K. K. Wagh Institute of Engineering Education and Research, Nashik



## Innovation and Start-up policy-2020 for Students and Faculty





Approved V.N. al.

**RINCIPAL** 

K.K.Wagh Institute of Engineering Education & Research Hirabai Haridas Vidyanagari, Amrut Dham, Nashik-422 003

### Abstract:

K. K. Wagh Institute of Engineering Education & Research (KKWIEER) Innovation and Start up Policy 2020 for students and faculty of institute will actively engage students, faculties and staff in innovation and entrepreneurship related activities by enabling creation of a robust innovation and start-up ecosystem in the campus. This policy will also facilitate in bringing uniformity in entire institute in terms of Intellectual Property ownership management, technology licensing and institutional Start-up policy.

## **Committee members:**

A twelve-member committee is constituted with the following members to frame the Innovation and start up policy for students and faculty of the Institute.

Sr.	Name of Committee	Organization	Role
No.	Member		
1	Prof. Dr. Keshav N.	KKWIEE &R	Principal &
	Nandurkar		Chairperson
2	Prof. Dr. R. K. Munje	KKWIEE &R	IIC Convener
3	Dr. Mohan P. Thakre	KKWIEE &R	NISP Coordinator
4	Dr. Gaurav Daware	KKWIEE &R	IIC Coordinator
5	Dr. Sunil S. Morade	KKWIEE &R	IPR Coordinator
6	Dr. Sanjay Barhate	KKWIEE &R	AIRA Coordinator
7	Prof. Mangesh P.Panchbhai	KKWIEE &R	Startup Coordinator
8	Prof. Yogita Shewale	KKWIEE &R	SIH Coordinator
9	Mr. Tejas Kshatriya	Sr. Manager KPIT Technologies	External Member
10	Mr. Nikhil Panchal	Director, Panchal Engineers India Pvt, Limited.	External Member
11	Mr. Dharmesh Poriya	JP Enterprises	External Member
12	Mr. Dhananjay Bele	CEO, S.S. Enterprises,	External Member
		Chairman-Board of Past President, AIMA	

## Contents

Preamble: Overview of Functions of IIC

Mission

•

KKWIE	ER Innovation and Start up Policy 2020 for Students and Faculty	
1.	Strategies and Governance	
2.	Start-up enabling institutional infrastructure	
3.	Nurturing Innovation and Start-ups	8
4.	Product ownership rights for technologies developed in institute	10
5.	Organizational capacity, human resources and incentives	
6.	Creating Innovation Pipeline and Pathways for Entrepreneurs at Institute Level	12
7.	Norms for faculty start-ups	12
8.	Pedagogy and Learning Interventions for Entrepreneurship Development	
9.	Collaboration, Co-creation, Business Relationships and Knowledge Exchange	
10.	Entrepreneurial Impact Assessment	
11.	Glossary	15
12.	Acknowledgement	17
13.	Bibliography	17

### Abbreviation

F	
AICTE	All India Council for Technical Education
ARIIA	Atal Ranking of Institutions on Innovation Achievements
BIRAC	Biotechnology Industry Research Assistance Council
BMC	Business Model Canvas
CSIR	Council of Scientific & Industrial Research
CSR	Corporate Social Responsibility
CII	Confederation of Indian Industry
DST	Department of Science & Technology
DSIR	Department of Scientific and Industrial Research
HEI	Higher Educational Institutes
IIC	Institutions' Innovation Council
I&E	Innovation & Entrepreneurship
IPR	Intellectual property rights
NISP	National Innovation and Startup Policy
MIC	Ministry of Education's Innovation Cell
MSME	Ministry of Micro, Small & Medium Enterprises.
MHRD	Minister of Human Resource Development
MSDE	Ministry of Skill Development and Entrepreneurship.
NRDC	NATIONAL RESEARCH DEVELOPMENT CORPORATION
NSTEDB	National Science & Technology Entrepreneurship Development Board
SIH	Smart India Hackathon
TDB	Technology Development Board
TIFAC	Technology Information, Forecasting and Assessment Council

#### Preamble:

Ministry of Education (MoE), Govt. of India has established 'MoE's Innovation Cell (MIC)' to systematically foster the culture of Innovation amongst all Higher Education Institutions (HEIs). The primary mandate of MIC is to encourage, inspire and nurture young students by supporting them to work with new ideas and transform them into prototypes while they are informative years.

MIC has envisioned encouraging creation of 'Institution's Innovation Council (IICs)' across selected HEIs. A network of these IICs will be established to promote innovation in the Institution through multitudinous modes leading to an innovation promotion eco-system in the campuses: Major focus is i) To create a vibrant local innovation ecosystem for Start-up supporting mechanism in HEIs. ii) Prepare institute for Atal Ranking of Institutions on Innovation Achievements Framework. iii) Establish function ecosystem for scouting ideas and Pre-incubation of Ideas. iv) Develop better Cognitive Ability for Technology Students.

#### **Overview:**

IIC- is the umbrella body for nurturing and overseeing innovation and entrepreneurship at KKWIEER.IIC- seeks to nurture technology and knowledge-based ventures through their start-up phase by providing the necessary support to help entrepreneurs survive in the competitive market and reach a stage where they can scale-up their ventures further. The IIC-aims to build and share resources including space and infrastructure, access to business support services, mentoring, training programmers to enhance the skills of entrepreneurs and seed funds. The scope of support is broad-based, and covers technologies/IP developed wholly at the Institute or partly through collaborations elsewhere. IIC- is also particularly open to proposals with strong social and strategic impact for-

- Technology Business Incubation through training and awareness programs in Entrepreneurship
- Competitive events, lectures and workshops on soft skill development, case studies, plan competitions, innovators camps etc.
- Promoting Innovations in Individuals, Start-ups and MSMEs
- Technology Commercialization Program.

#### Functions

- To conduct various innovation and entrepreneurship-related activities prescribed by Central MIC in time bound fashion.
- Identify and reward innovations and share success stories.
- Organize periodic workshops/ seminars/ interactions with entrepreneurs, investors, professionals and create a mentor pool for student innovators.
- Network with peers and national entrepreneurship development organizations.
- Create an Institution's Innovation portal to highlight innovative projects carried out by institution's faculty and students.
- Organize Hackathons, idea competition, mini-challenges etc. with the involvement of industries.

#### The Ecosystem:

KKWIEER has established IIC Cell to promote research & innovation, to promote incubation, to promote entrepreneurship and skill development cell to inculcate skills to dropouts. The ecosystem includes research at the cutting edge of science and technology, incubations in the sectors such rural technologies, pollution, industrial solution and social impact problems. IIC supports all members of KKWIEER including staff, students, faculty, alumni and industry partners in creating successful business ventures that can translate benefits of technology and knowledge innovation to society at large.

#### Vision and Mission:

#### Vision:

To transform an engineering campus into Product and process Innovation Centre.

#### Mission:

To develop and convert the Ideas to working prototypes/products in multi-disciplinary domains by understanding the customer needs based on real problems and commercialize it through Industry/Academic Partnerships to develop entrepreneurial ecosystem in Rural area.

#### Objectives

#### Short Term Objectives

- To improve and enhance innovation, creative and design thinking among faculty, staff, and student community.
- To promote awareness regarding Innovation and Entrepreneurship (I&E) activities and NISP to stakeholders to reap the benefit of the policy.
- To nurture and help student groups to develop prototype of their innovative ideas.
- To provide pre-incubation and incubation facility to faculty/student/staff/alumni driven start-ups.
- To organize webinar, FDP, seminars and workshops for students, faculty and alumni, and promote innovation and entrepreneurship culture in the institute.
- Strengthen the innovation and entrepreneurial ecosystem in the institute by providing IPR awareness and protection facility, industry institute interaction.
- To produce graduates and post-graduate startups from the institute who can make change in the society through their innovation.
- To comply with the envisioned NISP framework and satisfy the key performance indicators set MIC.

#### Long Term Objectives

• Establish a state of art Incubation Centre and infrastructure to facilitate I&E activities in the institute.

- Provide platform for faculty, students, and alumni to develop innovative products with global recognition and generate business opportunities.
- Improve quality of research work among students related to I & E and to obtain IPR/patent for commercial transfer of technology.
- Strategic association with Department of Science and Technology (DST), Confederation of Indian Industry (CII), Ministry of Micro, Small and Medium Enterprises (MSME), Ambad Industries Manufacturer's Association (AIMA) and other premium institutions for mentoring and collaboration in building a good facility for I&E activities.
- To make the incubation infrastructure self-sufficient and self-sustainable

# KKWIEER Innovation and Start-up Policy 2020 for Students and Faculty

#### 1. Strategies and Governance

- a) Institute has adopted Innovation and Entrepreneurship promotion and development as a major strategy. To facilitate development of entrepreneurial ecosystem in the institute specific objectives and associated performance indicators are defined for assessment.
- b) Implementation of Vision of each cell achieved through Mission statements.
- c) Institution is supporting pre-incubation, incubation infrastructure and facilities through resource mobilization by following financial strategies
  - i. Allocating dedicated funding in annual budget for supporting innovation and startup related activities is part of institute financial strategy.
  - ii. The institute will be raising the funds from diverse sources by the strategy of bringing in external funding through government (state and central) such as DST, DBT, MoE, AICTE, TDB, TIFAC, DSIR, CSIR, BIRAC, NSTEDB, NRDC, Startup India, Invest India, MeitY, MSDE, MSME, etc. and non-government sources.
  - iii. The institute also moves towards private and corporate sectors to generate funds, under Corporate Social Responsibility (CSR) as per Section 135 of the Company Act 2013.
  - iv. Institute is also raising funds through sponsorships and donations by actively engaging alumni network for promoting Innovation & Entrepreneurship (I&E).
- d) For accelerating the decision-making organization structure has been devised with individual autonomy and ownership of initiatives at all levels.
- e) KKWIEER student and faculty startup Policy and action plan formulated at institute level, which is in line with the NISP-2019 along with well-defined short-term and long-term goals. Micro action plan is developed to accomplish the policy objectives.
- f) This strategy and policy is framed for the entire institute in order to integrate the entrepreneurial activities across various centres, cells, departments, faculties, within the institutes, thus breaking the silos.
- g) Development of entrepreneurship is not limited within the boundaries of the institution.
  - i. The institute is also giving an opportunity for regional start-ups, provision to extend facilities for outsiders and active involvement of the institute in defining strategic direction for local development which helps in developing entrepreneurship culture in its vicinity.
- h) Strategic international partnerships developed using bilateral and multilateral channels with international innovation clusters and other relevant organizations. Moreover, international exchange programs, internships, engaging the international faculties in

teaching and research also promoted.

i. Product to market strategy for start-ups was developed by the institute on case-tocase basis.

#### 2. Start-ups Enabling Institutional Infrastructure:

The institute is in process of established pre-incubation and incubation facilities for nurturing innovations and start-ups in the institute level. Incubation and Institution Innovation Council are organically interlinked. The goal of the effort by the IIC is link INNOVATION to ENTREPRISES to FINANCIAL SUCCESS.

- a. The institute created facilities within the campus for supporting pre-incubation (e.g.IICs as per the guidelines by MoE's Innovation Cell, EDC, IEDC, New-Gen IEDC, Innovation Cell, Start-up Cell, Student Clubs, etc.) and Incubation/ acceleration by mobilizing resources from internal and external sources.
- b. This Pre-Incubation/Incubation facility will be accessible 24x7 to students, staff and faculty of all disciplines and departments across the institution.
- c. Pre-incubation facilities in the campus are not a separately registered entity However; it will allow more freedom to Incubators in decision making with less administrative hassles for executing the programs related to innovation, IPR and Start-ups.
- d. The institute is also offering mentoring and other relevant services through Preincubation/Incubation units in-return for fees, equity sharing and (or) zero payment basis. The modalities regarding Equity Sharing in Start-ups supported through these units will depend upon the nature of services offered by these units and are elaborately explained in Section 3.
- e. The institute has established Institution's Innovation Councils (IICs) as per the guidelines of MoE's Innovation Cell and allocating appropriate budget for its activities.

#### 3. Nurturing Innovations and Start-ups:

- a. The institute established processes and mechanisms for easy creation and nurturing of Start ups/enterprises by students (UG, PG and PhD), staff (including temporary or project staff), faculty, alumni and potential start up applicants even from outside the institutions through IIC.
- b. Processes and mechanisms of the institute are follows:
- i. Incubation support: Offer access to pre-incubation and Incubation facility to start ups by students, staff and faculty for mutually acceptable time-frame. In case the institute doesn't have a dedicated facility/ infrastructure of its own, then it may reach out to coincubation facilities in other reputed institute/Maharashtra Innovation Society (MSiN) Govt. of Maharashtra in order to facilitate access to their students, staff and faculty.
- ii. Licensing of IPR from institute to start up: Ideally students and faculty members intending to initiate a start-up based on the technology developed or co-developed by them or the technology owned by the institute, are allowed to take a license on the said technology on easy term, either in terms of equity in the venture and/ or license fees and/ or royalty to obviate the early-stage financial burden.
- iii. Setting up a start-up (including social start-ups) and working part-time for the start-

their innovative projects and setting up start-ups including Social Start-ups or work as intern / part-time in start-ups while studying / working. Student Entrepreneurs will earn credits for working on innovative prototypes/Business Models. Institute defined clear guidelines to formalize this mechanism. Student inventors may also be allowed to opt Entrepreneurship Project major project, EPICS, internships in final year of study.

- c. Students who are under incubation, but are pursuing some entrepreneurial ventures while studying will be allowed to use their address in the institute to register their company with due permission from the institution.
- d. Students entrepreneurs are allowed to sit for the examination, even if their attendance is less than the minimum permissible percentage, with due permission from the institute.
- e. The institute will allow the students to take a semester/year break (or even more depending upon the decision of review committee constituted by the institute) to work on their start- ups and re-join academics to complete the course. Student entrepreneurs can also earn academic credits for their efforts while creating an enterprise. Institute will set up a review committee for review of start up by students, then approval from academic council, governing body and based on the progress made, it may consider giving appropriate credits for academics.
- f. The institute can explore provision of accommodation to the entrepreneurs within the campus for some period of time.
- g. Institute allow faculty and staff to take off for a semester / year (or even more depending upon the decision of review committee constituted by the institute) as sabbatical/ unpaid leave/ casual leave/ earned leave for working on start-ups and come back. Institution allows using of its resource to faculty/students/staff wishing to establish start up as a fulltime effort. The seniority and other academic benefits during such period may be preserved for such staff or faculty.
- h. Institute will facilitate the start-up activities/ technology development by allowing students/ faculty/ staff to use institute infrastructure and facilities, as per the choice of the potential entrepreneur in the following manners:
  - i. Short-term/ six-month/ one-year part-time entrepreneurship training.
  - ii. Mentorship support on regular basis.
  - iii. Facilitation in a variety of areas including technology development, ideation, creativity, design thinking, fund raising, financial management, cash-flow management, new venture planning, business development, product development, social entrepreneurship, product- costing, marketing, brand-development, human resource management as well as law and regulations impacting a business.
  - iv. Institute may also link the start-ups to other seed-fund providers/ angel funds/ venture funds or itself may set up seed-fund once the incubation activities mature.
  - v. License institute IPR as discussed in section 4 below.
- i. In return of the services and facilities, institute take 2% to 9.5% equity/ stake in the start-up/ company, based on brand used, faculty contribution, support provided and use

of institute's IPR. Other factors for consideration should be space, infrastructure, mentorship support, seed- funds, support for accounts, legal, patents etc.

- j. 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
- k. The institute also provides services based on mixture of equity, fee-based and/ or zero payment model. So, a start-up may choose to avail only the support, not seed funding, by the institute on rental basis.
- 1. Institute extends this start-up facility to alumni of the institute as well as outsiders.
- m. Participation in start-up related activities considered as a legitimate activity of faculty in addition to teaching, R&D projects, industrial consultancy and management duties and considered while evaluating the annual performance of the faculty. Every faculty encouraged to mentor at least one start-up.
- n. Product development and commercialization as well as participating and nurturing of start- ups added to a bucket of faculty-duties and each faculty would choose a mix and match of these activities (in addition to minimum required teaching and guidance) and then respective faculty are evaluated accordingly for their performance and promotion.
- o. Institute also update/change/revise policy guidelines according to changes in the rules and regulations of MoE after constituting the committee.
- 4. Product Ownership Rights of all Technologies Developed at Institute:
  - a) When institute 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.
    - i. Inventors and institute could together license the product / IPR to any commercial organisation, with inventors having the primary 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
  - ii. An institute not to hold the equity as per the current statute, so SPV may be requested to hold equity on their behalf.
  - iii. If one or more of the inventors wish to incubate a company and license the product to this company, the royalties would be 1 to 2%, of sale price. 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.
  - 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 curriculum by

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 the technology the way they deem fit.

- c) If there is a dispute in ownership, a minimum five-member committee consisting of two faculty members (having developed sufficient IPR and translated to commercialization), two of the institute's alumni/ industry experts (having experience in technology commercialization) and one legal advisor with experience in IPR, will examine the issue after meeting the inventors and help them settle this, hopefully to everybody's satisfaction. Institute can use alumni/ faculty of other institutes as members, if they cannot find sufficiently experienced alumni /faculty of their own.
- d) Institute Innovation Council (IIC) facilitates for providing services to faculty, staff and students. IIC will not say on how the invention is carried out, how it is patented or how it is to be licensed. If institute is to pay for patent filing, a committee constituting of faculty who have experience and excelled in technology translation can examine whether the IPR is worth patenting. If inventors are using their own funds or non-institute funds, then they alone should have a say in patenting.
- e) IIC of the KKWIEER is also the nodal body to frame and monitor agreements regarding policy and fair use between KKWIEER and incubated companies.
- f) The institute promotes interdisciplinary research publication and patents from startup and entrepreneurship.
- g) The institute promotes interdisciplinary research publication and patents from startup and entrepreneurship.

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

- a) Faculty members at KKWIEER- are continuously engaged in knowledge generation and dissemination. A large number of R&D activities are being carried out by faculty members and students in several cutting-edge science and technology & product development areas. However, most of these research outcomes do not get translated into commercial products, benefiting the society in general, due to several reasons including lack of interest of the industry in commercializing new and futuristic technologies. KKWIEER R & D cell is successful in commercialization of technology into useful products. Towards this end, KKWIEER-, in line with the best practices of other institutes of higher learning across the world, proposes to encourage interested faculty members to open companies, be on the board of such companies in capacity of a Director, Chairman or any such role. It is expected that faculty members will make all efforts to balance their academic responsibilities while assuming the above role
- i. Some of the relevant faculty members with prior exposure and interest deputed for training to promote I&E.
- ii. To achieve better engagement of staff in entrepreneurial activities, institutional policy on career development of staff developed with constant up skilling.

- b) Faculty and departments of the institute will work in coherence and cross-departmental linkages to strengthen through shared faculty, cross-faculty teaching and research in order to gain maximum utilization of internal resources and knowledge.
- c) 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.
- d) Faculty and staff of the institute are encouraged to do courses on innovation, entrepreneurship management and venture development.
- e) In order to attract and retain right people, institute developed academic and nonacademic incentives and reward mechanisms for all staff and stakeholders that actively contribute and support entrepreneurship agenda and activities.
- i. The institute supports office and lab space for entrepreneurial activities, reduced work-loads, awards, trainings, etc. to the staff.
- ii. A performance matrix developed and used for evaluation of annual performance.
- iii. It is expected that incentives to student/faculty will bolster institute's efforts to create Innovation/IP culture. Therefore, institute shall in principle promote faculty/students' in filing IP by extending monetary support.
- f) To answer the doubts and queries of the innovators and enlisting the facilities available at the institute, a ready reckoner of Innovation Tool Kit, this will be kept on the IIC homepage of institute's website.

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

- a) To ensure exposure of maximum students to innovation and pre incubation activities at their early stage and to support the pathway from ideation to innovation to market, the following mechanisms are devised at institution level.
- i. Spreading awareness among students, faculty and staff about the value of entrepreneurship and its role in career development or employability should be a part of the institutional entrepreneurial agenda through various workshops, conferences and by introducing innovation/IPR courses as part of curriculum.
- ii. The institute will add an EPICS course in the curriculum to solve the problems of the society and consumers. Entrepreneurs will innovate with focus on the market niche.
- iii. The institute encourage the students 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 through various facilities such as pre-incubation and incubation facilities of the institute. Initiatives like idea and innovation competitions, hackathons, workshops, boot camps, seminars, conferences, exhibitions, mentoring by academic and industry personnel, throwing real life challenges, awards and recognition routinely organized.

- iv. Institute encourages integration of education activities with enterprise-related activities to prepare the students for creating the start up through the education.
  - b) Institute link between student start-ups and companies with wider entrepreneurial ecosystem and by providing support to students who show potential, in pre-start-up phase. It 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.

#### 7. Norms for Faculty Start-ups:

- a) The institute created norms for faculty to do start-ups for better coordination of the entrepreneurial activities.
- i. Role of faculty varies from being an owner/ direct promoter, mentor, consultant or as on-board member of the start-up.
- ii. Institute work on developing a policy on 'conflict of interests' to ensure that the regular duties of the faculty don't suffer owing to his/her involvement in the start-up activities.
- iii. Faculty start-up may consist of faculty members alone or with students or with faculty of other institutes or with alumni or with other entrepreneurs.
  - b) Faculty clearly separated and distinguished on-going research at the institute from the work conducted at the start-up/ company.
  - c) In case of selection of a faculty start up 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 review committee constituted by the institute) permitted to the faculty based on the committee recommendation.
  - d) Faculty must not accept gifts from the start-up.
  - e) Human subject related research in start-up should get clearance from ethics committee of the institution.

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

- a) The institute has adopted diversified approach to produce desirable learning outcomes, which includes cross disciplinary learning using mentors, labs, case studies, active learning technics & games, etc. in place of traditional lecture-based delivery.
- i. The Institute has created student clubs/ bodies/ departments for organizing competitions, boot camps, workshops, awards, etc. These bodies involved in institutional strategy planning to ensure enhancement of the student's thinking and responding ability.
- ii. KKWIEER recommends the committee to give an annual 'INNOVATION &

ENTREPRENEURSHIP AWARD' for staff and students during annual day of the college to recognize outstanding ideas, successful enterprises and contributors for promoting innovation and enterprises eco system within the institute.

- iii. For creating awareness among the students, the activities of KKWIEER include case studies on business failure and real-life experience reports by start-ups.
- iv. 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 is a part of institute's philosophy and culture.
- v. The KKWIEER identifies Innovation champions from within the students/ faculty/ staff for each department/ stream of study and nominating for in-house training to students and faculty for developing the ecosystem culture in the campus.
- b) The KKWIEER imparted Entrepreneurship education to students at curricular/ cocurricular/ extracurricular level through elective/ short term or long-term courses on innovation, entrepreneurship and venture development.
- i. KKWIEER collaborates with external incubation centers and industries for integration of expertise of the external stakeholders in the entrepreneurship education.
- ii. In the beginning of every academic session, institute conduct an induction program about the importance of I&E so that freshly inducted students are made aware about the entrepreneurial agenda of the institute and available support systems. Curriculum of KKWIEER will be continuously updated based on entrepreneurship research outcomes.
- iii. Student innovators, start-up experts are engaged in the dialogue process while developing the strategy so that it becomes need based pedagogical changes.
- iv. KKWIEER made pedagogical changes to ensure that maximum number of student projects and innovations are based around real life challenges. Learning interventions developed by the institute for inculcating entrepreneurial culture are constantly reviewed and updated.

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

- a) Institute identifies potential partners, resource organizations, micro, small and medium-sized enterprises (MSMEs), social enterprises, schools, alumni, professional bodies and entrepreneurs to support entrepreneurship.
- i. To encourage co-creation, bi-directional flow/ exchange of knowledge and people ensured between institutes such as incubators, science parks, etc.
- ii. Institute organizes networking events for better engagement of collaborators and opens up the opportunities for staff, faculty and students to allow constant flow of ideas and knowledge through meetings, workshops, space for collaboration, lectures, etc. through IIC of the institute to create successful ventures.

- b) The institute managing the relationships with external stakeholders including private industries through pre-incubation and incubation facilities of the institute. From which knowledge exchange through collaboration and partnership made as a part of institutional policy.
- i. Through formal and informal mechanisms such as internships, teaching and research exchange programmes, clubs, social gatherings, etc., faculty, staff and students of the institute given the opportunities to connect with their external environment.
- ii. IIC of the institute which is single Point of Contact (SPOC) mechanism created in the institute for the students, faculty, collaborators, partners and other stakeholders to ensure access to information.

#### 10. Entrepreneurial Impact Assessment:

- a) Impact assessment of institute's entrepreneurial initiatives such as pre-incubation, incubation, entrepreneurship education should be performed regularly using well defined evaluation parameters.
- i. Monitoring and evaluation of knowledge exchange initiatives, engagement of all departments and faculty in the entrepreneurial teaching and learning should assess.
- ii. Number of start-ups created, support system provided at the institutional level and satisfaction of participants, new business relationships created by the institute should be recorded and used for impact assessment.
- iii. Impact should also measure 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.
  - b) The impact assessment should go hand in hand by circulating to the all departments existing in the campus. The information on impact of the activities should be actively used while developing and reviewing the entrepreneurial strategy.
  - c) Impact assessment for measuring the success is in terms of sustainable social, financial and technological impact in the market. COMMERCIAL success is the ONLY measure in long run.

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

## Glossary

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.
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.
Financial Management is the application of general principles of management to the financial possessions of an enterprise.
Experiential learning is the process of learning through experience, and is more specifically defined as learning through reflection on doing.
Entrepreneurship education seeks to provide students with the education knowledge, skills and motivation to encourage entrepreneurial success in a variety of settings.
An Individual who has an entrepreneurial mindset and wants to make Individuals his/her idea successful.
A culture/ society that enhance the exhibition of the attributes, values, beliefs and behaviors that are related to entrepreneurs.
Cross-disciplinary practices refer to teaching, learning, and scholarship activities that cut across disciplinary boundaries.
A self-regulating business model Responsibility that helps a company is socially accountable – to itself, its stakeholders, and the public.
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 institutions refer to well-known technology, management and R&D institutions working for developing startups and contributing towards developing a favorable 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.
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)

<b>D</b> 1	
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.
Start-up	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 Incubator startup businesses with all the necessary resources/support that the startup needs to evolve and grow into a mature business.
Technology commercializati on	Technology commercialization is the process of transitioning technologies from Commercialization 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 compensation.

Technology management	Technology management is the integrated planning, design, optimization, operation and control of technological products, processes and services.
Venture CapitalIt is the most well-known form of start- up funding. Venture (VCs) typically reserve additional capital for follow-up rounds. Another huge value that VCs provide is access to their	
	for employees or clients for products or services of the start-up.

#### Acknowledgements:

NISP Coordinator Special thanks to Prof. (Dr.) K. N. Nandurkar, Principal, K. K. Wagh IEE & R, Nashik, and Dr. Sunil Kute, Dean (Academics), K. K. Wagh IEE & R. Nashik, for their initiative and providing guidance throughout the process.

NISP expresses its sincere thanks to Dr. R. K. Munje (IIC Convener), Dr. Gaurav Daware, Dr. Sunil S. Morade, Dr. Sanjay Barhate, Prof. Mangesh P. Panchbhai, and Prof. Yogita Shewale, of KKWIEE &R, Nashik.

NISP expresses its Special thanks to External Members that are Mr. Tejas Kshatriya, Sr. Manager KPIT Technologies, Mr. Dharmesh Poriya, JP Enterprises, Mr. Dhananjay Bele, Mentor AIMA and Mr. Nikhil Panchal Indo American Chamber of Commerce and AIMA.

NISP want to thank all the members of committee on 'KKWIEER Innovation and Start-up Policy 2020' for students and faculty.

Dean R & D for his valuable insights and recommendations to enable formulation of these guidelines.

NISP expresses its sincere thanks to University Grants Commission and All India Council of Technical Education, for giving a guiding framework required for formation of this policy. NISP sincerely appreciate the members of drafting team who worked for creating this policy and gave their inputs throughout its preparation.

#### **Bibliography:**

[1] NISP -2020

[2] Maharashtra Govt. Start-up Policy document

## K. K. Wagh Institute of Engineering Education and Research Innovation and Start-up policy-2020 for Students and Faculty

13/07/2022

## **NISP Policy:**

#### Overview

With a goal and a mission to seek and improve the business skills of students and faculty members, K.K.Wagh Institute of Engineering Education and Research, Nashik has supported important R&D and entrepreneurship activities in past. To promote and improve institute R&D and entrepreneurship activities, National Innovation and Start-up Policy (NISP) committee has been constituted. The policies are established related to the committee membership, terms, and recommendations included by the NISP Committee policy.

#### Aim:

To promote and improve the quality of research and entrepreneurship activities in the institute

#### Scope:

Applicable for all UG, PG and Ph.D students of the institute

#### Responsibilities

The NISP Committee will perform the following responsibilities with the full participation of all the departments of the institute:

- Identifying thrust research areas in order to discover the business gap
- Develop and revise the NISP policy over time in accordance with the government directions/industrial scenario.
- Motivate and support students and staff members to launch businesses in partnership with various organizations/industries.
- Review research proposals drafted by students and faculty members prior advancing with any business.
- To mentor the startup company prior to its foundation.
- Identifying physical, financial, and human resources to carry out company activities
- Plan, monitor, and evaluate the business activity after it is established (if needed).

#### Terms

- The members' terms are renewed after three years.
- The HOD and Principal shall suggest and recommend candidates for the NISP Committee.
- The declaration for the NISP Committee's formation will be made by the Principal.

#### Meetings

- The committee must meet at least once every three months.
- Meetings will be held in the Faraday Hall, department of Electrical engineering, KKWIEER, Nashik.

#### Office bearers of the Body

The NISP Committee will have a Chairperson, nominated faculty members, and industry representatives as its members. The Principal of KKWIEER will serve as the chairperson.

#### **Duties of the Officers**

#### a) Chairperson

- The Chairperson shall have the authority to call meetings of the Committee members.
- The Chairperson will define the agenda of the meeting in concern with the Dean, R & D and coordinates
- The Chairperson shall serve as the executive head of the NISP Committee and will preside over sessions of the Committee.
- The Chairperson is responsible for providing the committee with the pertinent information and data it needs to carry out its duties.
- The Chairperson is responsible to update the committee on any actions taken in response to committee's recommendations.

#### b) Member Coordinator

- The member secretary will be responsible for keeping the records of all meetings and distribute them to all members.
- The member coordinator will ensure that the duties and responsibilities of the committee members are carried out efficiently and effectively.

X Nau Car rof. (Dr.) K. N. Nandurkar Principal K. K. Wagh IEE & R, Nashik EDUCATION