list out the facilities available at the institution and answer queries regarding the innovation and startup policy of the institution.

## **7. Norms for Faculty Startups**

a. Faculty of the institution shall be permitted to be associated only with startups pre-incubated or incubated within the institution.

b. The role of faculty may vary from being an owner/ direct promoter, mentor, consultant or as on-board member of the startup.

c. Faculty startup may consist of faculty members of the institution alone or with students or alumni of the institution or with other entrepreneurs.

d. Faculty startups shall get clearance from a committee constituted by the institution. The institution and faculty concerned shall work out a suitable agreement such that the regular duties of the faculty are not adversely affected through his/ her involvement in the startup activities.

e. Faculty must clearly separate and distinguish on-going research at the institution from the work conducted at the startup/ company.

## **8. Pedagogy and Learning Interventions for Entrepreneurship Development**

a. The pedagogical approaches and interventions that shall be adopted by the institution shall include

- i. cross disciplinary learning using mentors, labs, case studies, role play, games, real life experience reports by startups etc. in place of traditional lecture-based delivery
- ii. competitions, bootcamps, workshops, conclaves, ideathons, hackathons etc. organized by student clubs, departments and centres of excellence
- iii. The institution shall confer Innovation & Entrepreneurship Awards annually to recognize within the institute
  - outstanding ideas
  - successful enterprises
  - and contributors to the promotion and development of the innovation and entrepreneurial ecosystem
- iv. Tolerating and encouraging failures: Failures need to be discussed thoroughly and debated. Potential entrepreneurs must imbibe the philosophy that failure is part of the entrepreneurial journey and that the stigma of failure should not be a deterrent to further endeavours.
- v. Innovation champions shall be nominated from within the students/ faculty/ staff for each department/ stream of study
- vi. Majority of student projects and innovations shall be based on real life challenges

b. Entrepreneurship education shall be imparted to students at curricular/ co-curricular/ extracurricular level:

- i. Induction program about the importance of Innovation and Entrepreneurship shall be conducted for newly inducted students. This program shall also make them aware of the innovation and startup policy of the institution and the support systems available.
- ii. Elective/ short term or long-term courses on innovation, entrepreneurship and venture development having validated learning outcomes shall be designed and conducted. These courses shall integrate the expertise of external resource persons with that of internal stakeholders.
- iii. Industry linkages shall be created and leveraged to identify trends in technology, research, innovation, and market intelligence
- iv. Student innovators, startups, experts shall be engaged in the dialogue process while developing the strategy so that it becomes need based. Strategies to evaluate whether a student is capable and willing to take risks shall also be devised.
- v. Customized teaching and training materials shall be developed for startups.
- vi. Learning interventions developed by the institutes for inculcating entrepreneurial culture shall be constantly reviewed and updated.

## **9. Collaboration, Co-creation, Business Relationships and Knowledge Exchange**

a. Stakeholder engagement shall be given prime importance in the entrepreneurial agenda of the institute. In this regard, the Institution shall identify potential partners, resource organizations, micro, small and medium-sized enterprises (MSMEs), social enterprises, schools, alumni, professional bodies and entrepreneurs to support entrepreneurship and co-design the programs.

b. The institution shall organize networking events to facilitate the free flow of ideas resulting in the building of successful ventures.

c. Mechanisms for creating, managing and coordinating these relationships for knowledge exchange through collaboration and partnership shall include internships, teaching and research exchange programmes, clubs, social gatherings to absorb information and experience from the external ecosystem

d. The institution shall ensure maximum exploitation of entrepreneurial opportunities with industrial and commercial collaborators.

e. The institution shall develop an innovation knowledge platform using inhouse Information & Communication Technology (ICT) capabilities for knowledge management.

## **10. Entrepreneurial Impact Assessment**

a. The institution shall monitor and assess the impact of all its entrepreneurial initiatives including entrepreneurship education, pre-incubation and incubation regularly using well defined evaluation parameters. The parameters shall be quantified in the action and micro action plans. These shall include

i. Parameters for monitoring and evaluation of knowledge exchange initiatives, engagement of all departments and faculty in the entrepreneurial teaching and learning. Key Performance Indicators (KPIs) for the programs shall not only include the number of each type of program conducted but also assess the impact of these programs.

ii. Parameters such as the number of ideas generated, number of ideas escalated to stage of mentorship, the number of teams that could avail financial

support from external and internal sources, the number of startups in preliminary stage, the number of registered startups, number of companies incubated in college, progress, mentoring, fund utilization etc

iii. Parameters related to IPR protection, industry linkages, exposure to entrepreneurial ecosystem.

b. Impact assessment for measuring the success of enterprises shall be in terms of sustainable social, financial and technological impact in the market keeping in mind that commercial success is the prime measure in the long run.

c. The institution shall actively utilize the information on impact of the activities to review and modify its entrepreneurial strategy on a regular basis.

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