

## KCT Innovation and Start-up Policy

Version 1.0

# KCT Innovation and Start-up Policy

**Version 1.0 October 12, 2022** 

#### **Kumaraguru College of Technology**

Chinnavedampatti Post, Saravanampatti Coimbatore – 641 049

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VERSION HISTORY				
VERSION	REVISION DATE	DESCRIPTION OF CHANGE	AUTHOR(S)	
	12.10.2022	Version 1.0 for release	1.	Dr.D.Saravanan, Principal
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#### **Glossary**

Accelerators: Start-up Accelerators design programs in batches and transform promising business ideas into reality under the guidance of mentors and several other available resources. Accelerators aim at achieving Product, Business & Growth acceleration of startups that are commercializing innovative technologies, through programmatic interventions implemented over a period for cohort startups. The accelerator program brings a high-touch engagement model, offering value added services and resources to startups integrating strategic advisory & interventions, coaching, expert mentoring, & investor connections through bootcamps, workshops and 1-on-1 consulting hours to achieve desired progress on scaling product, business & company.

**Angel Fund-**An angel investor is a wealthy individual who invests his or her personal capital and shares experiences, contacts, and mentors (as possible and required by the start-up in exchange for equity in that start-up). Angels are usually accredited investors. Since their funds are involved, they are equally desirous in making the start-up successful.

**Cash flow management** is the process of tracking how much money is coming into and going out of your business.

**Co-Creation** is the act of creating together. When applied in business, it can be used as is an economic strategy to develop new business models, products and services with customers, clients, trading partner or other parts of the same enterprise or venture.

**Compulsory Equity:** An equity share, commonly referred to as ordinary share also, represents the form of fractional or part ownership in which a shareholder, as a fractional owner, undertakes the maximum entrepreneurial risk associated with a business venture. The holders of such shares are members of the company and have voting rights.

**Corporate Social Responsibility (C.S.R.)** is a self-regulating business model that helps a company be socially accountable – to itself, its stakeholders, and the public.

**Cross-disciplinary** practices refer to teaching, learning, and scholarship activities that cut across disciplinary boundaries.

**Entrepreneurial culture** A culture/ society that enhance the exhibition of the attributes, values, beliefs, and behaviours that are related to entrepreneurs.

**Entrepreneurial Individuals An** Individual who has an entrepreneurial mindset and wants to make his/her idea successful.

**Entrepreneurship education** seeks to provide students with the knowledge, skills, and motivation to encourage entrepreneurial success in a variety of settings.

**Entity is** a private Limited company (as defined in the Companies act 2013) or Limited Liability Partnership (Under the limited Liability Partnership Act, 2008) or a Partnership firm under Tamilnadu Partnership Act, 1959 or ?

**Experiential Learning** is the process of learning through experience and is more specifically defined as learning through reflection on doing.

**Financial management** is the application of general principles of management to the financial possessions of an enterprise.

**Hackathon** is an intensive event in which computer programmers and others involved in software development, including graphic designers, interface designers, project managers, and others, often including domain experts, collaborate intensively on software projects.

Hackathon is a initiative launched to provide an opportunity to young technical minds to showcase their creativity in the form of software/hardware products that can solve some of the daunting problems of the country. It provides an opportunity to scale up the much-needed innovation efforts, exploiting the low-cost innovation capacity in higher technical education, whilst also achieving the goals of Skill India. By serving as the Open Innovation platform, it shall connect the budding young innovators to catalyze Innovation, which is essential to further boost the growth of the innovation and startup economy in India. The student innovators shall gain bountiful opportunities to learn in a multi-disciplinary context by applying the concepts from diverse disciplines, while co-creating with the industry partners during the Hackathon.

**Host Institution** refer to well-known technology, management and R&D institutions working for developing start-ups and contributing towards developing a favourable entrepreneurial ecosystem.

**Incubation** is a unique and highly flexible combination of business development processes, infrastructure, and people, designed to nurture and grow new and small businesses by supporting them through the early stages of development.

Incubation is a systematic process of accelerating technology/product innovations into growth-ready companies attractive for venture investments.

**Innovative Project is** any idea capable of introducing new or descriptive technology in the development of existing and new products, processes, or services, capable of addressing the emerging or present challenges before the society at large in an effective manner

Institution: Kumaraguru College of Technology

**Institution's Innovation Council (IIC)** is established to promote innovation in the Institution through multitudinous modes leading to an innovation promotion ecosystem in the campuses.

**Intellectual Property Rights Licensing:** Licensing is a partnership between an intellectual property rights owner (licensor) and another who is authorized to use such rights (licensee) in exchange for an agreed payment (fee or royalty).

I & E: Innovation and Entrepreneurship

**Knowledge Exchange** is a process which brings together academic staff, users of research and wider groups and communities to exchange ideas, evidence, and expertise.

Pedagogy and Experiential Learning It refers to specific methods and teaching practices (as an academic subject or theoretical concept) which would be applied for students working on start-ups. The experiential learning method will be used for teaching 'start-up related concepts and contents' to introduce a positive influence on the thought processes of students. Courses like 'business idea generation' and 'soft skills for start-ups' would demand experiential learning rather than traditional classroom lecturing. Business cases and teaching cases will be used to discuss practical business situations that can help students to arrive at a decision while facing business dilemma(s). Field based interactions with prospective customers; support institutions will also form a part of the pedagogy which will orient the students as they acquire field knowledge.

**Pre-incubation** It typically represents the process which works with entrepreneurs who are in the very early stages of setting up their company. Usually, entrepreneurs

come into such programs with just and idea of early prototype of their product or service. Such companies can the graduate into full-fledged incubation programs.

**Prototype** is an early sample, model, or release of a product built to evaluate a concept or process.

**Science parks** also known as a research park, technology park or innovation Centre, is a purpose-built cluster of office spaces, labs, workrooms, and meeting areas designed to support research and development in science and technology.

**Seed fund** is a form of securities offering in which an investor invests capital in a startup company in exchange for an equity stake in the company.

**Special Purpose Vehicle,** also called a special purpose entity, is a subsidiary created by a parent company to isolate financial risk. Its legal status as a separate company makes its obligations secure even if the parent company goes bankrupt.

**Start-up is an** entity that develops a business model based on either product innovation or service innovation and makes it scalable, replicable, and self-reliant and as defined in Gazette Notification No. G.S.R. 127(E) dated February 19, 2019.

**Technology Business Incubator** (T.B.I.) is an entity, which helps technology-based startup businesses with all the necessary resources/support that the start-up needs to evolve and grow into a mature business.

**Technology Commercialization** is the process of transitioning technologies from the research lab to the marketplace.

**Technology management** is the integrated planning, design, optimization, operation and control of technological products, processes, and services.

**Venture Capital** is the most well-known form of start-up funding. Venture Capitalists (VCs) typically reserve additional capital for follow-up investment rounds. Another huge value that V.C.s provide is access to their networks for employees or clients for products or services of the start-up.

#### **Vision**

Foster an entrepreneurship ecosystem in Kumaraguru College of Technology to promote development of innovative solutions that impact the society and economy.

#### **Mission**

- 1. Create an ecosystem to support and nurture innovations that seed entrepreneurship & enterprise creation
- 2. Establish an innovation management system that supports generating ideas and transforming them into commercial products/ projects/ businesses using tools, processes, feedback loops and collaborations.

#### **Objectives:**

- 1. Establish a guiding framework to actively engage students, alumni, and educators, in innovation-related activities by promoting various initiatives and providing the necessary support.
- 2. Design a system to measure, monitor and continuously improve the quantity and quality of the innovation pipeline

The policy consists of three verticals:

#### 1. Strategies and Governance (NISP-CL1)

- 1.1 Nurturing Innovations and Startup (NISP-CL3)
- 1.2 The governing team, roles, and responsibilities
- Organisational Capacity, Human Resources, and Incentives (NISP-CL5)
- 1.4 Financial Budget and Fund Mobilization
- 1.5 Product Ownership Rights for Technologies Developed at Institute (NISP-CL4)
- 1.6 Entrepreneurial Impact Assessment (NISP-CL10)

#### 2. Innovation Infrastructure and facilities

- 2.1 Start-ups Enabling Institutional Infrastructure (NISP-CL2)
  - 2.1.1 Innovation Labs
  - 2.1.2 Preincubation Centre
  - 2.1.3 Incubation Centre

#### 3. Educators and students

- 3.1 Creating Innovation Pipeline and Pathways for Entrepreneurs at Institute Level (NISP-CL6)
- 3.2 Norms for educators and student Start-ups (NISP-CL7)
- 3.3 Engagement of students and educators with start-ups
- 3.4 Pedagogy and Learning Interventions for Entrepreneurship Development (NISP-CL8)
- 3.5 Collaboration, Co-creation, Business Relationships and Knowledge Exchange (NISP-CL9)
- 3.6 Continuous improvement system- Measure and monitor

1. Strategies and Governance (NISP-	

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#### 1.1 Nurturing Innovations and Startups (NISP-CL3)

- KCT shall establish processes and mechanisms for the easy creation and nurturing of Start-ups/enterprises by students (UG, PG, PhD), educators, alumni, and potential startup applicants even from outside the institutions.
- II. The students/staff of KCT may reach out to the nearest incubation facilities in other HEIs/Incubators/Research centres to gain access to their resources if required.
- III. Suppose the external Startup requires support in areas where the host institute does not have the necessary resources/infrastructure. KCT shall offer access to innovation facilities.
- IV. The institution shall allow students/educators to set up a startup (including social startups) and work part-time for the startups while studying/working. They shall be encouraged to work as interns / parttime in startups (incubated in any recognised HEIs/Incubators) while studying/working.
- V. Student inventors may also be allowed to opt for Start-up in place of their mini project/ major project, seminars, or summer training. The area in which a student wants to initiate a startup may be interdisciplinary or multidisciplinary.
- VI. Student Entrepreneurs may earn credits for working on innovative prototypes/business Models managed by the incubator through its programs for preincubation & incubation.
- VII. Student entrepreneurs shall be permitted to sit for their (semester) examinations based on their attendance gained with due permission from the Institute from the respective innovation lab, preincubation, or incubation Centre.
- VIII. The institution shall allow their students to take a semester/year break (or even more depending upon the review committee's decision constituted by the Institute) to work on their startups and re-join academics to complete the course.

- IX. Students under incubation pursuing entrepreneurial ventures while studying shall be allowed to use their address in the Institute to register their company with due permission from the institution.
- X. The Institute shall support by providing accommodation to the entrepreneurs within the Campus for some specified period on a need basis.
- XI. Provision shall be made to enroll on the MS/ MBA/ PGDM (Innovation, entrepreneurship, and venture development) full time /part-time while incubating and nurturing a startup company
- XII. Institute will facilitate the startup activities/ technology development by allowing students/ educators to use institute infrastructure and facilities, as per the choice of the potential entrepreneur through short-term/ sixmonth/ one-year part-time/full-time innovation and entrepreneurship programs.
- XIII. The institution shall allow educators to take off for a semester/year (or even more depending upon the review committee's decision constituted by the Institute) as sabbatical/ unpaid leave/ casual leave/ earned leave for working on startups come back.
- XIV. The institution shall consider allowing the use of its resource to educators/students wishing to establish a Startup as a full-time effort. The educators involved in establishing the startup activity, seniority and other academic benefits during such period are preserved for such Staff or Faculty.
- XV. The institution shall facilitate mentorship in various areas, including technology development, originality(ideation), creativity, design thinking, fundraising, financial management, cash-flow management, new venture planning, business development, product development, social entrepreneurship, product costing, marketing, brand development, human resource management as well as law and regulations impacting a business.

- XVI. The Institute may link the startups to other seed-fund providers/ angel funds/ venture funds or set up a seed fund once the incubation activities mature.
- XVII. The institution shall provide various support to students/staff based on a mutual agreement as recommended below in return for the services/facilities provided,
  - a. Institute may take 2% to 9.5% equity/ stake in the startup/ company, based on brand used, faculty contribution, the support provided and use of the Institute's IPR (a limit of 9.5% is suggested so that the Institute has no legal liability arising out of Startup. The Institute shall take a much lower equity share unless its full-time faculty/ staff have substantial claims(in the form of shares)). Other factors for consideration shall be Space, infrastructure, mentorship support, seed funds, support for accounts, legal, patents etc.
  - b. For Staff and Faculty, Institute can take no more than 20% of shares that staff/faculty take while drawing a full salary from the institution; however, this share will be within the 9.5% cap of company shares listed above.
  - c. There is no restriction on shares that faculty/staff can take if they do not spend more than 20% of office time on the Startup in an advisory or consultative role and do not compromise with their existing academic and administrative work/duties. If the faculty/ staff holds the executive or managerial position for more than three months in a startup, they will have to go on sabbatical/ leave without pay/earned leave.
  - d. In the case of the compulsory equity model, startups from the institution may be given a cooling period of 3 months to use incubation services on a rental basis to decide based on satisfaction of services offered by the institute/incubator. In that case, during the cooling period, Institute cannot force

- startups from the Institute to issue equity on the first day of granting incubation support.
- e. Institute could extend this startup facility to alumni of the Institute and outsiders. The Start-up may choose to avail only the support, not seed funding, by the Institute on a rental basis. The Institute shall also provide services based on the mixture of equity, fee-based and/ or zero payment models.
- XVIII. Participation in startup-related activities shall be considered a legitimate activity of the faculty in addition to teaching, R&D projects, industrial consultancy, and management duties. It must be considered while evaluating the annual performance of the faculty. Every Faculty may be encouraged to mentor at least one Startup.
  - XIX. The institution shall allow licensing of IPR from Institute to Startup, students and educators intending to initiate a startup based on the technology developed or co-developed by them or the technology owned by the Institute. They should be allowed to take a license on the said technology in the easy term, either in terms of equity in the venture through the incubation Centre or license fees and royalty to prevent the early-stage financial burden. The IPR policy of the institution shall govern the same.
  - XX. Product development & commercialization, participating and nurturing startups shall be part of faculty roles & responsibilities. Shall also evaluate each Faculty accordingly for their performance and promotion.
  - XXI. Institutions shall do the necessary update/change/revise performance evaluation policies for educators on innovation & entrepreneurship outcomes.
- XXII. Institute shall ensure through formal agreements with startups/stakeholders so that at no stage any liability accrues to it because of any activity of any startup.
- XXIII. Institute shall continuously monitor the implementation of the students and educator's startup policy.

#### 1.2 The governing team, roles, and responsibilities:

- Advisory Committee
- Executive Committee
  - o Institution's Innovation Council (IIC)
  - Innovation Task Force
    - I&E Coordinators (Department & Units)
    - Innovation mentors
- Dispute Resolution Committee

#### 1.2.1KCT-ISP Advisory committee

#### **Committee composition:**

- 1. Management,
- 2. Principal
- 3. Alumni Entrepreneur (Technology based),
- 4. Regional Entrepreneur,
- 5. Govt. official (central/state-innovation related),
- 6. Academic leader,
- 7. Incubator Representative,
- Angel Investor,
- 9. Startup Founder,
- 10. Corporate Representative
- 11. Student Startup founder Incubated

#### **Roles & Responsibilities**

- Lead the Institute to become the driving force in developing the region's innovation and entrepreneurship ecosystem.
- Define specific goals, objectives, and associated performance indicators for assessment.
- Build organizational capacity, human resources, and incentives for developing Innovation and Entrepreneurship.
- Strategize Collaboration, Co-creation, business partnerships and knowledge exchange in Innovation and Entrepreneurship.

- Facilitate partnerships with international innovation clusters and other relevant organisations.
- Guide and steer the implementation team with innovative ideas, approval, and amendment of new policy clauses according to objectives.

#### 1.2.2 Executive Committee

#### **Committee composition:**

- 1. Principal
- 2. Management representative
- Dean/Director I&E
- 4. Representatives from IIC
- 5. Alumni entrepreneur (technology based),
- 6. Incubator Representative
- 7. Corporate Representative

#### Responsibilities

- Design, Develop and Implement I & E strategy and policy for the entire Institute to integrate the innovation & entrepreneurial activities across various centres, departments, and faculties within the institutes, thus breaking the silos.
- Mobilise resources at the institute level for activating innovation and supporting preincubation, incubation infrastructure and facilities.
- Formulate Student and faculty startup Policy action plan at the Institute level with well-defined short-term and long-term goals.
- Create actionable awareness of innovation and entrepreneurship across the Institute.
- Introduce Pedagogy and Learning Interventions for Innovation & Entrepreneurship Development
- Design, Measure and monitor suitable KPI for Entrepreneurial Impact Assessment

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## 1.2.2.1 Innovation Task Force : I&E Coordinators (Department & Units)

#### Committee composition:

- Dean/Director I&E
- Faculty coordinators from Department & Units
- 3. Innovation mentors
- 4. Student innovation council
- 5. LC Innovation
- 6. LC Entrepreneurship

#### Responsibilities

- Organise Innovation and Entrepreneurship related events such as awareness programmes, orientation sessions, competitions, leadership programmes etc.,
- Facilitate with information for attending Innovation and Entrepreneurship related events organised externally.
- Identify innovation aspirant students and provide them with the required stuff in the Innovation pathway to proceed further.
- To explore innovative ideas, create a networking environment with facilitating units such as preincubation, incubation, COE, Research Park, IPR cell, EDC, etc.
- Collect and consolidate the necessary related data for submission of application to accreditation and ranking system.
- Build skills and competencies among students and faculties in the areas of innovation and entrepreneurship
- Seed and nurture an innovation pipeline and mentor the teams to create commercially viable startups and facilitate incubation support
- Recommend feasible, innovative ideas in the early stage for IPR cell to register appropriate IPs such as patent, design, copyright, trademark, trade secret etc., to protect legally.
- Continuously improve the methods, tools, and mentoring process to enhance the innovation & entrepreneurship ecosystem outcome.

 Connect innovators to suitable funding agencies/incubators for acquiring necessary funding and incubation facility based on the Technology Readiness Levels(TRL).

#### 1.2.2.2 Innovation Task Force: Innovation mentors

#### **Committee composition:**

- Dean/Director I&E
- 2 Innovation Ambassadors
- 3. External mentors from Industry/startup

#### Responsibilities

- Attend training and certificate programmes in IE activities organised by reputed incubators and government agencies.
- To identify and mentor the students with innovative thinking for developing subsequent stages of the innovation pipeline to reach incubation and Startup.
- To identify feasible, innovative ideas in the early stage for IPR cell to register appropriate IP such as patent, design, copyright, trademark, trade secret etc., to protect legally.
- To provide necessary feedback on mentoring process and innovative ideas to the higher level committee as valuable input to enhance the outcome of an innovation ecosystem.
- To advise innovators for suitable funding agency/incubators to acquire the necessary funding and incubation facility based on the Technology Readiness Levels (TRL).

#### 1.3 Dispute Resolution Committee

#### **Committee composition:**

- 1. Principal,
- 2. Dean/Director I&E
- 3. Faculty
- 4. Alumni entrepreneur (technology based),
- 5. representing Incubator,

6. Attorney/ legal advisor

#### Responsibilities

- Resolve disputes between parties related to Innovation and Entrepreneurship activities or alleged breach of clauses of this policy.
  - o Product Ownership Rights
  - o IP Rights
  - Startups and Stakeholders

## 1.4 Organizational Capacity, Human Resources, and Incentives (NISP- CL5)

The focus of Higher Education Institutions (HEIs) multifunctional roles goes beyond teaching and research, incorporating entrepreneurship and innovations and extending to technical skills, planning, policy analysis and formulation, and management. An organisational improvement positively affects their capacity to generate societal and economic values. As a capacity-building, the strategies should prioritise the following:

#### Recruitment

- (1) Institute shall recruit technical and administrative staff members who have a vital innovation and entrepreneurial/industrial experience, behaviour, and attitude to foster the I&E culture.
- (2) Faculty members and experts with prior exposure and interest shall be deputed as Innovation Mentors to foster the institutions' innovation ecosystem.
- (3) Departments shall be encouraged to on-board adjunct Faculty from the industry who shall be able to deliver innovation-centric teachinglearning pedagogies
- (4) Entrepreneur In Residence shall be introduced in various centres and shall be encouraged to offer credit/non-credit programs for students and faculty members.

#### **Training and development**

- (1) Faculty members shall be provided actionable awareness of the Innovation & entrepreneurship ecosystem in KCT during the Induction program.
- (2) Training programs shall be provided exclusively for faculty members, emphasizing skills enhancement in Innovation & Entrepreneurship.
- (3) Institute shall cover the expenditures of exclusively training selected faculty members as Innovation Mentors & Innovation Managers.
- (4) The institution shall foster an Innovation & Entrepreneurship activity among faculty members by organizing inter-departmental Ideathons, hackathons and boot camps.
- (5) Departments shall encourage their faculty and students to work on inter-departmental projects to maximize internal resources and knowledge.
- (6) Frequent interaction with external stakeholders such as alumni entrepreneurs, eminent faculties, and subject matter experts shall be encouraged to complement the skills needed for technology transfer.
- (7) Faculty members shall be encouraged to increase the Institute industry agreements emphasizing innovation and technology transfer.
- (8) Strengthening the entrepreneurial mindset among faculty members shall have experimented with various initiatives across the institution.
- (9) Faculty driven Alumni entrepreneurs club shall be created to increase entrepreneurship awareness and promote networking among faculty members and students.
- (10) Faculty career development initiatives shall include ongoing upskilling programs related to Innovation & Entrepreneurship.

#### **Rewards and Benefits:**

- (1) To attract and retain the right people, Institute will develop academic and non-academic incentives and reward mechanisms for all staff and stakeholders that actively contribute to and support entrepreneurship schedules and activities.
  - i. The reward system for the staff may include paid sabbaticals, office, and lab space for entrepreneurial activities, reduced teaching loads, awards, training, etc.

- ii. During their performance appraisal cycle, staff involved in innovation activities shall be awarded maximum benefits (e.g., Promotions, salary increments, performance bonuses).
- iii. Faculties with an exceptional contribution to mentoring startups (company) shall be allowed to have a dual role (Faculty and a consultant); thereby, the Faculty shall be paid by both the host institute and the company. The institute HR shall ensure that there is no conflict of interest.

#### 1.5 Financial Budget and Fund Mobilization

Kumaraguru College of Technology (KCT) is committed to providing continuous financial support to foster innovation and a startup culture among students and faculty members alike. In this regard, a robust funding mechanism shall be established to meet the financial requirements for various phases of the projects due for commercialisation. Therefore, the funding sources are broadly categorised as *internal* and *external*, and the exact scope is mentioned below.

#### Internal

- KCT shall create a separate budget head as Innovation and Startup under the institution budget, and the amount should be at least 1% of the proposed annual budget of KCT. Following expenses shall be covered under this head.
  - Expenses for building a prototype/proof-concept that has a very low Technology Readiness Level (TRL) unlikely to attract external funding
  - Organising/attending programs required to build commercially viable prototype/proof-concept.
- KCT shall establish a seed grant to support expenses to build prototypes/models required for the initial stages of commercialisation.
   Furthermore, KCT, through its technology incubation partner (Forge), shall provide infrastructure and other facilities during the incubation period of the Startup.

1% of the allocated fund for innovation will be utilised as follows:

SI. No.	Category	Utilisation of fund
1	Seed funding	40%
2	Infrastructure facility and maintenance	10%
3	IDEAS Laboratories	15%
4	Mentoring	10%
5	IPR Management	10%
6	Events and networking	5%
7	Recognition and Rewards	5%
8	Miscellaneous	5%

#### **External**

- KCT students and faculties shall provide equal opportunity to attract grants from public funding agencies such as DBT (BIRAC), DST, AICTE, TNSCST, and any other not-for-profit organisation. Budding entrepreneurs of KCT alumni shall be encouraged to participate as co-investigators/collaborators.
- KCT faculties and students shall be provided with the freedom to approach industry personnel and secure private funding. Such faculties and students shall be provided with an incentive throughout the project.
- KCT, through its Alumni association, shall encourage its alumni to make financial contributions/donations to the ongoing projects that are very likely (or higher TRLs) of commercialisation. Such contributions shall be spent on
  - KCT alumni shall financially contribute to a specific project in areas of their interest (or)
  - Alumni shall Contribute to the KCT seed fund in one lump sum.

#### 1.6 Product Ownership Rights (NISP- CL4)

a. When KCT's facilities/funds are used substantially or when IPR is developed as a part of curriculum/ academic activity, IPR is to be jointly owned by inventors and the Institute.

- Inventors and institutes could license the product / IPR to any commercial organisation, with inventors having a direct say.
   License fees could be either/or a mix of :
  - 1. Upfront fees or one-time technology transfer fees
  - 2. Royalty as a percentage of sale-price
  - 3. Shares in the company licensing the product
- ii. An institute may not be allowed to hold the equity as per the current statute, so SPV may be requested to have equity on their behalf.
- iii. If one or more inventors wish to incubate a company and license the product to this company, the royalties would be no more than 4% of the sale price, preferably 1 to 2%, unless it is a pure software product. If it is shared in the company, shares will again be 1% to 4%. There may be revenue sharing to be mutually decided for pure software product licensing between KCT and the incubated company.
- b. On the other hand, if product/ IPR is developed by innovators not using any institute facilities, outside office hours (for Staff and Faculty) or not as a part of the curriculum by the student, then product/ IPR will be entirely owned by inventors in proportion to the contributions made by them. In this case, inventors can decide to license the technology to third parties or use it as they deem fit.
- c. If there is any dispute in ownership, the dispute resolution committee will manage to solve the issues as per the guidelines of the IPR policy of the Institute, hopefully to everybody's satisfaction.

#### 1.7 Entrepreneurial Impact Assessment (NISP- CL10)

 COMMERCIAL success is the ONLY measure in the long run. Impact assessment for measuring the success should be sustainable social, financial, and technological impact in the market. Developing a sustainable enterprise model for innovations at the pre-commercial stage is critical.

- Formulation of strategy and impact assessment should go hand in hand, and will use the assessment form to review the I&E activity biannually and take necessary measures.
- 3. Institute's impact assessment evaluation is based on the IIC/ARIIA ranking framework, and the details of the assessment sheet are provided in Annexure- I. The evaluation sheet will be updated as per the changes in the IIC/ARIIA ranking framework.

2	Innovation Infr	astructure	and facilities

#### 2.1 Nurturing Innovations and Startups(NISP- CL 3)

## 2.1.1 Innovation Lab: IDEAS LAB (Ideate-Develop-Evaluate-Apply- Showcase LAB)

"IDEAS LAB" is an innovation Centre for

- Project-based or problem-based learning
- Apply the technology and technical tools
- technology infrastructure to build Proof of concept and early prototypes with systematic methodology/ process to curate the real-world problems and refine/ improve the technical skills

A multidisciplinary Laboratory to cater to the students and faculty members to develop and evaluate the idea's worthiness and application in real-world situations. Test the worthiness of the concept. IDEAS LAB helps the stakeholders to ideate, create(develop), iterate, evaluate, and showcase the POC and or early prototypes

## Requirements to establish or upgrade the existing labs to IDEAS LAB (Innovation Centre)

It shall engage the stakeholders (students and faculty members) to explore the possibilities and exchange ideas, experience them, and excel by enjoying the learning.

- Create a spacious place to be accessed easily at any time
- will have state-of-the-art equipment and Space for student group projects, capstone projects and creative projects with effective utilisation.
- Create an ecosystem to trigger interest/motivation to work on innovative projects(ideas) and bring dynamism among the stakeholders.
- More open spaces for discussion with a lot of whiteboards/large mobile whiteboards and post-its everywhere to ink their disruptive ideas (reconfigurable discussion spaces)
- Fluid workspace and illuminated display environment to showcase the POC or early prototypes.
- If it is multidisciplinary
  - > expose the students to various problems across different industries
  - > educate the students on various knowledge verticals
  - engagement of faculty members and industry experts /mentors from different verticals to share the insights, concerns, and opportunities

 Industry focus Innovation Centre – focused on industry and try to establish communication, sponsored or co-sponsored by a corporate, or sectors or industry associations

The theme of the innovation Centre enables the stakeholders to interact and articulate the problem statement adequately and identify the right opportunities, evaluate the variability and feasibility of the solutions to the problem.

#### 2.1.2 Pre-incubation Centre: Nurture your startup ideas

These centres provide opportunities to early-stage entrepreneurs for an average of six months to one year to turn the probable business into a real business. Synergise their business plan with global best practices such as validating project ideas, company planning and creation, and possibly developing an economically viable business.

- Collaborative structures are designed for both new and experienced entrepreneurs alike to incubate and grow their ideas into successful ventures
- Provides guidance and support required by the entrepreneurs to develop their business model to gain expertise and knowledge base.
- Provides practical training, excellent mentoring, a comfortable workspace, and other allied services for them to face challenges associated with running startups.
- Enhance their problem-solving skills, and strengthen their leadership, interpersonal skills, and emotional intelligence.
- Expand their network of professional contacts.

#### **Eligibility**

- A pre-incubated can be from inside or outside of the institution.
- A pre-incubated may or may not be a registered entity.
- Must have a socio-economic technology-driven idea & team
- Must have a technology-driven innovative idea

All the IDEAS lab and facilities requirements to create ideas into Minimum Viable Product (MVP).

## 2.1.3 Incubation Centre: Build your successful Startup and grow.

"Incubation" is a unique and highly flexible combination of business development processes, infrastructure, and people, designed to nurture and grow new and small

businesses by supporting them through the early stages of development. i.e., business incubation is a unique institutional arrangement primarily concerned with developing an entrepreneurial culture in a community.

"A business incubator is an Organisation that accelerates and systematizes the process of creating successful enterprises. They provide a comprehensive and integrated range of support; This includes incubator space, business support services, clustering and networking opportunities" (Centre for Economic and Social Services 2002).

Coimbatore Innovation & Business Incubator (CIBI) also branded as Forge founded with the vision to create & catalyse innovation-powered enterprises that harness the power at the intersection of hardware, software, and computing technologies to solve real-world problems, creating economic gains and delivering social impact.

#### 2.1.3.1 FORGE.FACTORY:

A 20,000 sq.ft. incubation centre with comprehensive infra, facilities and services covering coworking (200+ seating capacity), product innovation labs, shared office facilities, event centres, community spaces etc.

From connected devices, intelligent machines, and autonomous vehicles to industrial sensors, this MIT-accredited Fab Lab has emerged as a one-stop-shop for building innovative industrial-grade hardware solutions. In addition to nurturing startups bringing Digital, AI and Robotics solutions to the manufacturing sector, this station will bring a stronger focus to the Future Cities, Precision Agriculture and Assistive Devices sectors.

The Centre has developed a comprehensive infrastructure for open industrial innovation with a two-tier architecture. The technology lab infrastructure offered by Forge, branded under the identity HWjunction, has been designed to catalyse the hardware/tech innovation pursuits of innovators, makers, creators, tinkerers, startups & entrepreneurs. The vision is to create & catalyse innovation-powered enterprises that harness the power at the intersection of hardware, software, and computing technologies to solve real-world problems, creating economic gains and delivering social impact.

The upper tier consists of the Innovation Centre of Excellence (CoE) with a specific

industry focus in potentially high-growth sectors, including future Mobility, Aerospace and Defence, Factory AloT, Advanced Manufacturing, Precision Agriculture, Smart Cities, and Assistive Devices. These focus areas offer key strategic opportunities for our government and corporate partners to leverage open innovation through startup collaboration.

To support these Innovation CoEs, the lower-tier of Technology Labs offers enabling technical infrastructure for supporting innovators to rapidly design, develop and verify industrial-grade prototypes. These labs offer equipment, tools and critical technical resources spanning embedded electronics, desktop electronics assembly, additive manufacturing, industrial controls & automation, robotics, advanced computing, IoT sensors, augmented/virtual reality, hardware prototyping tools, electronic/mechanical workbenches etc. The HWjunction is MIT Accredited Digital Fabrication Lab offering digital manufacturing technology through industrial-grade fabrication and flexible computer-controlled tools.

#### 2.1.3.2 Technology Infrastructure - Innovation CoEs

- 1. Future Mobility
- 2. Aerospace and Defence
- 3. Factory AloT (Future Factories)
- 4. Advanced Manufacturing
- 5. Precision Agriculture
- 6. Future Cities
- 7. Assistive Devices

#### 2.1.3.3 Technology Infrastructure - Technology Labs

- 1. Industrial Sensing & Control
- 2. Industrial Automation
- 3. IoT (Sensors & Networks)
- 4. Autonomous Systems & Robotics
- 5. Electronics Rapid Prototyping
- Advanced Computing
- 7. Machine Vision & Optoelectronics
- 8. Electrification & Electric Mobility
- 9. Industrial Design/Prototyping & Rapid Manufacturing
- 10. Additive Manufacturing (Plastic/Metal)

KCT Innovation and Start-up Policy (KCT-ISP)

- 11. Battery Tech & Power Electronics
- 12. Data Science/Analytics
- 13. Augmented/Virtual/Mixed Reality
- 14. RF Communications
- 15. IT/Data/Networking

40

3. Educators	and	students

42

### 3.1 Creating Innovation Pipeline and Pathways for Entrepreneurs at Institute Level(NISP- CL6):

Innovation Pipeline and Pathways for Entrepreneurs at Institute Level is shown in figure no. Figure 1

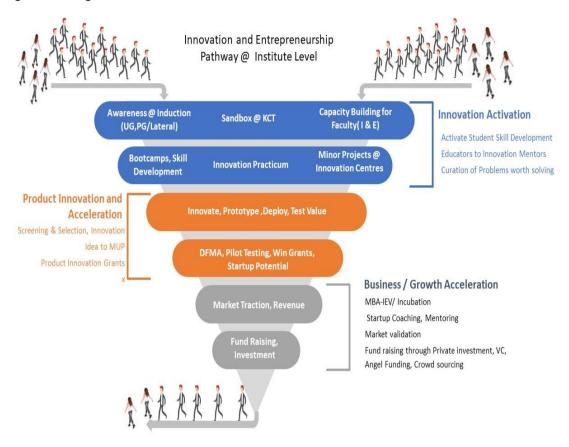


Figure 1: Innovation & Entrepreneurship Pathway at Institute Level

#### 3.1.1 Innovation Activation.

#### A. Capacity Building

#### I. Innovation mentors

- Educators are allowed to get trained to become innovation mentors.
- Enabled with tools and techniques
- Innovation process
- Industrial Internship
- Financial support to attend training and workshops
- External mentorship from experts.

#### II. Repository for problem statements

 Identification and selection of problem statements from industry and society.

- Problem statements are converted to challenging briefs.
- · Review and approve of challenge briefs.
- Curated statements (challenge briefs) are published to activate the innovation.

#### III. Institution's Innovation Council and its function

KCT-IIC is actively coordinating the Innovation and Entrepreneurship activities round the year and participating in Nation-wide IIC rating with excellent score and reward.

Primarily, the role of IIC is to engage large number of faculty members, students and staff in various innovation and entrepreneurship related activities such as ideation, Problem solving, Proof of Concept development, Design Thinking, IPR, project handling and management at Pre-incubation / Incubation stage, etc., so that innovation and entrepreneurship ecosystem gets established and stabilized in the College.

#### IV. IPR cell

Intellectual property plays an important role in providing a competitive edge to any Institution. The tangible assets like inventions, designs, software, brand name and other creative & innovative ideas are more valuable than physical assets. KCT IPR Cell is committed to encourage, protect, manage and commercialize Intellectual Property such as Patent, Copyright, Trademark etc. generated through the College. The cell creates conducive environment in the academics for the development of Intellectual Property. Faculty and students of KCT are actively participating in the IPR filing process in different disciplines of Engineering & Technology.

#### V. I&E walk-in centre

It is one stop facilitating centre provides guidance to innovators and entrepreneurs through complete process flow of Innovation and Entrepreneurship.

#### **B. SENSITIZATION AND ACTIVATION**

It activates the student skill development by defining, designing, and developing.

- Sensitise it through Awareness programmes (open houses), orientation, boot camps and startup fests at various stages to ignite the curiosity to apply technology to solve real-world problems. (6a iii-NISP)
- Ready reckoner kit to students to have innovation and entrepreneur tour
- Innovation quotient assessment to validate the innovation.
- Ideation workshop/Ideation to Ideate solutions for a problem worth solving and develop a POC
- Hackathon
- startathon
- Investor meets, Seed Fund for POC
- Skill and competencies required for the I&E ecosystem

#### 3.1.2 Product Innovation and acceleration

- Investors' meet must be organised to create a platform for the budding entrepreneurs to meet investors and pitch their ideas.
- The innovative Product expo shall be organised to create a network among the students, startups, Alumni, and experts.
- Standard Operating Procedures (SOP) must be framed for Screening and selecting innovative ideas to transform into the next level in the innovation pipeline.
- Institute must facilitate converting Innovative Ideas to minimum usable products (MUP) through incubation facilities.
- Institute's innovation funding mechanism should provide the necessary grant for qualified, innovative products to accelerate the startup process.
- The incubation centre must devise a suitable mechanism to incubate the innovative idea to the startup level with milestones and metrics such as TRL, SRL, MRL and IRL.
- IPR cell must facilitate all types of Techno-legal support to protect and manage the Intellectual Property developed in the Innovation ecosystem.

#### 3.1.3 Business /growth Acceleration

#### 3.1.3.1 Incubation

Incubation center collaborates with the Government and Industry to exploit strategic opportunities by co-creating with Innovators and Startups for scaling up the digital transformation of industrial sectors in India through innovation powered by AI, IoT, optical/power electronics, edge computing, robotics, power electronics, visual intelligence, electric powertrains, additive manufacturing, advanced materials, augmented/virtual reality etc. To harness the power of entrepreneurial innovation, centre offers programs for managing industrial open innovation, leveraging its 360-degree innovation infrastructure, capabilities, networks and programs.

#### 3.1.3.2 Startup coaching, mentoring, and networking

The strategic advisory offered to startups is under three key outcome areas of Tech/Product acceleration for Operational Excellence, Business acceleration through Commercial Partnerships, and Strategic Investments. These value added services are offered under tracks of Tech/Product Management, Market/Business Development, and Venture Development in the form of boot camps, office hours with mentors/experts, combined with engagement as a Member/Observer on the board.

Frameworks are developed and implemented to assess, track and monitor their progress on the venture outcomes in the areas of Product development & roadmap, Business & Revenue model, marketing & sales pipeline, investments, etc.

Center offers various programs with ample resources and services for startups to achieve rapid progress in refining their marketing, sales, and distribution strategies, setting the early-stage industrial technology startups on a firm path towards achieving product-market fit, and thereby making them attractive for venture investments.

For startups that have shown significant progress in their product, market & business development outcomes, the centre actively facilitates investor connections with Angel/VC investors and also offers them counsel in determining the amount of funding required, dilution in equity, presentations, financial planning and analysis, budget forecasting etc. during due diligence undertaken by prospective investors.

## 3.1.3.3 Business support services at a subsidised cost

Center as the Strategic Partner Incubator to Corporate, Open Innovation & Startup Accelerator programs can facilitate Strategic Investment and Acquisitions initiatives in industrial technology startups to help these corporates create inorganic growth assets through equity ownership.

## 3.1.3.4 Education on Financial management and risk capital

In order to enable the startups for better commercial success and achieve greater venture outcomes, centre has created several tools, techniques and methodologies which form the core of the Incubation at the center.

"Forge Startup MIS" and the "Forge Venture Rubric (FVR)", are two key frameworks developed and implemented across all of Forge Incubatees primarily to assess, track and monitor their progress on the venture outcomes in the areas of Product development & roadmap, Business & Revenue model, marketing & sales pipeline, investments, etc.

### 3.1.3.5 Forge Venture Rubric

Forge Venture Rubric is a framework to assess & validate the startup's potential to emerge as a winning technology/product in the industrial digital transformation market and a high-growth industrial technology company. This assessment helps to identify specific interventions that are critically needed to accelerate the startup towards technology, product, market, and growth outcomes.

At Forge, consultancy/strategic advisory to startups is provided primarily through the Forge Venture Rubric (FVR), a startup & venture diagnostic

tool developed by Forge to validate a startup's potential to emerge as a winning technology/product and a high-growth industrial technology company in the industrial digital transformation market.

The FVR focuses on 6 attributes that are critical to the success of any Industrial Deep Tech startup:

- 1. Market opportunity
- 2. Technology advantages
- 3. Team & Capabilities
- 4. Product advantages
- Product readiness
- 6. Growth readiness

These 6 parameters are then broken down into 4 sub-parameters, under which the startups are assessed and given a particular score. This assessment/scoring under each sub-parameter helps the startups identify the gaps and thus forms the basis for Forge to provide specific interventions that are critically needed to accelerate the startup towards technology, product, market, and growth outcomes. FVR is designed in such a way that it functions as a diagnostic tool as well as a tool that provides strategic insights to startups. The consulting/strategic advisory to the startups is provided in the form of boot camps, one-on-one office hours, and workshops with technical & domain experts.

#### 3.1.3.6 Forge Startup MIS

Forge Startup MIS is an Integrated dashboard providing a framework for the startups to capture and present current progress as well as their future plans over a significant planning horizon in a single place to efficiently manage their venture development as well as enabling the Forge Investment Council to make data-driven recommendations to put the startup on the growth trajectory.

#### 3.1.3.7 Market validation

Center facilitates deep engagement for startups with several top industrial companies for gaining strategic partnerships in joint tech/product development, Go to Market (GTM)/commercial partnerships, strategic investments, etc.

As part of the Market Access support, Center handholds startups throughout the entire process of engaging with corporate partners right from Application, Presentation, Review & Approval of the project plans and budget estimates of Pilot Implementation Projects (PIP) including techno-managerial tasks, documentation of technical / commercial / operational plans and design.

Center in its role as Partner Incubator to Corporates, ensures implementation of necessary decision making or project plan evaluation frameworks, and all forms of coordination required between startups, and key executives/departments of Corporate Partners to ensure smooth implementation of Pilot Processes while ensuring the goals of the startup and the corporate partner are met in terms of proof of validation and business impact.

# 3.1.3.8 Fundraising via private investment through Venture capital, Angel funding and crowdsourcing.

Center has partnered with several Institutional Investors and VC firms. Center has 10+ partnerships with multiple investors and VC firms to support startups with investment support. Investors & VCs shall together bring resources & capabilities in terms of sourcing & selection of startups, angel funding, VC/seed funding, investment committee operations, portfolio management, mentoring & providing strategic advisory to startups, etc.

Center support startups with innovation grants & seed money, under various schemes.

- Innovation Grants for accelerating product Innovations through the central/state government schemes and corporates.
- Startup Seed Capital in the form of equity/ Compulsory Convertible
   Preferential Shares (CCPS) investments and startup-friendly success
   linked payback mechanisms

### 3.2 Pedagogy and Learning Interventions for Entrepreneurship Development (NISP-CL8)

In this era of unprecedented policy changes in higher technical education – NEP, AICTE startup policy, ARIIA ranking, recognizing Innovation and Entrepreneurship as being not only primary outcomes of engineering and technical education but also pivotal elements for integrating experiential learning into the core of the curriculum and pedagogy, Innovation Practicum @ KCT acts as a proven model for bringing the vision into action.

The learning journey of aspirant (Future Entrepreneur) Through Innovation Practicum is shown in Figure 2

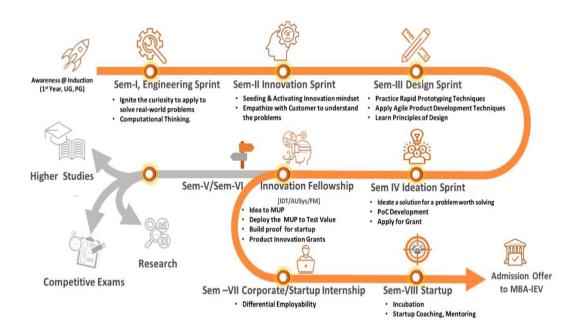


Figure 2: The learning journey of aspirant (Future Entrepreneur) @KCT

- 1. A program that provides a comprehensive innovation process for institutions impacting students from the first year to progressively identify the best of talent to harness the real power of technology to solve industrial problems.
- 2. This program provides an approach to help academic institutions transform their students into problem solvers & innovation engineers, and the faculty members into innovation mentors & entrepreneurial coaches. `

- 3. It serves as an adjunct program to Engineering education, to help develop a curious mindset in students pursuing science and engineering education by involving them in a rigorous process of discovering challenges in the real world, designing innovative ideas & building technology products/solutions. This accelerates their learning to build & apply TOOLS and demonstrate TALENT by implementing cross-functional TECHNOLOGIES in a practice-based learning environment.
- 4. Innovation Practicum is an Institution's Industrial Innovation program that enables higher technical education Institutions to execute the methodology, processes and frameworks designed and developed by Forge (KCT-TBI) to manage and drive innovation outcomes. Advantage of IP for colleges are,
  - 4.1 Innovation Practicum provides a comprehensive innovation process for institutions to impact students right from the very first year with opportunities to identify and harness the real power of technology to solve industrial problems and challenges.
  - 4.2 It encompasses a comprehensive model with programs that can be integrated with the science and engineering curricula and a framework offering infra, resources, tools, equipment, etc. that are required across the entire spectrum of the innovation process by setting up IDEAS LAB.
  - 4.3 The content, curriculum, assignments & assessments are designed & delivered through digital Platform which can be facilitated by faculty members trained as Innovation Mentors for students working in transdisciplinary teams.
  - 4.4 Entrepreneurship education should be imparted to students at curricular/ co-curricular/ extra- curricular level through elective/ short term or long-term courses on innovation, entrepreneurship, and venture development. Validated learning outcomes is transparent and is made available to the students. Customized teaching and training materials shall be developed for startups.( are under development)

# 3.3 Norms for educators and student Startups (NISP-CL7)

- I. Only Technologies originating from within the Institute shall be considered for Faculty startup.
  - a. Role of Faculty may vary from being an owner/ direct promoter, mentor, consultant, or as on-board member of the Startup.
  - b. Regular duties of the faculty should not suffer owing to his/her involvement in the startup activities.
  - c. Faculty startup may consist of faculty members alone or with students, faculty of other institutes, alumni, or entrepreneurs.
- II. If the faculty/ staff holds the executive or managerial position for more than three months in a startup, they will go on sabbatical/ leave without pay/utilise existing leave.
- III. Faculty must separate and distinguish ongoing research at the Institute from work conducted at the startup/ company.
- IV. In case of selection of a faculty startup by an outside national or international accelerator, a maximum leave (as sabbatical/ existing leave/ unpaid leave/ casual leave/ earned leave) of one semester/ year (or even more depending upon the decision of executive committee constituted by the Institute may be permitted to the Faculty.
- V. Faculty must not accept gifts from the Startup.
- VI. Faculty must not involve research staff or other staff of the Institute in activities at the Startup and vice-versa.
- VII. Human subject-related research in Startup should get clearance from the institution's ethics committee.

# 3.4 Engagement of students and educators with startups

Now institutions/universities worldwide encourage and enable their faculty members, researcher, and students, to be encouraged and to be involved in startups in various capacities while in professional employment with the university/institute. To promote innovation and entrepreneurship among the students and

faculty members, KCT encourages faculty members and students to undertake entrepreneurship-related activities. Encourage the participation of faculty members and students in commercial ventures, companies, or similar entities with equity participation as an additional dimension to their existing roles. KCT encourages its faculty members and students to engage in businesses that are direct results of the research activities at KCT and be on the board of such companies in the capacities of director, chairperson, promoter or any such role, subject to the terms and conditions of KCT Startup Policy applicable

To permit and enable the faculty members, research scholars and students to set up and involve in Start-ups both at the campuses as well as outside the campuses, KCT may consider the following guidelines for the same:

- Any permanent faculty member of staff on-duty or leave, Faculty on tenure, research associates, and students having live Registration (KCT members) be permitted to involve with startups either on a fullor part-time basis as promoter /advisor /consultant / any other approved role.
- The faculty member or staff on- duty or leave, Faculty on tenure, research associates, and students will be permitted to use specified physical and intellectual resources of KCT as per prevailing rules notified by KCT. (e.g., laboratory and workshop equipment, laboratory instruments, IT resources and assistance of other KCT Members)
- The definition of Start-up considered for this document will be as per
  the prevailing notifications of the Government of India from time to
  time. The current purpose of the Startup is an entity headquartered in
  India, incorporated less than ten years ago, and has an annual
  turnover as described by Government of India.
- The Start-up was formed by the faculty member/staff /students promoted by the individuals and not by KCT nor KCT-TBI
- It also must be ensured that no reputational or financial liabilities accrue to KCT, and the equity stake of KCT-TBI(FORGE) (as agreed in the agreement between KCT-TBI and the company) in the company is protected.
- Participation in start-up-related activities will be considered a legitimate activity of faculty members and teaching, conducting

research, guiding researchers, providing industrial consultancy, and completing management duties. Participation in Start-up shall be considered a criterion while evaluating the annual performance of faculty members. Each faculty member is encouraged to mentor at least one Startup.

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#### 3.4.1 Engagement of Educators with Startups

#### 3.4.1.1 Capital investment by Educators

#### i. By way of shares without the involvement

- A KCT faculty member may be involved in a startup by providing capital investment alone in return for shares with no other managerial, technical or mentorship role.
- Suppose a KCT faculty member makes a financial investment in a startup or a company without making any contribution in the form of technical/consulting advice or any involvement of KCT in the form of any commercial transaction or intellectual property or use of KCT facilities, the investment is considered as a private matter of the faculty member and no concern to KCT.
- KCT TBI, too, will have no role to play in such instances.
- However, the faculty member may declare this to KCT, or IIC/KCT-TBI(FORGE) is a good practice to avoid conflict of interest.
- If a startup or any company awards a consultancy project to a KCT faculty member, the prevailing KCT rules and regulations for consultancy projects will apply.

#### ii. By way of sharing with involvement

- Suppose a KCT faculty member makes a financial investment in a startup or a company and by making any contribution in technical/consulting advice. If there is no involvement of KCT in the form of any commercial transaction or intellectual property or use of KCT facilities, the prevailing norms w.r.t. the policy will apply.
- Serve only in advisory or consultative roles at the company [as opposed to managerial roles or titles (e.g., CTO)

- suggesting management responsibility].
- Limit consulting for the company to a maximum of 13 days a quarter (weekly one day but should not exceed 13 days in a quarter), per the institute policy. (Duration for the consulting hours shall be extended based on the discretion of the Committee)
- Take a leave of absence if engaging in a management role
- The faculty member must declare this to the KCT or IIC to avoid any conflict-of-interest situation.

#### 3.4.1.2 Part-time engagement of Educators in startups

- The faculty member will seek approval from KCT for engagement with a startup on a part-time basis as per general KCT rules.
- KCT will recommend the eligible cases to the KCT management through the principal for approval.
- The faculty member must apply for approval for engagement with the Startup, and the Startup must agree with KCT. Such an agreement should establish the mode of employment of the faculty member with the Startup besides including the KCT technology / Intellectual Property licensed to the Startup.
- Regarding the extent of time spent on such participation, the compensation to the faculty member may be in cash, for which KCT norms for consultancy projects will be applicable.
- Alternately, the faculty member will be allowed to obtain shares of the startup/company as compensation for engagement with the company in part or in full, in place of cash payment. In such cases, the faculty member will offer a certain percentage of these shares to KCT. Shall transfer the shares to KCT on the same valuation terms.
- Members can participate in a Startup part-time if they do not spend more than 20% of office time on the Startup in the advisory or consultative role [NISP 3. j, pp 14] and do not compromise their existing academic and administrative work/duties. There is no conflict of interest as per Institutional norms.
- Other short-term leaves that benefit the Faculty, such as casual leave/ earned leave/ special casual leave, will be allowed to be

- available for any Startup related activity. Activity can be as exposure visits/ mentorship/ Networking visits/attending Start-up events etc. at any time in the year, provided Faculty make adequate alternative arrangements to perform regular duties. [NISP 3. g, pp 14]
- The teaching load of the Faculty actively involved in Startup related activities may be reduced or adjusted to facilitate such work. Such a faculty member may be allowed to take one working day every week to work on their startups for a specified duration with the recommendation of the Committee. Institute/Department should adjust the regular duties to facilitate such activity. [NISP 5.e.i, pp 17]
- The faculty member/staff can hold shares of the Start-up company for the engagement with the company; however, such a faculty cannot hold the Full-Time Positions in the Startup. [NISP 3.j, pp 14]
- The faculty member will offer not more than 9.5%/ or (percentage of the shares as decided by BoG) /revenue provided to them to KCT.
   [NISP 3. j, pp 14]

However, the above provisions shall be subject to the rules applicable to the employees of KCT

# 3.4.1.3 Full-time engagement of Educators in startup availing sabbatical and special leave to setup startup/ entrepreneurship

- KCT shall allow the faculty and staff members to avail either sabbatical or special leave(SPL) for a semester/year (even more, depending upon the recommendation of the Executive Committee (EC)) as per prevailing KCT rules and to work full time for the Startup and then report to the academic duties after leave.
- Permission will be initially given for six months and shall be extended every six months based on the Executive Committee's recommendation.
- The faculty member shall seek approval from KCT for the sabbatical/SPL, and the decision shall be taken by an appropriate committee appointed for the same.
- Alternatively, they can devote full time by keeping lien with KCT.

- The faculty member must apply for approval for engagement with the Startup, and the Startup must agree with the norms of the incubator [KCT-FORGE (TBI)]. Such an agreement should establish the mode of employment of the faculty member with the Startup besides including the KCT technology / Intellectual Property that will be licensed to the Startup.
- The faculty member will receive salary during sabbatical leave but will not receive any compensation on SPL.
- Compensation offered to the faculty member through shares and cash must be declared by the faculty/staff member to KCT
- During the period of SPL, the faculty member can receive compensation from the Startup in cash which is not necessary to be shared with KCT as they will not be receiving any salary during this period. However, if the Faculty receives compensation from the Startup during sabbatical leave, KCT prevailing norms for consultancy projects will also be applicable.
- However, when on SPL, if the compensation received from the Startup
  is related to any work done in KCT, then KCT norms for consultancy
  projects will be applicable. They will be required to share a certain
  percentage according to the prevailing norms. The same will also apply
  to those on sabbatical leave.
- Faculty members on SPL will be allowed to obtain shares of the startup/company as compensation for engagement with the company in part or in full, instead of cash payment. However, they will not be required to share any part of these shares with KCT as they will not be receiving any salary during this period.
- Faculty members on sabbatical leave, too, will be allowed to obtain shares of the startup/company as compensation for engagement with the company in part or in full, instead of cash payment. He(she) will be receiving a salary also during this period. However, they will be required to share a certain percentage of shares with KCT as per the prevailing norms, regardless of whether it is related to any work done at KCT. Shall transfer the shares to KCT/KCT-FORGE on the same valuation terms.
- After completing the sabbatical or SPL, the faculty member will re-join KCT. Post and no compensation are due to KCT if the member's

involvement, which paid the payment, completely ceases after the leave period.

- The faculty member may continue to involve with the Start-up as a shareholder on re-joining KCT after a sabbatical or SPL.
- The rules applicable to the faculty members involved as a mentor, consultant, or other forms other than a shareholder after a sabbatical or SPL will be the same as part-time engagement listed on re-joining KCT after sabbatical /SPL/EL.
- The institution will consider using its resources to faculty/staff to establish a startup as a full-time effort. May preserve the seniority and other academic benefits for individual staff or faculty members during such period. [NISP 3.g, pp 14].

However, the above provisions shall be subject to the prevailing requirements and conditions of the code of conduct rules as approved by the Advisory Committee of KCT.

# 3.4.2 Engagement of Research Scholars and Students with Startup.

- KCT may allow students to work on their innovative projects and set up startups (including Social Startups) or work as interns/part-time in startups (incubated in any recognised HEIs/Incubators) while studying. [NISP 3.b.iii, pp 13]
- Student inventors may also be allowed to opt for Start-up in their mini project/ major project, seminars/symposium/conferences, summer training, etc. The area in which a student wants to initiate a startup may be interdisciplinary or multidisciplinary, with team members from various departments depending on the need of the project. The KCT-TBI/IIC shall notify such scrutinised proposal to the concerned departments for further processing. [NISP 3.b.iii, pp 13].
- The credit points may be awarded to students working for startups with the recommendation of any KCT-TBI/IIC or any other TBI and as per the regulation of KCT. [NISP 3. e, pp 13]
- UG/PG/ Research Scholars working full-time/part-time are given

the liberty to add a competent joint supervisor and propose a thesis topic that aims to create a Startup. Policy favours should suitably modify the requirements for submitting a thesis (for the award of Degree) for such students/scholars with due weightage to IPR/ product development/publications or any other such requirements as per the regulations of KCT. [NISP 3.b.iii, pp 13]

# 3.4.2.1 Full-time engagement of Research Scholars and Students with Start-up

- A KCT research scholar/student can seek permission from KCT to take Special Leave (SPL) for up to one year, extendable by another year (i.e., a maximum of two years) as per prevailing KCT rules to work full time for the Startup.
- A research scholar/ student can approach IIC(EC) / FORGE to grant permission to take special leave for a semester or an additional period to work for a startup full-time.
- Granting of special leave shall be done for a specific period. The IIC/FORGE will coordinate for the approval through the proper channel post student registration. Students shall be considered for the break of study as per the regulations of KCT. Granting special leave is not permitted, and students will not get a scholarship (if there is any) for this duration. Upon re-joining, the Research Scholar/ Student must satisfy all norms (as per the Regulation of KCT) to earn a degree.

## 3.4.2.2 Part-time engagement of Research Scholars and Students with Start-up

- A research scholar/student can seek permission from IIC/FORGE,
   KCT, to work for a startup part-time as per the prevailing KCT rules.
- Students pursuing entrepreneurial ventures while studying should use institute addresses to register their company with due permission from the KCT/IIC. [NISP 3.c, pp 13]
- A research scholar/student must apply for approval for engagement with a startup, and the Startup must agree with KCT-FORGE(TBI).

Such an agreement should establish the arrangement of the research scholar/student with the Startup besides including the KCT Technology / Intellectual Property licensed to the Startup.

- Regarding the time spent on such participation, the compensation to the research scholar/student may be in cash. KCT norms for consultancy projects will be applicable only to research scholars and not students.
- Alternately, the research scholar/student will be allowed to obtain shares of the Start-up as compensation for the engagement with the company in part or in full, instead of cash payment. In such cases, research scholars will offer a certain percentage of these shares to KCT-FORGE. Shall transfer the shares to KCT-FORGE on the same valuation terms. Students will not be required to share any portion of their claims with KCT-FORGE
- KCT will promote interdisciplinary startups, and the students will be allowed to take their mini/ major projects from any subject area as per the need of the Startup. The team for such projects may involve students from various disciplines as per the need of the Startup. It will also be allowed to opt for a competent supervisor/mentor from within or outside the Department/ Institute. The IIC//KCT/KCT-FORGE will make specific norms/ recommendations for this. [NISP 3.b.iii, pp 13]
- Students/research scholars must satisfy the attendance as per the KCT academic regulation. [NISP 3.d, pp 13]

# 3.4.3 Engagement of Educators and students with Start-up

When faculty members and students engage in Start-up together as a joint venture, either part-time /full-time engagement,

#### 3.4.3.1 Part-time engagement with Start-up

Norms as indicated in 3.4.1.2 and 3.4.2.2 shall apply

#### 3.4.3.2 Full-time engagement with Start-up

Criteria shown in 3.4.1.3 and 3.4.2.1 shall apply

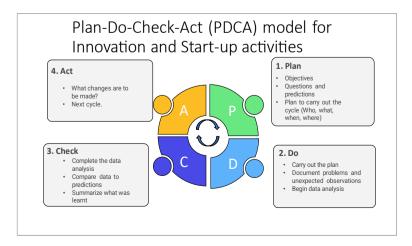
# 3.5 Collaboration, Co-creation, Business Relationships and Knowledge Exchange (NISP-CL9)

- KCT shall connect the start-ups to other seed-fund providers/ angel funds/ venture funds or itself may set up seed-fund (on an ad-hoc basis) once the incubation activities matured.
- KCT shall support to students who show potential, in pre-startup phase
  to link their start-ups and companies with wider entrepreneurial
  ecosystem. The institute shall take advantage of the Alumini cell and
  office of student affairs, whichever applicable.
- KCT shall organize various networking events (at least once in a year) to provide a platform for the budding entrepreneurs and to meet various investors, pitch their ideas, and to exchange ideas with experts.
- KCT shall engage an institute level coordinator to monitor the collaborative activities and the respective outcomes.

# 3.6 Continuous improvement system- Measure and monitor

A Continuous improvement system for the institution is designed w.r.t the Innovation and Startup framework activities. The procedure involves Plan-Do- Check Act (PDCA) model for continuous improvement. The below

Figure 3 gives the proposed PDCA model for innovation and startup framework.



#### 3.6.1 Planned activities:

#### A. Objectives:

- Constitute a guiding framework to actively engage students, educators and alumni in innovation-related activities by promoting various initiatives and providing necessary support.
- 2. Establish an innovation management system that supports the generation of ideas and transforms them into commercial products / projects / businesses using tools, processes, feedback loops and collaborations.
- 3. Create an ecosystem to support and nurture innovations that seed entrepreneurship & enterprise creation
- 4. Design a system to measure, monitor and continuously improve the quantity and quality of the innovation pipeline.

#### **B.** Questions and Predictions:

The continuous improvement process developed will answer the following questions:

- How to develop the planned activities- Planned activities are developed w.r.t the IIC and ARIIA ranking framework and brainstorming workshop activities carried out with the stakeholders.
- What are the planned activities? The planned activities are listed in (Annexure 2)
- Who will monitor and execute the plan? The IIC: Executive committee members will monitor and execute the plan.
- At what intervals are the planned activities for the Institution- The list
  of planned activities with intervals are listed below. The planned
  activities are divided into five domains (key result area- KRA) Viz,
  - 1. Inspiration, Motivation, and Ideation 13 KPIs
  - 2. Validation and concept development- 9 KPIs
  - Prototype, Design, Process Development for Business Model/ Process/ Services- 14 KPIs.
  - 4. Startup and related Ecosystem-19 KPIs

5. Financial and Infrastructure for Start-up ecosystem-21 KPIs.

#### 3.6.2 Do:

The Planned activities are executed by the department IIC Coordinators and executive committee members every year. The Executive Committee and presentation will Analyse the data collected from the institution to the advisory Committee.

#### 3.6.3Check:

Detailed analysis of the KPIs w.r.t KRAs is to be studied, and areas for improvement will be identified.

#### 3.6.4Act:

The Identified problems are to be analysed with DMAIC (Define, Measure, Analyse, Improve and Control) model and a better solution is suggested for continuous improvement.

#### 3.7 Conflict of Interest

The innovators / educators and students / entrepreneurs / Industry personnel / investors are required to disclose any conflict of interest or potential conflict of interest.

Conflict of interest related to personal, technical, IPR aspects should be explicitly disclosed to the Advisory Committee of KCT innovation and startup policy. In such case, dispute resolution team should be informed and arrived at smooth agreement.

### 3.8 Dispute Resolution

In case of any disputes between KCT and the innovators / educators and students / entrepreneurs / Industry personnel/investors regarding the implementation of the innovation and start up policy, the aggrieved party may appeal to the dispute resolution committee. Efforts shall be made to address the concerns of the aggrieved party through the appointment of a committee of experts and the verdict of the advisory committee is final.

### 3.9 Exit Policy

In the event of non-compliance of KCT -ISP terms and conditions, innovators / educators and students / entrepreneurs / Industry

personnel/investors, founders, follow the smooth exit. The non-compliance includes changes in promoters/founders' team or business proposition, merger or acquisition deal with change in ownership.

### 3.10 Revision of Policy

Institute shall continuously monitor the implementation of the startup policy and periodically consider modifying its policy in the spirit of the State/Central Government guidelines.

### 4. Bibliography

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- For Faculty: Best Practices for Startups, Stanford University, https://otl.stanford.edu/industry/stanford- startups/faculty-best-practicesstartups, visited on 5th September, 2019.
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- 10. Karnataka Startup Policy 2015-2020

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### 5. Annexures

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### **Annexure-I**

### **Entrepreneurship Impact Assessment Sheet**

S. No.	Assessment questions	Remarks
	Number of co-curricular events related to Innovation and	
1	Entrepreneurship (I & E) conducted by the HEI	
	Number of co-curricular events related to I&E organised by	
	external organisations where students/faculty members of	
2	HEI were sent to participate/represent	
	Number of full-fledged programmes/courses in Innovation /	
	Entrepreneurship / Intellectual Property offered by the HEI	
3	(Diploma/ UG/ PG/ PhD)	
	Number of short-term Certificate courses or Elective	
	group(s)/ Major or Minor Specialisations/ Core Credit	
	courses offered by the HEI in Innovation and	
	Entrepreneurship (I & E) of a minimum of 30 contact hours	
4	of duration	
	Number of I & E related MDP, EDP, FDP, Employment	
	Generation Skill Development Programs conducted by HEI	
	(Approved by Regulatory bodies of HEIs or other State and	
	Central government agencies) of a minimum of 30 contact	
5	hours of duration	
	Several full-time Faculty who have completed any	
	specialised training programme of I & E (MDP, EDP, FDP,	
	Certificate course of minimum 30 contact hours of duration)	
	conducted by State and Central government agencies (for	
	example, AICTE, MIC, Ministry of MSME etc.), knowledge	
6	agencies etc.	
	The number of entrepreneurial skill	
	development/employment generating training programmes	
	conducted by the HEI for external participants (residents,	
7	community members, alumni etc.)	

S.	Assessment questions	Remarks
No.	, , , , , , , , , , , , , , , , , , ,	
	Several full-time Faculty with a degree (UG/PG/PhD) in	
	entrepreneurship/innovation/ IPR and(or) received training	
8	on I&E and IPR.	
	Number of active Ideas/ Innovation centric Student Clubs in	
	the HEI with access to co-working space/ work- stations for	
	students with facilities & equipment available for I & E	
9	activities	
	Existence of Preincubation centres such as Tinker Lab/	
	EDC/ IEDC/ New Gen IEDC/ etc. with a minimum Space of	
10	>= 600 sq. ft. floor area	
	Existence of Incubation Unit with minimum Space of >= 1500	
11	sq. ft. floor area	
	Existence of Research Park/Innovation Park with minimum	
12	Space of >= 5000 sq. ft. Floor area.	
	Existence of Centre of Excellence with Advance Tools &	
13	Equipment with minimum Space of >= 1000 sq. ft.	
	Existence of IPR Cell / Patent Facilitation Unit / Technology	
14	Transfer Centre at the Institute	
	Number of dedicated Staff to oversee I & E activities under	
15	the leadership of a senior professor/Head of the Institute	
	Number of empaneled external experts/ agencies for	
	mentorship regarding IPR, innovation development and	
16	enterprise development	
	Several faculty members/ staff of the HEI deputed on	
	committees of other HEIs to mentor and support the	
17	establishment of their I & E ecosystem.	
	Number of Innovations TRL 0-3 and Number of non-	
	technical Innovations (scouted and evaluated) registered	
	with the departments of HEI/preincubation/Incubation	
18	Centre	
19	Number of Innovations TRL 4-6	
20	Number of Innovations TRL 7-9	

S.	Assessment questions	Remarks
No.	Addessment questions	Romano
	Number of ideas or innovative projects implemented in the	
21	community/Social Innovations	
	Number of ideas or innovative projects/TRLs/Social	
22	Innovations implemented with financial support from HEIs	
	Number of awards won by the student and faculty	
	innovations at State/National/International Level in I & E	
23	related events	
	Number of Startups with CIN / Entrepreneurial Ventures with	
	at least GST number started by students/ faculties/ Staff/	
	Alumni and facilitated by HEI/EDC/ Pre-incubation/	
24	Incubation/ Research Park etc.	
	Number of Startups with CIN /Entrepreneurial Ventures with	
	GST number started by the external beneficiaries (i.e.	
	excluding students, Faculty & Staff) who had received the	
	Employment Generating Skill Training Program conducted	
25	by the HEI/EDC/Pre-incubation/ Incubation	
26	Number of Faculty as Founder or Co-Founder with DIN	
	Number of Startups with Annual Turnover of Rs. 50 Lakhs	
27	or ten employees	
	Total amount raised by innovators pre-Incubated/incubated	
28	at HEI from Angel/VC Fund/High Net-worth Individual (HNI)	
	Total amount raised by Start-ups incubated at HEI from	
29	Angel /VC Fund /High Net-worth Individual (HNI)	
	The total amount of Credit/Loans from Financial Institutions	
30	that HEI facilitated for innovators/startups.	
	Number of Collaborations with incubation units outside the	
31	HEI either to provide OR receive Incubation Support	
	Number of Collaborations with other HEIs as mentor/	
32	mentee Institute to promote I&E on the Campus	
	Number of Collaborations with startups/Industry	
	Associations /Knowledge Agencies to promote I & E	
33	activities and internship opportunities.	
34	Amount spent on events conducted	

S.	Assessment questions	Remarks
No.		
	Amount spent on student/faculty participation in I&E events	
35	conducted by external organisations	
	Expenses incurred in the establishment, maintenance and	
	operation of Pre-Incubation or Incubation infrastructure	
36	(capital expenditure + operational expenditure	
	Total seed fund/grant disbursed by HEI from its funds to	
37	innovation/ entrepreneurial ventures	
	Total Seed Fund/Grant received from external sources	
38	disbursed to Startups	
	Total grant/funds received from authentic sources such as	
	Govt, Non-Govt, CSR bodies etc. towards promoting and	
	supporting Innovation, IPR, Start-ups and	
39	preincubation/incubation activities on the Campus	
	Total revenue from Incubation Services offered by HEI to	
	Startups/innovators (training and skill + mentoring + office	
	space and rent). It excludes fees earned for providing	
	general consulting services offered and training conducted	
40	by HEIs	
	Total revenue generated from commercialisation/Licensing	
	of IPs owned by HEIs (It excludes IP commercialisation	
41	made by incubated Startups/ Innovators).	
	Number of research papers published (Student/Faculty) with	
	Keywords -Innovation and Entrepreneurship in Scopus	
42	journals	
43	Number of Copyrights/Designs- Applied	
44	Number of Copyrights/Designs Granted	
45	Number of Patents Filed & Published	
46	Number of Patents Granted	
	Number of Patents held by Pre-Incubated	
47	Innovations/Incubated Startups	
48	Number of IPs Commercialized/ Technology Transferred	
49	Adopted National Innovation and Start-up Policy at the HEI	
50	Establishment of Institution's Innovation Council (IIC) at HEI	

S.	Assessment questions	Remarks
No.	Assessment questions	Remarks
51	Trained Innovation Ambassadors at HEI	
52	Participation in Smart India Hackathon (SIH)	
	Facilitated Registration of startups/ Technologies	
	developed from HEIs in YUKTI 2.0 (Young India combating	
	COVID with Knowledge, Technology and Innovation) portal	
53	of MIC.	
	Participation of Students from the HEI in National Education Alliance of Technology (NEAT) courses	
54		

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# Annexure-2: List of planned activities w.r.t KRA's

SI.			Number of
No	Title of Activities	Domain/KRA	activities/Targets
			in a year
1	One to one meeting after admission about Innovation and Startup, I&E Tour, and Ready reckoner kit		1
2	Workshop on "Entrepreneurship and Innovation as Career Opportunity"		2
3	Innovation quotient assessment for students (UG/PG/Lateral entry) at the time of Joining the programme		1
4	Motivational Session by Successful Entrepreneur/Startup founder from various sectors (Agri, EduTech, Health etc.)	Inspiration,	2
5	Conducting full-fledged programmes / courses in Innovation / Entrepreneurship / Intellectual Property offered by the HEI (Diploma/ UG/ PG/ PhD)	Motivation, and Ideation	2
6	Conducting Minor Specialisations/ Core Credit courses offered by the HEI in Innovation and Entrepreneurship (I & E) of a minimum of 30 contact hours of duration		2
7	Conducting I & E related MDP, EDP, FDP, Employment Generation Skill Development Programs for 30 contact hours		1

SI.			Number of
No	Title of Activities	Domain/KRA	activities/Targets
-			in a year
	Organising entrepreneurial skill		
8	development/employment generating		1
	training programmes conducted by the		'
	HEI for external participants		
9	Session on Problem Solving and		4
	Ideation Workshop		7
10	Exposure and field visit for problem		2
10	identification		2
	She(he) was pitching a workshop &	Inspiration,	
11	linkage of innovators with Innovation	Motivation,	2
	Ambassadors.	and Ideation	
	Panel Discussion on Atmanirbhar	and idealion	
12	Bharat- Vocal for Local, Make in India		1
	for the world		
	Orientation Session on National		
13	Education Policy (with a focus on		1
	innovation and entrepreneurship)		
14	Session on Process of Innovation		2
	Development		_
15	Workshop on Design Thinking, Critical		2- 4
	thinking, and Innovation Design		
	Field/Exposure Visit to Fab lab, Makers		
16	Space, Design Centres, City clusters	Validation and	2
	etc.	Concept	
17	Workshop on Entrepreneurship	Development	1/ phase
	Development Phases		iii piidoo
	Design Validation through various		
18	models of design validation (e.g.		1
	Double Diamond Approach)		
	Session on identifying Intellectual		
19	Property components at the early stage		2-4
	of innovation		

No Title of Activities in a year    Idea/ PoC pitching & validation and Institute level PoC competition.   1-2	SI.			Number of
Idea/ PoC pitching & validation and Institute level PoC competition.	No	Title of Activities	Domain/KRA	activities/Targets
Institute level PoC competition.				in a year
Institute level PoC competition. Orientation Session on National Innovation and Startup Policy  Semester Break: Internship at Startup  Field/Exposure Visit to Incubation Unit/Patent Facilitation Centre / Technology Transfer Centre/Co- working spaces  Workshop on Prototype/Process Design and Development - Prototyping  Session/ Workshop on Business Model Canvas (BMC)  Business Plan/Prototype Competition to Invite Innovative Business Models from Students  Session on "How to plan for Start-up and legal & Ethical Steps."  Interactive Session/Mentoring Session with "Successful Startup founders" (Entrepreneurs in Campus)  Workshop on Intellectual Property Rights (IPRs) and IP management for a startup  Orientation session for all students & faculties of Institute by Innovation Ambassadors.  Number of Innovations TRL 0-3 and Number of non-technical Innovations (scouted and evaluated) registered with the departments of HEI/preincubation/Incubation Centre 32 Number of Innovations TRL 4-6  10	20	Idea/ PoC pitching & validation and		1-2
21	20	Institute level PoC competition.		
Innovation and Startup Policy  22 Semester Break: Internship at Startup  Field/Exposure Visit to Incubation Unit/Patent Facilitation Centre / Technology Transfer Centre/ Co- working spaces  Workshop on Prototype/Process Design and Development - Prototyping  Session/ Workshop on Business Model Canvas (BMC)  Business Plan/Prototype Competition to Invite Innovative Business Models from Students  Session on "How to plan for Start-up and legal & Ethical Steps."  Interactive Session/Mentoring Session with "Successful Startup founders" (Entrepreneurs in Campus)  Workshop on Intellectual Property Rights (IPRs) and IP management for a startup  Orientation session for all students & faculties of Institute by Innovation Ambassadors.  Number of Innovations TRL 0-3 and Number of Innovations TRL 0-3 and Hell/preincubation/Incubation Centre  Number of Innovations TRL 4-6  Number of Innovations TRL 4-6	21	Orientation Session on National		1
22   Semester Break: Internship at Startup	21	Innovation and Startup Policy		I
Unit/Patent Facilitation Centre / Technology Transfer Centre/ Co- working spaces  Workshop on Prototype/Process Design and Development - Prototyping  Session/ Workshop on Business Model Canvas (BMC)  Business Plan/Prototype Competition to Invite Innovative Business Models from Students  Session on "How to plan for Start-up and legal & Ethical Steps."  Interactive Session/Mentoring Session with "Successful Startup founders" (Entrepreneurs in Campus)  Workshop on Intellectual Property Rights (IPRs) and IP management for a startup  Orientation session for all students & faculties of Institute by Innovation Ambassadors.  Number of Innovations TRL 0-3 and Number of non-technical Innovations (scouted and evaluated) registered with the departments of HEl/preincubation/Incubation Centre 32 Number of Innovations TRL 4-6	22	Semester Break: Internship at Startup		1
Technology Transfer Centre/ Co- working spaces  Workshop on Prototype/Process Design and Development - Prototyping  Session/ Workshop on Business Model Canvas (BMC)  Business Plan/Prototype Competition to Invite Innovative Business Models from Students  Session on "How to plan for Start-up and legal & Ethical Steps."  Interactive Session/Mentoring Session with "Successful Startup founders" (Entrepreneurs in Campus)  Workshop on Intellectual Property Rights (IPRs) and IP management for a startup  Orientation session for all students & faculties of Institute by Innovation Ambassadors.  Number of Innovations TRL 0-3 and Number of non-technical Innovations (scouted and evaluated) registered with the departments of HEI/preincubation/Incubation Centre Number of Innovations TRL 4-6  1  Prototype, Development for Business Prototype, Development for Business Model/ Process/ Services  2  2  20  4  20  1  20  1  20  1  20  1  20  1  20  1  20  20		Field/Exposure Visit to Incubation		
Technology Transfer Centre/ Co- working spaces  Workshop on Prototype/Process Design and Development - Prototyping Session/ Workshop on Business Model Canvas (BMC)  Business Plan/Prototype Competition to Invite Innovative Business Models from Students  Session on "How to plan for Start-up and legal & Ethical Steps."  Interactive Session/Mentoring Session with "Successful Startup founders" (Entrepreneurs in Campus)  Workshop on Intellectual Property Rights (IPRs) and IP management for a startup  Orientation session for all students & faculties of Institute by Innovation Ambassadors.  Number of Innovations TRL 0-3 and Number of non-technical Innovations (scouted and evaluated) registered with the departments of HEI/preincubation/Incubation Centre  Number of Innovations TRL 4-6  1 Prototype, Design, Process/ Services  1 Services Prototype, Design, Process/ Services  2 Model/ Process/ Services  2 2  20  1 2  20  1 2  20  1 2  20  20  20  20  20  20  20  20  20	00	Unit/Patent Facilitation Centre /		4
Workshop on Prototype/Process   Design and Development - Prototyping	23	Technology Transfer Centre/ Co-		1
Design and Development - Prototyping  Session/ Workshop on Business Model Canvas (BMC)  Business Plan/Prototype Competition to Invite Innovative Business Models from Students  Session on "How to plan for Start-up and legal & Ethical Steps."  Interactive Session/Mentoring Session with "Successful Startup founders" (Entrepreneurs in Campus)  Workshop on Intellectual Property Rights (IPRs) and IP management for a startup  Orientation session for all students & faculties of Institute by Innovation Ambassadors.  Number of Innovations TRL 0-3 and Number of non-technical Innovations (scouted and evaluated) registered with the departments of HEI/preincubation/Incubation Centre  32 Number of Innovations TRL 4-6  Interactive Session/Mentoring Session Process/ Services  Development for Business 2 Model/ Process/ Services  2  20  20  20  1  20  20  20  20  20		working spaces		
Design and Development - Prototyping  Session/ Workshop on Business Model Canvas (BMC)  Business Plan/Prototype Competition to Invite Innovative Business Models from Students  Session on "How to plan for Start-up and legal & Ethical Steps."  Interactive Session/Mentoring Session with "Successful Startup founders" (Entrepreneurs in Campus)  Workshop on Intellectual Property Rights (IPRs) and IP management for a startup  Orientation session for all students & faculties of Institute by Innovation Ambassadors.  Number of Innovations TRL 0-3 and Number of non-technical Innovations (scouted and evaluated) registered with the departments of HEI/preincubation/Incubation Centre  Number of Innovations TRL 4-6  10  Design, Process  Development for Business 2  Model/ Process/ Services 2  Ambassadors.  20  10	24	Workshop on Prototype/Process		4
Design, Process   Development for Business Model   Design, Process   Development for Business Model   Design, Process   Development for Business Model   Design, Process   Development for Business   Development   Design, Process   Design, Process   Design, Process   Design, Process   Design, Process   Development for Business   Development fo	24	Design and Development - Prototyping	Prototype.	l l
Canvas (BMC)  Business Plan/Prototype Competition to Invite Innovative Business Models from Students  Session on "How to plan for Start-up and legal & Ethical Steps."  Interactive Session/Mentoring Session  With "Successful Startup founders" (Entrepreneurs in Campus)  Workshop on Intellectual Property Process Workshop and IP management for a startup  Orientation session for all students & Model/ Process  Prototype, Design, Process Development for Business Model/ Process/ Services  2  Number of Innovations TRL 0-3 and Number of non-technical Innovations (scouted and evaluated) registered with the departments of HEI/preincubation/Incubation Centre  32 Number of Innovations TRL 4-6	25	Session/ Workshop on Business Model		1
Invite Innovative Business Models from Students	25	Canvas (BMC)		l l
Invite Innovative Business Models from Students   Students   Model/		Business Plan/Prototype Competition to	Development	
Session on "How to plan for Start-up and legal & Ethical Steps."  Interactive Session/Mentoring Session with "Successful Startup founders" (Entrepreneurs in Campus)  Workshop on Intellectual Property Rights (IPRs) and IP management for a startup  Orientation session for all students & Model/  Orientation session for all students & Services  Number of Innovations TRL 0-3 and Number of non-technical Innovations (scouted and evaluated) registered with the departments of HEI/preincubation/Incubation Centre  Number of Innovations TRL 4-6  Number of Innovations TRL 4-6	26	Invite Innovative Business Models from	•	1
and legal & Ethical Steps."  Interactive Session/Mentoring Session with "Successful Startup founders" (Entrepreneurs in Campus)  Workshop on Intellectual Property Rights (IPRs) and IP management for a startup  Orientation session for all students & Model/  Orientation session for all students & Services  Number of Innovations TRL 0-3 and Number of non-technical Innovations (scouted and evaluated) registered with the departments of HEI/preincubation/Incubation Centre  Number of Innovations TRL 4-6  10		Students	Model/	
and legal & Ethical Steps."  Interactive Session/Mentoring Session  with "Successful Startup founders" (Entrepreneurs in Campus)  Workshop on Intellectual Property Process  Workshop and IP management for a startup  Orientation session for all students & Model/  Orientation session for all students & Services  30 faculties of Institute by Innovation Ambassadors.  Number of Innovations TRL 0-3 and Number of non-technical Innovations (scouted and evaluated) registered with the departments of HEI/preincubation/Incubation Centre  32 Number of Innovations TRL 4-6	27	Session on "How to plan for Start-up	Process/	1
with "Successful Startup founders" (Entrepreneurs in Campus)  Workshop on Intellectual Property Process  Rights (IPRs) and IP management for a startup  Orientation session for all students & Model/  Orientation session for all students & Services  Number of Innovations TRL 0-3 and Number of non-technical Innovations (scouted and evaluated) registered with the departments of HEI/preincubation/Incubation Centre  Number of Innovations TRL 4-6	21	and legal & Ethical Steps."	Services	ľ
(Entrepreneurs in Campus)  Workshop on Intellectual Property  Process  Development  for Business  Model/  Process/  Orientation session for all students &  faculties of Institute by Innovation  Ambassadors.  Number of Innovations TRL 0-3 and Number of non-technical Innovations (scouted and evaluated) registered with the departments of HEI/preincubation/Incubation Centre  Number of Innovations TRL 4-6  Number of Innovations TRL 4-6		Interactive Session/Mentoring Session	Prototype,	
Workshop on Intellectual Property 29 Rights (IPRs) and IP management for a startup  Orientation session for all students & Model/ Process/ 30 faculties of Institute by Innovation Ambassadors.  Number of Innovations TRL 0-3 and Number of non-technical Innovations (scouted and evaluated) registered with the departments of HEI/preincubation/Incubation Centre  32 Number of Innovations TRL 4-6	28	with "Successful Startup founders"	Design,	2
29 Rights (IPRs) and IP management for a startup  Orientation session for all students & Model/  Orientation session for all students & Process/  30 faculties of Institute by Innovation Ambassadors.  Number of Innovations TRL 0-3 and Number of non-technical Innovations (scouted and evaluated) registered with the departments of HEI/preincubation/Incubation Centre  32 Number of Innovations TRL 4-6		(Entrepreneurs in Campus)	Process	
startup  Orientation session for all students & Process/ 30 faculties of Institute by Innovation Ambassadors.  Number of Innovations TRL 0-3 and Number of non-technical Innovations (scouted and evaluated) registered with the departments of HEI/preincubation/Incubation Centre  32 Number of Innovations TRL 4-6  10 Model/ Process/ Services  2  20		Workshop on Intellectual Property	Development	
Orientation session for all students & Process/ 30 faculties of Institute by Innovation Ambassadors.  Number of Innovations TRL 0-3 and Number of non-technical Innovations (scouted and evaluated) registered with the departments of HEI/preincubation/Incubation Centre  32 Number of Innovations TRL 4-6	29	Rights (IPRs) and IP management for a	for Business	2
30 faculties of Institute by Innovation Ambassadors.  Services  2  Number of Innovations TRL 0-3 and Number of non-technical Innovations (scouted and evaluated) registered with the departments of HEI/preincubation/Incubation Centre  32 Number of Innovations TRL 4-6  10		startup	Model/	
Ambassadors.  Number of Innovations TRL 0-3 and Number of non-technical Innovations (scouted and evaluated) registered with the departments of HEI/preincubation/Incubation Centre  32 Number of Innovations TRL 4-6		Orientation session for all students &	Process/	
Number of Innovations TRL 0-3 and Number of non-technical Innovations (scouted and evaluated) registered with the departments of HEI/preincubation/Incubation Centre  32 Number of Innovations TRL 4-6  10	30	faculties of Institute by Innovation	Services	2
Number of non-technical Innovations (scouted and evaluated) registered with the departments of HEI/preincubation/Incubation Centre  32 Number of Innovations TRL 4-6		Ambassadors.		
32 Number of Innovations TRL 4-6 10	31	Number of non-technical Innovations (scouted and evaluated) registered with the departments of		20
33 Number of Innovations TRL 7-9 2	32			10
	33	Number of Innovations TRL 7-9		2

SI.			Number of
No	Title of Activities	Domain/KRA	activities/Targets
			in a year
	Number of ideas or innovative projects		
34	implemented in the community/Social		2
	Innovations		
	Number of ideas or innovative		
35	projects/TRLs/Social Innovations		2
	implemented with financial support from		_
	HEIs		
	Number of awards won by the student		
36	and faculty innovations at		3-4
	State/National/International Level in I &		0 4
	E related events		
	Number of Startups with CIN /		
	Entrepreneurial Ventures with at least		
37	GST number started by students/		1
	faculties/ Staff/ Alumni and facilitated by		•
	HEI/EDC/ Pre-incubation/ Incubation/		
	Research Park etc.		
	Number of Startups with CIN		
	/Entrepreneurial Ventures with GST		
	number started by the external		
38	beneficiaries (i.e. excluding students,		1
	Faculty & Staff) who had received		·
	Employment Generating Skill Training		
	Program conducted by the		
	HEI/EDC/Pre-incubation/ Incubation.		
	Number of Faculty as Founder or Co-		1
39	Founder with DIN	Start-up and	'
	Number of Collaborations with	related	
40	incubation units outside the HEI either	ecosystem	1
40	to provide OR receive Incubation		I
	Support		

SI.			Number of
No	Title of Activities	Domain/KRA	activities/Targets
			in a year
	Number of Collaborations with other		
41	HEIs as mentor/ mentee Institute to		1
	promote I&E on the Campus		
	Number of Collaborations with		
42	startups/Industry Associations		1
42	/Knowledge Agencies to promote I & E		'
	activities and internship opportunities.		
	Number of research papers published		
43	(Student/Faculty) with Keywords -		4
40	Innovation and Entrepreneurship in		7
	Scopus journals		
44	Number of Copyrights/Designs- Applied		5
45	Number of Copyrights/Designs Granted		2
46	Number of Patents Filed & Published		20
47	Number of Patents Granted		2
	Number of Patents held by Pre-		
48	Incubated Innovations/Incubated		1
	Startups		
49	Number of IPs Commercialized/		1
	Technology Transferred		'
50	Adopted National Innovation and Start-		Yes
	up Policy at the HEI	Start-up and	100
51	Establishment of Institution's Innovation	related	Yes
	Council (IIC) at HEI	ecosystem	1.00
52	Trained Innovation Ambassadors at		yes
02	HEI		yee
53	Participation in Smart India Hackathon		Yes
	(SIH)		. 55
54	Facilitated Registration of startups/		Yes
	Technologies developed from HEIs.		. 33
	Participation of Students from the HEI		
55	in National Education Alliance of		Yes
	Technology (NEAT) courses		

SI.			Number of
No	Title of Activities	Domain/KRA	activities/Targets
-			in a year
	Number of active Ideas/ Innovation		
	centric Student Clubs in the HEI with		
56	access to co-working space/ work-		2
	stations for students with facilities &		
	equipment available for I & E activities		
	Existence of Preincubation centres		
57	such as Tinker Lab/ EDC/ IEDC/ New		Yes
37	Gen IEDC/ etc. with a minimum Space		165
	of >= 600 sq. ft. floor area	Financial and	
	Existence of Incubation Unit with	Infrastructure	
58	minimum Space of >= 1500 sq. ft. floor	for Start-up	Yes
	area	ecosystem	
	Existence of Research Park/Innovation		
59	Park with minimum Space of >= 5000		No
	sq. ft. Floor area.		
	Existence of Centre of Excellence with		
60	Advance Tools & Equipment with		Yes
	minimum Space of >= 1000 sq. ft.		
	Existence of IPR Cell / Patent		
61	Facilitation Unit / Technology Transfer		yes
	Centre at the Institute		
	Number of dedicated Staff to oversee I		
62	& E activities under the leadership of a		1
	senior professor/Head of the Institute		
	Number of empaneled external experts/		
63	agencies for mentorship regarding IPR,		2
	innovation development and enterprise		_
	development		
	Several faculty members/ staff of the		
64	HEI deputed on committees of other		2
	HEIs to mentor and support the		_
	establishment of their I & E ecosystem.		

SI.			Number of
No	Title of Activities	Domain/KRA	activities/Targets
			in a year
65	Number of Startups with Annual		No
	Turnover of Rs. 50 Lakhs or ten	Financial and	
	employees	Infrastructure	
66	Total amount raised by innovators pre-	for Start-up ecosystem	5 Lakh
	Incubated/incubated at HEI from		
	Angel/VC Fund/High Net-worth		
	Individual (HNI)		
67	Total amount raised by Startups		5 Lakh
	incubated at HEI from Angel /VC Fund		
	/High Net-worth Individual (HNI)		
68	The total amount of Credit/Loans from		5 lakhs
	Financial Institutions that HEI facilitated		
	for innovators/startups.		
69	Amount spent on events conducted		20 Lakhs
	Amount spent on student/faculty		2 Lakhs
70	participation in I&E events conducted		
	by external organisations		
	Expenses incurred in the		20 Lakh
	establishment, maintenance and		
71	operation of Pre-Incubation and		
	Incubation infrastructure (capital		
	expenditure + operational expenditure		
72	Total seed fund/grant disbursed by HEI	Financial and	
	from its funds to innovation /	Infrastructure	10 Lakhs
	entrepreneurial ventures	for Start-up	
70	Total Seed Fund/Grant received from	ecosystem	5 lakhs
73	external sources disbursed to Startups		
74	Total grant/funds received from		10 Lakhs
	authentic sources such as Govt, Non-		
	Govt, CSR bodies etc. towards		
	promoting and supporting Innovation,		

SI. No	Title of Activities	Domain/KRA	Number of activities/Targets
			in a year
	IPR, Start-ups and preincubation /		
	incubation activities on the Campus		
75	Total revenue from Incubation Services		
	offered by HEI to Startups/innovators		
	(training and skill + mentoring + office		
	space and rent).It excludes fees earned		10 Lakh
	for providing general consulting		
	services offered and training conducted		
	by HEIs		
76	Total revenue generated from		
	commercialisation / Licensing of IPs		
	owned by HEIs (It excludes IP		2 Lakh
	commercialization made by incubated		
	Startups/ Innovators).		