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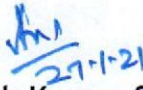
SU/Reg/Notification/2021/10

January 27, 2021

Notification

Sharda University Innovation and Start-up Policy-2020 was considered and approved by the Academic Council vide item no. 21.27 in its 21st Meeting held on 31-12-2020.

The said policy is hereby notified for all concerned.


(Ashok Kumar Singh)
Registrar

To,

- All Deans of Schools

Copy also to (for kind information):

- Chancellor/ Pro-Chancellor/ ED
- Vice-Chancellor/ Pro-Vice-Chancellor(s)
- Controller of Examinations
- All the Deans of School of Studies
- Dean, Academic Affairs/ Students' Welfare/ Research and Chief Proctor
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- Notification file

SHARDA UNIVERSITY INNOVATION AND STARTUP POLICY – 2020

(SU-ISP 2020) – Draft v5.0 (05 Nov. 2020)

Based on the guidelines of

National Innovation and Startup Policy 2019 for Students and Faculty (NISP-2019)

(A guiding framework for Higher Education Institutions)

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Glossary

SHARDA ENTREPRENEURIAL ECOSYSTEM

India aspires to become 5 trillion-dollar economy by 2024. To reach the mark, it needs to evolve systems and mechanisms to convert the present demographic dividend into high quality technical human resource capable of doing cutting edge research and innovation and deep-tech entrepreneurship. Sharda Entrepreneurial Ecosystem is an integral part of the Vision and Mission of Sharda University to nurture innovation and entrepreneurship. This is in line with the flagship initiatives of Government of India starting with Star-up India, Atal Innovation Mission to Aatmanirbhar Bharat. The University aims to foster innovations leading to design and development of new products, processes and technologies in congruence with industry and research organization. With this objective, the Sharda University Innovation and Startup Policy 2020 (SU-ISP 2020) has been framed and implemented across all verticals of the University in cognizance with NISP and Startup Policy of Govt. of Uttar Pradesh.

SU-ISP is a guiding framework to envision an educational system oriented towards startups and entrepreneurship opportunities for student and faculties. The guidelines provide ways for developing entrepreneurial agenda, managing Intellectual Property Rights (IPR) ownership, technology licensing and equity sharing in Startups or enterprises established by

faculty and students. In order to achieve the cultural and attitudinal shift and to ensure that 'Innovation and Startup' culture is the primary fulcrum of our higher education system a policy framework and guidelines are the need of this hour. These guidelines will enable institutions to actively support their faculty, staff and students to participate in innovation and entrepreneurship (I&E) related activities, thus encouraging students and faculty to consider startups and entrepreneurship as a career option. These guidelines will also help emphasize that the entrepreneurship is all about creating a business, which is financially successful.

Sharda University has more than 9,000 students and 700 faculty who are actively engaged in research and innovation driven projects and activities. The objective of this policy is to explore and support and nurture these innovations catering to form the base for self-sustained startup ecosystem. The policy aspires to promote student, working professionals and job seeker innovators incubating into startups.

The policy is aimed to nurture sector agnostic innovation, knowledge, skills, technological development, infrastructure and investment resulting in entrepreneurial ventures. Implementation of the policy will create an environment conducive to origination of ideas and their incubation into business and enable the University to emerge as a vibrant startup ecosystem and attract entrepreneurs and investors across the country.

A committee having members from diverse domains and expertise was constituted by Sharda University to formulate detailed guidelines on various aspects related to Innovation, Startup and Entrepreneurship management. This committee deliberated on different facets for nurturing the innovation and Startup culture in HEIs, which covered Intellectual Property ownership, revenue sharing mechanisms, norms for technology transfer and commercialization, equity sharing, etc. After multiple rounds of brainstorming sessions and discussion with the experts from I&E ecosystem stakeholders, SU-ISP 2020 for students and faculties of the University has been prepared.

(1) Strategies and Governance for Promoting Innovation and Entrepreneurship

Academic and research institutions around the world have been the primary source of basic research contributing towards the expansion of knowledge base, leading to remarkable discoveries in multiple domains. Given the critical role that the University level research and academics have played in fostering innovation in young minds, the Government of India and Government of Uttar Pradesh has set the following goals in this sector-

1. Shift from a marks-driven to an innovation powered educational system
2. Establish an entrepreneur friendly academic apparatus
3. Create a barrier free environment for free flow of ideas
4. Engagement with industry and successful entrepreneurs to promote innovation and startup culture.
5. Encourage startups by giving special incentives to students and faculty.

Identifying Academia as a principal point of origin of game-changing ideas, Sharda University aims to further augment University research and academic provisions through structured programs and incentives to the following sections-

- Students, Innovators and Entrepreneurs
- Startups

- Pre-incubation and Incubation facilities
- Skill building facilities

(A) Core Objectives:

Implementation of entrepreneurial vision at the University should be achieved through mission statements rather than stringent control system.

1. To encourage, facilitate and support emergence of at least 20 startups every year in the University.
2. To extend scale-up support to at least 3 high growth startups developing innovative solutions of high social impact.
3. To develop and work with an extensive network of startup ecosystem stakeholders to help entrepreneurs launch and scale innovative companies.
4. To equip innovators with the entrepreneurship skills required to succeed, using skill building methodologies that transcend traditional learning.

To achieve these goals, the University shall focus on 5-point agenda:

1. Develop physical infrastructure and incubation management capabilities.
2. Focus on sustainable funding models through capital funds and other instruments of support.
3. Support system for young innovators by including entrepreneurship and innovation based experimentation in early stages of enrolled academic program.
4. Proactive engagement with industry to identify problems and develop innovative solutions which can be adopted and implemented by the industry.
5. Encourage entrepreneurs through special incentives who are working in rural and social domain for the benefit of the society and improving quality of life in villages and unprivileged or underprivileged sections of the society.

(B) Financial Strategy

Resource mobilization plan has been worked out at the University level for supporting pre-incubation, incubation infrastructure and facilities. A sustainable financial strategy has been defined in order to reduce the organizational constraints to work on the entrepreneurial agenda. Sharda University shall follow the four point financial strategy for this purpose.

- i. One of the major challenges for a startup is the lack of funds to commercialize his/her idea. As a consequence, most ideas generated in the minds of our youth don't even go into the prototype development phase. Lack of funding is a crucial bottleneck in the innovation ecosystem. Investment in the entrepreneurial activities has been included as a part of the institutional financial strategy. Minimum 1% fund of the total annual budget of the institution should be allocated for funding and supporting innovation and startup related activities through creation of separate 'Innovation Fund' - a fund that will function as a master fund. The University shall leverage the expertise of senior officials involved in startup ecosystem including faculty, incubation managers, corporate network and Government agencies, and constitute a panel – 'Innovation Fund Council' to decide the nature and amount of fund utilization. The fund shall be managed by a professional fund manager. The structure of 'Innovation Fund Council' is as follows:

- a) Vice Chancellor - Chairman
 - b) Pro-Vice Chancellor – Convenor
 - c) Dean or Senior Professor from SET, SMSR (Dean/Senior Professor of other schools shall be the invited members in the meetings of this Council)
 - d) NISP Coordinator
 - e) IIC President
 - f) Representative from Incubation Facility of the University
- ii. A part of the Innovation Fund shall be used as ‘Seed Innovation’ fund to fund the innovators at the idea or pre-seed stage for prototyping. This fund is aimed at encouraging innovators who need early stage funding to work on their research discoveries, college project ideas etc. Innovation Seed Fund aims to ease the costs incurred at an early stage such as company registration, patent filing, quality certifications, travel etc. The fund shall be disbursed either through the ‘Innovation Fund Council’ of the University or one of the constituted incubators. Such early stage innovators shall be given the privilege to register themselves as willing-to-be entrepreneurs with an incubator.
 - iii. To reduce the dependency on internal funding, all efforts shall be made to bring funding from external Central and State Government sources such as DST, DBT, MHRD, AICTE, TDB, TIFAC, DSIR, CSIR, BIRAC, NSTEDB, NRDC, Startup India, Invest India, MeiTy, MSDE, MSME, etc. The funds received through such sources contributing to Innovation and Entrepreneurship (I & E) shall be utilized under a new initiative – ‘Phoenix Innovation’ Fund.
 - iv. To support technology incubators, University may approach non-government sources and private and corporate sectors to generate funds, under Corporate Social Responsibility (CSR) as per Section 135 of the Company Act 2013. Opportunities of sponsorships and donations shall be explored to raise funds for I& E. Special recognition and reward mechanism shall be framed at the University level to promote such engagements.

(C) I & E Promotion Strategy

- (i) Engagements of Alumni network shall be increased to promote I& E. Pre-incubation and Incubation facilities shall include special benefits in its policy and guidelines for Alumni who are willing to join the incubation facilities of the University.
- (ii) To expedite the decision making, hierarchical barriers should be minimized. For this purpose, Institution’s Innovation Council and Entrepreneurship Cell shall act as core I& E Promotion Council with autonomy and ownership of initiatives.
- (iii) Importance of I& E and five point agenda to achieve goals of this policy shall be well known across the institute. The Institution’s Innovation Council and Entrepreneurship Cell shall contribute major role in promotion of I & E. The same shall be highlighted during the institutional programs such as conferences, seminars, workshops, skill building programs etc.
- (v) The Institution’s Innovation Council and Entrepreneurship Cell shall take proactive initiatives in order to integrate the entrepreneurial activities across various schools, departments, special facility centres and faculties within the university, thus breaking the silos.

- (vi) To support commercialization of product, service and technology developed by innovators and startups, product to market strategy shall be developed on case to case basis.
- (vii) Development of entrepreneurship culture should not be limited within the boundaries of the institution. The University shall strive to become the driving force in developing entrepreneurship culture in its vicinity (regional, state and national level). This shall include giving opportunity for regional startups, provision to extend facilities for outsiders and active involvement of the University in defining strategic direction for local development.
- (viii) Strategic international partnerships should be developed using bilateral and multilateral channels with national and international innovation clusters and other relevant organizations. Moreover, international exchange programs, internships, engaging the international faculties in teaching and research should also be promoted.

(2) Startup Enabling Institutional Infrastructure

The University shall anchor all its entrepreneurship related efforts to pre-incubation and incubation facilities for nurturing innovations and startups. Incubation and Innovation need to be organically interlinked. Without innovation, new enterprises are unlikely to succeed. The goal of the effort should be to link INNOVATION to ENTREPRISES to FINANCIAL SUCCESS. These Pre-Incubation/Incubation facilities should be accessible 24x7 to students, staff and faculty of all disciplines and departments across the institution. The university may offer mentoring and other relevant services through Pre-incubation/Incubation facilities in-return for fees, equity sharing and (or) zero payment basis. The corresponding guidelines shall be prepared with direct involvement of authorized coordinators/in-charges, giving suitable autonomy to the facility. Dedicated webpage for innovation and entrepreneurship shall be created on the University website to disseminate information about these facilities.

Innovation: Conceptually, any innovation implies substantial improvement in the ways of doing things, producing goods or providing services. It may involve a new use of an existing resource or producing or delivering existing goods or services through new methods or new instruments/materials. It is a process driven approach to identify and develop solution for industry and society. The University aims to identify and support innovative ideas of students, alumni, faculty and innovators from the outside community at various levels:

- (i) Proof-of-concept (POC) stage:** Proof-of-concept is the stage where the innovator/ startup demonstrate a fundamental functioning demonstration of the idea/ hypothesis/ innovation.
- (ii) Prototype-stage:** A prototype-stage is a pre-production/ pre-launch stage where the innovator/ startup team has developed a basic minimum viable product (MVP) with most key features desired in the final product.
- (iii) Minimum viable product (MVP):** MVP is a product with just enough features together validated learning about the product and its continued development.

Laboratories and Research and development facilities of the University shall contribute to develop innovative ideas at various stages. Each school and central facilities shall identify the

labs and available resources such as machines, equipment, software etc. which can be used to nurture innovation and support innovators in their entrepreneurial journey. A dedicated space in such identified facilities shall be assigned to promote and support innovation. List of such facilities shall be displayed on the website and enclosed as Annexure with this policy.

Pre-incubation: Pre-incubation makes up the support systems towards the early stage of the innovation & startup value chain that comprises an enabling environment to trigger creative ideas, hand-holding ideas to validate its early users, basic common working infrastructures, and access to existing resources before the innovation reaches an enterprise stage.

The University shall establish pre-incubation facilities such as Institution's Innovation Council (as per guidelines of MoE Innovation Cell), Entrepreneurship Cell, Innovation Cell, Startup Cell, Student Clubs etc. Pre-incubation facilities may or may not be a separately registered entity or Special Purpose Vehicle (SPV). These facilities must have representation from all the schools, departments and facilities of the University including faculty, students and external experts. All pre-incubation facilities shall work in close coordination with a clear vision to create an innovation ecosystem in and around the University. The facilities must ensure maximum engagement of the students with objective to identify and facilitate young innovators. Activity calendar in sync with University academic and activity calendar shall be prepared for such facilities and displayed on the webpage created for innovation and entrepreneurship.

Incubation Facilities: Incubator is an organization established to accelerate the growth of startups, through an array of business support, resources, mentorship, networking and other common services such as physical space, capital, and coaching. Incubation and technology commercialization facilities shall be established as separate entities, preferably registered under Section-8 of Company Act 2013 or 'Society' registered under Society Registration Act, with independent governance structure. This will allow more freedom to Incubators in decision making with less administrative hassles for executing the programs related to innovation, IPR and Startups. Moreover, they will have better accountability towards investors supporting the incubation facility. The modalities regarding Equity Sharing in Startups supported through these units will depend upon the nature of services offered by these units and are elaborately i

Sharda Launchpad Federation – a company registered under section 8, has been established as in-campus incubator of the University. A dedicated space of at least 5000 sq. ft., with scope of expansion upto 10,000 sq.ft., has been allocated to Incubation facilities having basic infrastructure for office space and other enterprise related activities. Such facilities shall also be equipped with computing, prototyping and testing facilities for technology startups at POC stage.

(3) Nurturing Innovations and Startups

Process and mechanism, which support easy creation and nurturing of Startups/enterprises, are the key components for a vibrant and progressive innovation and startup ecosystem. Such initiatives attain their optimum efficiency when a pool of quality innovations and early stage startups emerge and grow on a regular basis. Sharda University aims to support entrepreneurial efforts by students (UG, PG, Ph.D.), staff (including temporary or project staff), faculty, alumni and potential start up applicants even from outside the institutions.

- i.** Each school shall conduct ideation and innovation challenge/camp, half yearly. The entries shall be invited under three broad categories i.e. idea stage, prototype stage and minimum viable product (MVP) stage. All the participants shall be suitably supported based on their quality and stage of innovation by the facilities created as per guidelines given in section 2 of this policy.
- ii.** For ease of process and autonomy, the pre-incubation and incubation facilities should be accessible to innovator or entrepreneur without the approval of any other authority external to the facility. The suggested methods to connect are – email, online form, written or printed application. The facilities shall issue their own process and guidelines regarding the same.
- iii.** On registration of a student, faculty and staff with any pre-incubation and incubation facility, the timeframe to access the facilities shall be mutually decided between the facility and reporting department/school of the applicant.
- iv.** The University and its facilities shall allow licensing of IPR from institute to its students and faculty intending to initiate a startup based on the technology developed or co-developed by them or the technology owned by the institute. The cost of license can be in terms of any of the below given forms, to be decided mutually.
 - a)Equity in the venture
 - b)License fee
 - c)Royalty
 - d) Sharing of revenue/funds raised
- v.** Students, faculty and staff shall be allowed to work on their innovative projects and setting up startups in any domain and sector along with their studies and regular job. Students, faculty and staff can also work as intern or part-time with the incubated startups while studying/working. Norms for such involvement of students are mentioned further in this section and those for faculty/staff are mentioned separately in section 7.
- vi.** Student Entrepreneurs may earn credits for working on innovative prototypes/Business Models/Ventures after proper assessment of the work done. The student must take approval from the competent authority through proper channel in the beginning of the term to avail any such credit benefit.
- vii.** Student inventors may opt for startup in place of their mini project/major project, seminars, and summer trainings. The area in which student wants to initiate a startup may be interdisciplinary or multi- disciplinary. However, the student must describe how they will separate and clearly distinguish their ongoing research/academic activities as a student from the work being conducted at the startup. Prior approval from Dean Academics with the recommendations of the Dean of the School and registration at incubation facility is mandatory to avail this facility.
- viii.** Students who are under incubation, pursuing some entrepreneurial ventures while studying may be allowed to use their address in the institute to register their company, if required, with the consent of the University after obtaining No Objection Certificate from the University.
- ix.** Students entrepreneurs may be allowed to sit for the examination, even if their attendance is less than the minimum permissible percentage, with due permission from the institute. Verification from Incubation facilities (either in-campus or under State/Centre Government) would be required for the number of hours for which the student was engaged in entrepreneurial activity. Any self-declaration by the student or by private co-

work space outside the University without permission through proper channel will not be admissible.

- x. Students may be allowed to take a year break upto 1 year for N+1 programs and 2 years for N+2 programs (depending upon the decision of review committee constituted by the institute) to work on their startups and re-join academics to complete the course. Student entrepreneurs may earn academic credits for their efforts while creating an enterprise. The review committee may include Dean Academics, Dean of the School, Program HOD and representative of Incubation Facility of the University.
- xi.** The University may provide accommodation to the entrepreneurs within the campus for some period of time as per following guidelines:
 - a) The accommodation for male and female entrepreneurs shall be provided according to the availability of rooms in Boys and Girls hostels.
 - b) The hostel charges shall be applicable as per the rates notified by the Registrar for different hostels and the category of rooms. However the same will be calculated on a pro-rata basis according to the duration of stay. The charges would be calculated on a monthly basis irrespective of the number of days stayed in a particular month.
 - c) The applicant should take prior approval from the Head of the Department and fill the hostel application form before allotment of room.
- xii.** Faculty and staff shall be allowed to take off for a semester or year break as special case leave for working on startups and come back. This shall be guided by the HR policy of the University. Resources of the University shall be made available to faculty/students/staff wishing to establish start up as a fulltime effort. The operational and material cost of any resource or facility, which is available on payment basis, shall be applicable.
- xiii.** The University aims to introduce part-time/full time MS/ MBA/ PGD (Innovation, entrepreneurship and venture development) program where one can get degree while incubating and nurturing a startup company. Schools shall refer to the guidelines issued by the Regulatory body for a similar program and propose to start such programs to the Academic Council.
- xiv.** The University will facilitate the startup activities/ technology development by allowing students/ faculty/ staff to use infrastructure and facilities of the University, as per the choice of the potential entrepreneur in the following manners:
 - a. Short-term/ six-month/ one-year part-time entrepreneurship training.
 - b. Mentorship support on regular basis.
 - c. Facilitation in a variety of areas including technology development, ideation, creativity, design thinking, fund raising, financial management, cash-flow management, new venture planning, business development, product development, social entrepreneurship, product- costing, marketing, brand-development, human resource management as well as law and regulations impacting a business.
 - d. The University shall also link the startups to other seed-fund providers/ angel funds/ venture funds or itself may set up seed-fund once the incubation activities mature.
 - e. License institute IPR as discussed in section 4 below.

- xv. In return of the services and facilities, University may take 2% to 9.5% equity/ stake in the startup/ company, based on the brand used, faculty contribution, support provided and use of institute's IPR (a limit of 9.5% is suggested so that University has no legal liability arising out of startup. The institute should normally take much lower equity share, unless its full-time faculty/ staff have substantial shares). Other factors for consideration should be space, infrastructure, mentorship support, seed- funds, support for accounts, legal, patents etc.
 - a) For staff and faculty, institute can take no-more than 20% of shares that staff / faculty takes while drawing full salary from the institution; however, this share will be within the 9.5% cap of company shares, listed above.
 - b) No restriction on shares that faculty / staff can take, as long as they do not spend more than 20% of office time on the startup in advisory or consultative role and do not compromise with their existing academic and administrative work / duties.
 - c) In case of compulsory equity model, student startup may be given a cooling period of 3 months to use incubation services on rental basis to take a final decision based on satisfaction of services offered by the University/incubator.
- xvi. The University should also provide services based on mixture of equity, fee-based and/ or zero payment model. So, a startup may choose to avail only the support, not seed funding, by the institute on rental basis. The incubation facilities shall frame their startup policy accordingly.
- xvii. The University shall extend the startup facility to alumni of the institute as well as outsiders. The terms of use may be defined suitably by the incubation facility.
- xviii. Participation in startup related activities needs to be considered as a legitimate activity of faculty in addition to teaching, R&D projects, industrial consultancy and management duties and must be considered while evaluating the annual performance of the faculty. Related guidelines and formats shall be included in the HR policy. Every faculty shall be encouraged to mentor at least one startup or innovative ideas of students.
- xix. Product development and commercialization as well as participating and nurturing of startups shall be added to a bucket of faculty-duties and each faculty would choose a mix and match of these activities and then respective faculty shall be evaluated accordingly for their performance and promotion. Performance evaluation policies for faculty and staff shall be updated/ revised accordingly.
- xx. At no stage, any liability because of any activity of any startup must not accrue to the University and/or its incubation facilities.

(4) Product Ownership Rights for Technologies Developed at Institute

A key first step for the University is to establish relationships with the private sector etc. for the transition of secure technologies & to have a consistent and open IP strategy that is officially approved by the University authority and accessible to researchers and external stakeholders for consultation. In a variety of instances IP initiatives are the products of a participatory mechanism representing all primary players within the organization University IP laws usually protect all IP rights, in particular patents and copyrights, but can also include the transfer of know-how. The Brand Ownership Rights and their commercialization for technologies established at University are arranged & affixed in the manner enumerated herein.

- (i) IP policy should be a complex framework which can be revised if appropriate, offering consistency on a variety of topics which consist of:-
- Provide rules and guidelines on the commercial exploitation of IP produced within the university;
 - Ensure that discoveries, inventions and innovations created by staff and students are most commonly used and expected to help the public;
 - Set conditions for ownership;
 - Define the duties, rights and obligations of all stakeholders;
 - Develop basic guidance for the implementation of the IP policy;
 - Identify guidelines for revenue sharing where revenue is created by the marketing of IP.
- (ii) Criteria for Ownership:
- The IP policy of the University typically reaffirms the main principle, sets out the goals of the University with regard to the exercise of its IP rights which possess number of relevant circumstances, such as:-
- Cases in which IP rights are created as a result of research funded (in whole or in part) in the context of research contracts;
 - Cases in which IP rights are provided as a result of funding by a public sector entity that may have particular contractual terms connected with the funding;
 - Cases in which the IP is created by researchers who are not bound by employment contracts, such as undergraduate or postgraduate students;
 - Cases in which technologies have been created in collaboration with third parties (individuals, businesses or University).
- (iii) When University facilities / funds are used extensively or where IPR is established jointly as part of Inventors and University, it may jointly license the product / IPR to any commercial entity, with inventors having the primary say. However, the curriculum / academic operation, IPR shall be held equally by the inventors and the University. License fees may be either / or a mixture 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
- (iv) Further the University will not be permitted to keep the equity in compliance with the new law meaning that the (Special Purpose Vehicle) SPV such as incubator or any other registered facility must be allowed to retain the equity/ requested to keep equities on their behalf.
- (iv) If one or more of the inventors wish to incubate a company and license the product to this company, the royalties would be no more than 4% of sale price, preferably 1 to 2%, unless it is pure software product. If it is shares in the company, shares will again be 1% to 4%. For a pure software product licensing, there may be a revenue sharing to be mutually decided between the institute and the incubated company.
- (v) On the other hand, when the product / IPR is created by innovators who do not use any University facilities, outside of working hours (for employees and faculty) or not as part of a student's education, the product / IPR would be wholly owned by inventors in relation to the sacrifices made by them. In this situation, inventors may decide to license the technology to third parties or use the technology as they see fit.

- (vi) If there is a conflict of ownership, a minimum of five member committees composed of two faculty members (who have established appropriate IPR and converted into commercialization), two alumni / industry experts (who have expertise in technology commercialization) and one legal consultant with expertise in IPR will investigate the matter after consulting the inventors and help them to address the conflict let's hope everyone's happiness. The University can use the alumni / faculty of other University s as members if they cannot find a sufficiently qualified alumni / faculty of their own.
- (vii) The IPR cell or incubation centre can only be a coordinator and facilitator for the provision of resources to professors, employees and students. They would have no input as to how the invention is carried out, if it is patented or if it is to be authorized. If the University wants to pay for patent litigation, they will have a commission to investigate whether the IPR wants worth patenting. The committee should be made up of faculty with experience and excellence in technology translation. If inventors use their own funds or non-University funds, they alone should have a say in patenting.
- (viii) All decision-making bodies for incubation / IPR / technology sensing will be made up of faculty and experts who have excelled in the field of technology translation. Other faculties in the department / University will have no say, including heads of departments, heads of University s, deans or registrars.
- (ix) University should promote interdisciplinary research and publication on start-ups and entrepreneurship.
- (x) Revenue share arrangement is a core feature of IP laws. Revenue sharing offers a significant opportunity for researchers to ensure that their innovations are made accessible to the public body and to explore the best possible means of commercialization. In addition, the revenue share regulations specifically describe what form of profits is to be paid and usually refer not only to royalties but to any other lumped or bonus pay-out provided to the technology marketing organization.

In this regard the revenue raised must first cover any expenditure relating to the security and use of the IP and the net income is subsequently distributed between the researcher(s), the department, the university, the Technology Transition Unit, the Support Organization and/or other partners in the figures set out in the legislation. IP regulations also set sales limits and the amount earned by the researcher declines as gross net profits rise.

University IP regulations can also determine how decisions are to be made on how to distribute profits where more than one researcher is involved.

That collaborative or sponsored research involving a University and a private company is common in Universities. Private companies fund research undertaken within the university by university researchers using university equipment. In such cases, it is important to have clear rules on IP ownership as well as guidelines on whether an industrial partner is entitled to an exclusive or non-exclusive patent, whether it would have to pay royalty to use the invention that benefits from such research, and whether it would have the right to sell or sublicense to third parties.

(xi) Responsibility for IP control: IP policies usually specify which body of the university may be responsible for the security and maintenance of the IP rights of the university. In certain instances, this responsibility is delegated to the technology transfer office (see section III for more detail on technology transfer offices). Responsibility to review reports of inventions and decisions on whether to license or not are usually also carried out in the IP rules.

(xii) Obligations of the University and the writers: Internal University IP policies can set out such responsibilities for researchers as well as for the University itself. This can also be covered by university job arrangements with researchers. The inventor's responsibilities which require, for example:

- The requirement to report certain details to the relevant person specified in the agreement, study findings that may be covered by IP rights;
- Not to reveal the technology to third parties in such a manner as to undermine its patentability;
- To abide by all agreements reached with foreign parties;
- To aid in the security and control of IP; and
- The declaration of certain conflicts of interest. Obligations of the university (or its related bodies) can include, for example,

I. Reviewing all disclosures;

II. Mitigating delays;

III. Retaining secrecy of inventions;

IV. Promoting transfers to the good of the public; and

V. To transfer rights to an author, research support organization or government if it chooses not to issue a patent or license.

(5) Organizational Capacity, Human Resources and Incentives

(i) To foster I& E culture, each school should recruit people that have a strong innovation and entrepreneurial/ industrial experience, behavior and attitude. Such people shall be given the responsibility of coordinating the activities innovation and pre-incubation facilities within the school and at the university level.

- a) Some of the relevant faculty members with prior exposure and interest should be deputed for training of the students to promote I&E.
- b) Faculty with exposure to startup ecosystem and experience in incubation management should be deputed to pre-incubation and incubation facilities.
- c) To achieve better engagement of staff in entrepreneurial activities, institutional policy on career development of staff should be developed with constant up skilling.

(ii) Faculty and departments of the University have to work in coherence and cross-departmental linkages should be strengthened through shared faculty, cross-faculty

teaching and research in order to gain maximum utilization of internal resources and knowledge.

- (iii) Periodically some external subject matter experts such as guest lecturers or alumni can be engaged for strategic advice and bringing in skills which are not available internally. Such activities should be mentioned in the event calendar of the schools.
- (iv) Faculty and staff should be encouraged to do courses on innovation, entrepreneurship management and venture development. Collaboration with incubation centres of IIMs, IITs and other reputed organizations should be established. Faculty undergoing such training and courses should be actively engaged with pre-incubation and incubation facilities.
- (v) In order to attract and retain right people, HR policies shall include academic and non-academic incentives and reward mechanisms for all staff and stakeholders that actively contribute and support entrepreneurship agenda and activities.
 - a) The reward system for the staff may include office and lab space for entrepreneurial activities, reduced teaching loads, awards, trainings, etc.
 - b) The recognition of the stakeholders may include offering use of facilities and services, strategy for shared risk, as guest teachers, fellowships, associateship, etc.
 - c) A performance matrix should be developed and used for evaluation of annual performance.

(6) Creating Innovation Pipeline and Pathways for Entrepreneurs at Institute Level

- i. To ensure exposure of maximum students to innovation and pre incubation activities at their early stage of program of study and to support the pathway from ideation to innovation to market, mechanisms should be devised at University level. The innovation facilities in various schools and pre-incubation and incubation facilities at the University level should, together, build a roadmap to support entrepreneurs. The initiatives should be focused on the following:
 - a. Spreading awareness among students, faculty and staff about the value of entrepreneurship and its role in career development or employability.
 - b. Students/ staff should be taught that innovation (technology, process or business innovation) is a mechanism to solve the problems of the society and consumers. Entrepreneurs should innovate with focus on the market niche.
 - c. Students should be encouraged to develop entrepreneurial mindset through experiential learning by exposing them to training in cognitive skills (e.g. design thinking, critical thinking, etc.), by inviting first generation local entrepreneurs or experts to address young minds. Initiatives like idea and innovation competitions, hackathons, workshops, bootcamps, seminars, conferences, exhibitions, mentoring by academic and industry personnel, throwing real life challenges, awards and recognition should be routinely organized by the innovation, pre-incubation and incubation facilities.
 - d. Prepare the students for creating the start up through the education. Integration of education activities with enterprise-related activities should be done.

- ii. The institute should link their startups and companies with wider entrepreneurial ecosystem and by providing support to students who show potential, in pre-startup phase. Connecting student entrepreneurs with real life entrepreneurs will help the students in understanding real challenges which may be faced by them while going through the innovation funnel and will increase the probability of success.
- iii. The Institution's Innovation Councils (IICs) established as per the guidelines of MHRD's Innovation Cell (MIC) should conduct activities as per the event calendar of MIC and also support self-initiatives of other facilities and schools. University shall allocate appropriate budget for its activities. IICs should guide institutions in conducting various activities related to innovation, startup and entrepreneurship development. Collective and concentrated efforts should be undertaken to identify, scout, acknowledge, support and reward proven student ideas and innovations and to further facilitate their entrepreneurial journey.
- iv. For strengthening the innovation funnel of the institute, access to financing must be opened for the potential entrepreneurs.
 - a. Networking events must be organized to create a platform for the budding entrepreneurs to meet investors and pitch their ideas.
 - b. Provide business incubation facilities: premises at subsidized cost. Laboratories, research facilities, IT services, training, mentoring, etc. should be accessible to the new startups.
 - c. A culture needs to be promoted to understand that money is not FREE and is risk capital. The entrepreneur must utilize these funds and return. While funding is taking risk on the entrepreneur, it is an obligation of the entrepreneur to make every effort possible to prove that the funding agency did right in funding him/ her.
- v. The University shall develop a ready reckoner of Innovation Tool Kit, which must be kept on the University's website to answer the doubts and queries of the innovators and enlisting the facilities available at the University.

(7) Norms for Faculty Startups

- i. For better coordination of the entrepreneurial activities, the University shall support the faculty to do startups. Preference shall be given to those faculty startups which are based on the technology originating from within the same University.
 - a) Role of faculty may vary from being an owner/ direct promoter, mentor, consultant or as on-board member of the startup.
 - b) The University shall develop a policy on 'conflict of interests' (COI) to ensure that the regular duties of the faculty don't suffer owing to his/her involvement in the startup activities. The policy on COI shall be included as annexure to this policy.
 - c) Faculty startup may consist of faculty members alone or with students or with faculty of other institutes or with alumni or with other entrepreneurs.
- (iii) Faculty must clearly separate and distinguish on-going research at the institute from the work conducted at the startup/ company.

- (iv) In case of selection of a faculty start up by an outside national or international accelerator, a leave of one semester/ year may be permitted to the faculty as per the guidelines of HR policy.
- (v) Faculty must not accept gifts from the startup.
- (vi) Faculty must not involve research staff or other staff of institute in activities at the startup and vice-versa without taking permission from the competent authority following proper channel.
- (vii) Human subject related research in startup should get clearance from ethics committee of the institution.

(8) Pedagogy and Learning Interventions for Entrepreneurship Development

- (i) Diversified approach should be adopted 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.
 - a) Student clubs/ bodies/ departments must be created for organizing competitions, bootcamps, workshops, awards, etc. These bodies should be involved in institutional strategy planning to ensure enhancement of the student's thinking and responding ability.
 - b) University shall declare annual 'INNOVATION & ENTREPRENEURSHIP AWARD' to recognize outstanding ideas, successful enterprises and contributors for promoting innovation and enterprise ecosystem within the institute.
 - c) For creating awareness among the students, the teaching methods should include case studies on business failure and real-life experience reports by startups. At least two interactions with entrepreneurs should be organized in one semester for this purpose.
 - d) Tolerating and encouraging failures: Our systems are not designed for tolerating and encouraging failure. Failures need to be elaborately discussed and debated to imbibe that failure is a part of life, thus helping in reducing the social stigma associated with it. Very importantly, this should be a part of institute's philosophy and culture.
 - e) Innovation champions shall be nominated from within the students/ faculty/ staff for each school/stream of study.
- (ii) 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 should be made available to the students.
 - a. Integration of expertise of the external stakeholders should be done in the entrepreneurship education to evolve a culture of collaboration and engagement with external environment. The Innovation, pre-incubation and incubation facilities should collaborate with other stakeholders of the startup ecosystem for sharing of experts and other resources.
 - b. In the beginning of every academic session, an induction program is conducted for the freshly inducted students. Sessions focused on the importance of I&E should be

included in the induction program so that students are made aware about the entrepreneurial agenda of the University and available support systems.

- c. Curriculum for the entrepreneurship education should be continuously updated based on entrepreneurship research outcomes. This should also include case studies on failures. Academic council should include it as one of the agenda points in its annual meeting for curriculum revision/update.
 - d. Industry linkages should be leveraged for conducting research and survey on trends in technology, research, innovation, and market intelligence.
 - e. Sensitization of students should be done for their understanding on expected learning outcomes. Pre-incubation facilities shall conduct such sensitization events at school level.
 - f. Student innovators, startups, experts must be engaged in the dialogue process for while developing the strategy for implementation of this policy and also for impact analysis and revision process so that it becomes need based.
 - g. Customized teaching and training materials should be developed for startups.
 - h. It must be noted that not everyone can become an entrepreneur. The entrepreneur is a leader, whowould convert an innovation successfully into a product; others may join the leader and work for the startup. It is important to understand that entrepreneurship is about risk taking. Carefully evaluation and analysis is required to decide whether a student is capable and willing to take risk. Incubation facilities should follow a process for such evaluation before registration of a student as an incubatee.
- (iii) Academic council and Dean Research should recommend pedagogical changes to ensure that maximum number of student projects at both UG and PG level, Ph. D. research work are based around real life challenges. Innovations based on problems of industry and society should be promoted and given special recognition/award. Learning interventions developed by the University for inculcating entrepreneurial culture should be constantly reviewed and updated.

(9) Collaboration, Co-creation, Business Relationships and Knowledge Exchange

- (i) Stakeholder engagement should be given prime importance in the entrepreneurial agenda of the University. The University should find potential partners, resource organizations, micro, small and medium- sized enterprises (MSMEs), social enterprises, schools, alumni, professional bodies and entrepreneurs to support entrepreneurship and co-design the programs.
 - a. To encourage co-creation, bi-directional flow/ exchange of knowledge and people should be ensured between institutes such as incubators, science parks, etc.
 - b. Institute should organize networking events for better engagement of collaborators and should open up the opportunities for staff, faculty and students to allow constant flow of ideas and knowledge through meetings, workshops, space for collaboration, lectures, etc.
 - c. Care must be taken to ensure that events DON'T BECOME an end goal. First focus of the incubator should be to create successful ventures.

- (iii) Knowledge exchange through collaboration and partnership should be made a part of institutional policy and institutes must provide support mechanisms and guidance for creating, managing and coordinating these relationships.
- a. Through formal and informal mechanisms such as internships, teaching and research exchange programmes, clubs, social gatherings, etc., faculty, staff and students of the University should be given the opportunities to connect with their external environment.
 - b. Connect of the University with the external environment must be leveraged in form of absorbing information and experience from the external ecosystem into the University's environment.
 - c. Single Point of Contact (SPOC) mechanism should be created for the students, faculty, collaborators, partners and other stakeholders to ensure access to information.
 - d. Mechanisms should be devised by the institutions to ensure maximum exploitation of entrepreneurial opportunities with industrial and commercial collaborators.
 - e. Knowledge management should be done by the institute through development of innovation knowledge platform using in-house Information & Communication Technology (ICT) capabilities.

10. Entrepreneurial Impact Assessment

- (i) Impact assessment of University's entrepreneurial initiatives such as pre-incubation, incubation, entrepreneurship education shall be performed regularly using well defined evaluation parameters.
- a) Monitoring and evaluation of knowledge exchange initiatives, engagement of all departments and faculty in the entrepreneurial teaching and learning should be assessed.
 - b) Number of startups created, support system provided at the institutional level and satisfaction of participants, new business relationships created by the institutes should be recorded and used for impact assessment.
 - c) Impact should also be measured for the support system provided by the institute to the student entrepreneurs, faculty and staff for pre-incubation, incubation, IPR protection, industry linkages, exposure to entrepreneurial ecosystem, etc.
- (ii) Formulation of strategy and impact assessment should go hand in hand. The information on impact of the activities should be actively used while developing and reviewing the entrepreneurial strategy.

Hierarchy of Objectives	Key Performance Indicators (KPIs)	Means and Verification
Vision	% Increase in Students and faculty engaged in pre-incubation and incubation activities	Registration in pre-incubation and incubation facilities

	No of Established Start-ups	CIN of startups
Goal/Impact	<ul style="list-style-type: none"> •Enabling Environment Established with multiple level of support for innovation & Entrepreneurship in Institute •No/% of Graduate students choose Entrepreneurship as career & # Increment/year •No/% of Student and Graduates Practicing Entrepreneurship & # Increment/year 	<ul style="list-style-type: none"> •Biannual Survey on number of activities and their impact • Data for ARIIA, NIRF Rankings
Outcomes	<ul style="list-style-type: none"> •Nos/% of student & faculty mass with entrepreneurship Orientation, # Increment/year •Nos/% of Student & faculty motivated to start any entrepreneurial activity & #Increment •No of IPR/Innovations developed for commercialization & # Increment/year •No of Student/Early Stage Start-ups formed & # Increment/year •No/% of In-house Expert Capacity available for Advisory Services & # Increment/year •% of Satisfaction over Advisory services offered to Innovators & Early Stage Entrepreneurs •Network Established with connecting multiple stakeholders & Ecosystem Enablers 	<ul style="list-style-type: none"> •Biannual Survey • Registration in pre-incubation and incubation facilities • ARIIA/NIRF data • In-house Mentors
Outputs	<ul style="list-style-type: none"> •No/% of Student & faculty mass exposed to awareness/orientation building programs & # •No/% of Students covered through entrepreneurship Education; MOOC, Class Room, Experiential Learning programs etc. & # Increment/year •No of beneficiaries are accessing the infrastructure & facilities per day, month & # Increment •No of innovators identified; No of awarded,/recognised; No of Supported, & # Increment •No of Entrepreneurs identified; No of awarded,/recognised; No of Supported, & # Increment •No of Student projects turns to (commercialize) Innovations •No of IPR based product/services generated and registration filed •No/% of in-house trained professional developed for advisory services & # Increment •No of Research Studies on Entrepreneurship published •No of Regional, National and International linkages established for the start-up & innovation 	<ul style="list-style-type: none"> •Biannual Survey •Monthly progress report

	<ul style="list-style-type: none"> •No/% Representatives of experts & entrepreneurial students across Dept& Disciplines. •No of Beneficiaries Referred to Incubators/investors for further support through Start-up Cell •No of Beneficiaries generated under various schemes and programs leveraged and converged at Start-up Cell 	
Activities	<ul style="list-style-type: none"> • No and types of Education/Skill certification program on Entrepreneurship, IIPR, Innovation etc. • No of workshops, awareness, market out reach events, orientation, advocacy meetings etc. • No of networking event (Intra and Inter-institutional, enablers, stakeholders) organized • No of skill and competency development training programs/FDPs/EDPs organised • No of research studies related to Entrepreneurship conducted • No of convergence and leverage with schemes/programs offered by major enablers • No of national and regional award and campus Hackathon like events organised • Incentivising Entrepreneurship and Innovation; services and facilities; Start-up Manual, policies, tool kits etc. • Amount of total budget/year spend against total institution revenue for start-up • Budget allocation and Spend ratio for the start-up mandate in institute 	<ul style="list-style-type: none"> •Biannual Survey •Quarterly News Letter •Monthly progress report •Review Meetings

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 share 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 management	Cash flow management is the process of tracking how 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 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	Corporate social responsibility (CSR) is a self-regulating business model that helps a company be socially accountable – to itself, its stakeholders, and the public. Responsibility
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.
Entrepreneurial	An individual who has an entrepreneurial mindset and wants to make his/her idea successful.
Entrepreneurship	Entrepreneurship education seeks to provide students with the knowledge, skills, and motivation to encourage entrepreneurial success in a variety of settings. education
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 an idea of early prototype of their product or service. Such companies can 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 marketplace.

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 startup.