





Institutional Innovation and Entrepreneurship Policy (HEI Innovation & Start-up Document)

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Abstract

The National Innovation and Start-up Policy (NISP) will enable the higher education institutions to develop active engagement with students, faculties and staff members in strengthening culture of creativity, innovation and entrepreneurship developmental activities across all spheres of HEI. This integrated framework will facilitate in bringing uniformity across HEIs in terms of addressing issues related to Intellectual Property ownership and management, technology licensing and institutional entrepreneurial / start-up policy, thus helping in achieving end goal of a robust innovation and Start-up ecosystem in Higher Education Institutions where ideas can be turned in commercially viable products and services.

> Dr. Owais Charag Coordinator Institutional Innovation Programme





Message from Principal on Institutional Innovation and Entrepreneurship Policy



Principal Prof. (Dr.) Farooq Ahmad Malik

It gives me immense pleasure to showcase our institutional commitment towards creating sustainable start-up ecosystem for developing entrepreneurship among students with an objective to facilitate creativity and innovation, critical thinking, of mental intellect. skill growth development and versatile platform for transformation of ideas into commercially viable business enterprises. Our college to values of achieving will adhere sustainable community development by creation of better livelihood opportunities for our youth and strengthening education with tinge of training and mentorship.

I appreciate the insight and dedication of Dr. Owais Charag who has put his best effort for developing this policy document for the College. My best wishes are with the Institutional Innovation Team for implementation of NISP scheme in the College and deriving benefits of innovation and technology development for building better.

> Prof. Farooq Ahmad Malik Chairman Institutional Innovation Programme





(Innovation and Entrepreneurship Policy)

Preamble:

J&K has tremendous potential for generating employment in the sectors of Information Technology, Electronic & Communication Technologies, Energy Development, Agro Based Industries & Horticulture. The required intervention in training and mentoring can become pivotal in helping un-employed youth to achieve sustainable livelihood. The policy platform in the form of institution innovation and entrepreneurship can provide mentorship, guidance and direction to budding entrepreneurs who under the supervision of Resource Persons will be guided to develop and test their prototypes and commercialize their ideas. The centre can become hub for the development and application of indigenous technology in a dynamic economic environment.

Vision:

To be an institution of excellence in rendering services for sustainable community development through innovation, incubation and technological advancement.

Mission:

To become a knowledge hub for supporting start-up ventures, entrepreneurial businesses and budding businesses enterprises in generating local self-livelihood through required technological interventions.

Objectives:

- 1. To encourage, inspire and nurture young students by supporting them to work with new ideas and transform them into prototypes and products of value.
- 2. To mentor the incubates who has an innovative idea which can be transformed into commercially viable product in order to develop entrepreneurship.
- 3. To provide guidance to newly established start-up's and budding entrepreneurs to develop their capacities in screening ideas.





- 4. To provide financial support to incubates in the form of seed capital and developing linkages with Institutions running Centrally Sponsored Schemes for further augmentation and development of proprietary technology.
- 5. To work as entrepreneurship development centre within the College Campus.
- 6. To provide expert consultation to budding entrepreneurs and start-ups.

Identified Activities:

- 1. Identification, development and commercialization of new product / process / application through latest technology.
- 2. Significant improvement in existing product / process / application.
- 3. Substantial quality upgradation, reduced material consumption, reduced energy consumption, cost reduction, improved competitiveness, improved ergonomics.
- 4. Development and deployment of technology or design to satisfy existing occupational health and or safety standards or improve upon them.
- 5. Development and deployment of technology or design necessary to satisfy domestic or foreign environmental requirements or standards current or anticipated.
- 6. Development and deployment of technology or design necessary to satisfy the requirements of domestic legislation and or decisions of the judiciary or product liability legislations in expert markets.
- 7. Adaption / modification to product / process which has been imported so as to make it suitable for wider domestic application.
- 8. Replacement of imported raw materials / components with indigenous substitutes.
- 9. Providing the socio-commercial viability or new and / or renewable sources of energy commercially deliverable to consumers.
- 10. Development of technology to meet the medical standards and providing socio-commercial viability of bio-medical equipments and devices.





Stakeholders:

- 1. The students who are enrolled as well passed outs and have innovative and creative ideas will be provided mentorship for transforming their ideas into products and services with commercial value by connecting them with the peers in the line.
- 2. The students who have left the degree programme in the middle and are dropouts and come up with innovative ideas will be enrolled as incubates and provided guidance on product development, product testing, product design development, prototype development and commercialization for improving their chances of achieving secure livelihood.
- 3. Newly established start-up enterprises and budding entrepreneurs who desire to undertake entrepreneurship as career will be provided guidance in the form of mentoring by subject specialists / resource persons / experts.

Resources Available:

- 1. Building with a Floor Area of More Than 5000 Sq.Ft for imparting Training to 100 incubates.
- 2. IT Infrastructure in the Form of the Smart Panels, Interactive White Boards, All in One Desktop Computers, Printers, Video Conferencing Equipments.
- 3. Modular Furniture for providing training to 100 incubates to be enrolled for entrepreneurship development programme / product development programme.
- 4. Developing Memorandum of Understanding (MOUS's) with Entrepreneurial Development Institutions and Empanelment of Key Subject Experts / Resource Persons.
- 5. Teaching Material in the form of lectures, notes, books and Lectures from Subject Experts / Resource Persons.

Core Focus Areas:

1. Identifying sustainable technological intervention by way of value addition, processing, development of backward and forward linkage for selective agro-products for livelihood generation.





2. Sustainable technological intervention based on Information Communication technology (ICT) in business, manufacturing, services deliver and information processing.

Governance:

1.	Principal	Chairman		
2.	Two Subject Industry Experts	Members		
3.	Representative(s) from University of Kashmir	Member		
	(Affiliating University)	Member		
4.	Four academicians in the relevant fields			
	(Nominated by the Principal)	Member		
5.	One Nominee of the State Higher Education Deptt.	Member		
6.	Representative(s) of Industry relevant to the Specializations	Member		
	(To be Nominated by FICCI / CII)			
7.	7. Representative(s) of Industries Deptt, Employment Deptt,			
	JKEDI & Other Line Deptt.	Member		
8.	Coordinator NISP	Member		
Policy	y Drafting and Implementation Team:			
	1. Principal	Chairman		
	2. Dr. Owais Charag	Coordinator		
	3. Prof. Peerzada Sajad Ahmad	Member		
	4. Dr. Zahoor Ahmad Makhdoomi	Member		
	5. Dr. Peerzada Arshid Ahmad	Member		
	6. Dr. Aijaz Ahmad	Member		





1. Strategies and Governance

- a. Entrepreneurship Development as a core activity shall be given focus and all the sub-activities shall be identified in relation with the generating sustainable livelihood opportunities in the region and shall be part of Institutional Innovation Policy.
- b. The areas of activities for each programme and scheme shall be developed in consultation with the subject experts and resource persons to facilitate development of an entrepreneurial ecosystem in the Institution, specific objectives and associated performance indicators should be defined for assessment.
- c. Organisational level resource mobilization and resource utilization plan shall be developed for supporting activities related to pre-incubation and post -incubation period.
- d. In every financial year expenditure upto the tune of 5% of the total institutional allocations shall be incurred on development start-up supportive ecosystem and strengthening of institutional innovation resources.
- e. Various organisation like EDI Ahmedabad, Department of Science & Technology, Deptt. of Biotechnology, Deptt. of MSME and other organizations like JKEDI, Industries Deptt. shall be roped in for generating awareness about various start-up schemes implemented by these respective organisations along with acquiring funds from these and other organisations for supporting training and skill development, incubation, product testing and other related activities for the enrolled budding incubates.
- f. The strategies related to following core start-up activities shall be developed and implemented by the SPV
 - a. Start-up Incubation & Training
 - b. Design Testing, Product Testing & Technology Testing
 - c. Market Identification & Evaluation
 - d. Commercialization Strategy
 - e. Securing IPR (Patent / Copyright) from agencies
 - f. Post Start-up Support & Consultative





- g. Institutional Mechanism for Internship / Training / Support shall be developed in consultation with private business players.
- h. The Governance for implementation of Institutional Innovation Scheme shall be mandate of Institutional Innovation Council, which shall be "Apex" body at the institutional level and shall comprise of members from Institution, Technical Institutions, Subject Experts, Officials from line departments & Business Organisations. The inputs of the apex council shall be inputs for following Governance Committees:
 - a. Institutional Mentoring Committee
 - i. Members: Faculty / Trainers / Business Players
 - b. Start-up Product / Service Development Committee
 - i. Members: Faculty / Subject Experts / Government / Regulatory Agencies/ Business Players / National Scientific Institutional (IIT, NIT, CSIR etc)
 - c. Intellectual Property Rights Committee
 - i. Members: Faculty / Subject Experts / Government / Regulatory Agencies.

2. Start-up Enabling Institutional Infrastructure

The activities related to pre and post incubation shall be given extra focus vis-à-vis with development of supportive infrastructure for the training of the students. Infrastructure at the institution shall be developed to meet out following requirements:

- a. Training, Research & Pre-Incubation Support
- b. Product Testing, Design Testing, Modification & Upgradation
- c. Pre Commercialization Market Response
- d. Post Incubation Support.

In order to undertake the above-mentioned activities, support from DST shall be acquired for establishment of Incubation Centre in the College along with centre of excellence for innovation and testing. The MSME shall be approached for establishment of product design lab in the institution for developing prototypes of the actual product.





3. Nurturing Innovations and Start-ups

The institution shall undertake following activities for nurturing innovation among student community and facilitating start up supportive activities:

- a. The conduct of brainstorming sessions shall be the regular activities to be undertaken at departmental level. The sessions shall be chaired by departmental innovation committee.
- b. Those students who have innovative idea and require skill polishing in terms of prototype building, testing and commercialization shall be supported by the departmental innovation committee along with technical consolations from subject experts.
- c. The focus of idea generation shall be given priority among student and faculty, wherein the later shall guide the former in successful implementation of the shortlisted ideas.
- d. The institutional innovation council shall adhere to various policy decisions from department of science and technology regarding development and commercialization of technologies.

4. Product Ownership Rights for Technologies Developed at Institute

- a. The production ownership rights for the technologies developed in the institution shall be decided by the Institutional Innovation Council. Whereas the focus shall be sharing maximum royalties with the inventor. The copyright and patent rights shall be availed for First Inventor (i.e., Student) and Second Inventor (HEI). Wherein the institutional funds and resources are being used the IPR is to be jointly owned by inventors and the Institute.
- b. The inventors and the institute bot should avail license the product/ IPR to any commercial organization, with inventors having the primary say. License fees could be either/or a mix of upfront fees or one-time technology transfer fees, royalty as a percentage of saleprice, shares in the company licensing the product.
- c. If in case one or more of the inventors wish to incubate a company and license the product to any company, the royalties would be 5% of





sale price for hardware product and 3% for pure software product. The shares will again be 4%.

- d. In case the invention has been created outside the HEI by the student with employing institutional resources the patent rights, royalty etc. shall be entirely of the inventor.
- e. The Intellectual Property Right Committee shall provide guidance to the inventor for preparation of IPR documents, filling of grant of IPR case to regulating agencies and availing IPR from the regulatory government authorities.

5. Organizational Capacity, Human Resources and Incentives

- a. The Institution shall organise regular faculty development programmes related to enhancing capacity of faculty, students and supporting staff for development institutional innovation ecosystem for facilitating development of start-up enterprises. The training programmes shall focus on upscaling skill related to critical thinking, problem solving and identifying solutions to problems which can both be economical and have scope of returns.
- b. The departmental teams shall develop cross linkages with the industry partners for training development of the faculty, students and other stakeholders.
- c. The faculty and staff shall participate in various training development programmes to upgrade skill and knowledge related to innovation, IPR and technology commercialization.
- d. The institution shall provide support and arrange various faculty development programmes for the teaching staff so that change in thinking and thought process is brought among the institution related to development of culture of innovation, knowledge sharing, technical thought process.
- e. Incentives shall be provided to faculty members for undergoing training programmes and to which all the costs shall be born by the HEI.





f. The HEI shall organise resource for the purchase of equipments, development of training space, development of infrastructure in the form of labs and testing lab for prototype testing.

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

- a. Awareness programmes shall be conducted at institution level with participation of students, faculty members, subject experts and resource persons from various institutions who are implementing start-up schemes.
- b. The Institution shall develop mechanism for pre incubation support and post incubation monitoring of the potential students who register for incubation training programme.
- c. The process of ideation shall be given priority at institution level and competition /hackathons shall be organised for the purpose of initiating brainstorming exercises among the students and faculty members to identify areas where business opportunities lie.
- d. Initiatives such as idea generation and innovation exercises, competitions, hackathons, workshops, boot camps, seminars, conferences, exhibitions, mentoring shall be regular exercise at the HEI.
- e. Potential innovators shall be linked with financial institutions / venture capitalists and funding agencies for funding their start-up ideas.
- f. Innovation toolkit shall also be developed and places on the website along with roadmap for innovation and start-up at institutional level.

7. Norms for Faculty Start-ups

- a. All the faculty members shall be encouraged to involve themselves in startup activities and shall opt role of promoter, mentor, resource person and consultant for the startup business entrepreneurs.
- b. The faculty members shall also be encouraged to register their own startup in case they have some potential idea that have lucrative business returns.





- c. The faculty members shall also involve alumni for developing facilitating start-up enterprises and encouraging alumni / pass-outs who have attained career growth to share their success stories with the students and provide able guidance as and when needed.
- d. The institution shall develop core committee regarding innovation and start-up development and members shall meet twice a month to discuss future pathway for the start-up business enterprises.
- e. MOU's shall be undertaken with the line institutions / departments and visits from the experts and resource persons shall be arranged to create awareness among students about various start-up schemes implemented by State / Central Government.

8. Pedagogy and Learning Interventions for Entrepreneurship Development

- a. The HEI shall adopt diversified approach to produce desirable learning outcomes, which should include cross disciplinary learning using mentors, labs, case studies, games, etc. in place of traditional lecture-based delivery. The modern tools like ICT lab shall be used for teaching using modern pedagogical methods to inculcate better understanding among the interns and mentees.
- b. The successful entrepreneurs shall be invited to deliver lectures on diversified topics such as personal finance, searching entrepreneurial opportunities etc. and share their experiences, career trajectories and success stories, so that the budding entrepreneurs shall get benefitted from these interactive sessions.
- c. The training modules shall be at per with the industry standards to maintain quality benchmarks of the training programme. The training material, training content, trainers shall be as per the industry standards. In order to facilitate student faculty engagement linkages shall be developed with the industry partners who shall be roped in for sharing their subject expertise and knowledge to make the incubate trainee programme a success.
- d. The training programme at the incubation programme shall be jointly developed with industry partners for which MOU's shall be undertaken.





e. The outcome-based strategy shall be to train maximum number of students and sensitize the training with intern / incubate requirements and needs for creating successful business enterprises.

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

- a. The Higher Education Institution shall develop Industry Engagement Cell to facilitate collaboration with key industry players, creation of knowledge bases and development of knowledge sharing platforms.
- b. The partner identification and development activity shall be given prime focus at the institutional level. The key partners shall be identified across industry segments and key economic sectors.
- c. Various collaborative events shall be organised at the institutional level. Experts and resource persons shall be invited from various line departments to share information regarding various governmental activities regarding development of entrepreneurship.
- d. At organisational level single point of contact shall be developed with escalation matrix in place to oversee the issues and challenges regarding mentorship, start-up facilitation activities and sharing of technical knowhow.

10.Entrepreneurial Impact Assessment

- a. Periodic impact assessment shall be undertaken to evaluate progress of the entrepreneurship and start-up supportive activities undertaken at the institutional level.
- b. The activities related to incubation, training and development shall be evaluated regularly to identify modalities and improvisations required.
- c. The monitoring activities shall be initiated at departmental level to identify the loopholes in the incubation process and strengthen it with more robust and efficient system of ideation, design, testing and commercialization





- d. Identifying key deliverables and measuring weekly progress with the targets identified at preincubation and incubation stage and scheduling transition of further activities.
- e. Measurement of successes with identification and resolution of social and community problems by way of sustainable, economical and profitable solutions.





GLOSSARY

Accelerators	Startup Accelerators design programs in batches and transform promising business ideas into reality under the guidance of mentors and several other available resources.
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 startup in exchange for equity in that startup). Angels are usually accredited investors. Since their funds are involved, they are equally desirous in making the startup successful.
Cash flow	Cash flow management is the process of tracking how
management	much money is coming into and going out of your business.
Co-Creation	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	Corporate social responsibility (CSR) is a self-regulating business model that helps a company be socially accountable – to itself, its stakeholders, and the public.
Cross-disciplinary	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 behaviors that are related to entrepreneurs.

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Entrepreneurial Individuals	An Individual who has an entrepreneurial mindset and wants to make his/her idea successful.
Entrepreneurship education	Entrepreneurship education seeks to provide students with the knowledge, skills and motivation to encourage entrepreneurial success in a variety of settings.
Experiential learning	Experiential learning is the process of learning through experience, and is more specifically defined as learning through reflection on doing.
Financial management	Financial Management is the application of general principles of management to the financial possessions of an enterprise.
Hackathon	A hackathon is a design sprint-like 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.
Host Institution	Host institutions refer to well-known technology, management and R&D Institutions working for developing startups and contributing towards developing a favorable entrepreneurial ecosystem.
Incubation	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.
Intellectual Property Rights Licensing	A 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).
Knowledge Exchange	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 startups. The experiential learning method will be used for teaching 'startup related concepts and contents' to introduce a positive influence on the thought processes of students. Courses like 'business idea generation' and 'soft skills for startups' would demand experiential learning rather than traditional class room 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	A prototype is an early sample, model, or release of a product built to test a concept or process.
Science parks	A science park, 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	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	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.





Startup	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	Technology Business incubator (TBI) is an entity, which helps technology-based startup businesses with all the necessary resources/support that the startup needs to evolve and grow into a mature business.
Technology Commercialization	Technology commercialization is the process of transitioning technologies from the research lab to the
Technology licensing	Agreement whereby an owner of a technological intellectual property (the licensor) allows another party (the licensee) to use, modify, and/or resell that property in exchange for a compensation.
Technology management	Technology management is the integrated planning, design, optimization, operation and control of technological products, processes and services.
Venture Capital	It 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 VCs provide is access to their networks for employees or clients for products or services of the start-up.

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