

Innovation and Startup Policy 2021-22

Velammal College of Engineering and Technology (Autonomous)

Madurai – 625 009



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Preamble

In November 2016, All India Council of Technical Education (AICTE) released a Startup Policy document for AICTE approved institutions, to address the need of inculcation of innovation and entrepreneurial culture in higher education institutions (HEIs). The policy primarily focused on guiding the AICTE approved institutions in implementing 'Startup Action Plan' of Government of India. Subsequent to the release of the Startup policy by AICTE and further discussion with the education institutions, a need was felt for a more elaborate and comprehensive policy guiding document, which could be applicable for all the HEIs in India. This leads to formulation of the 'National Innovation and Startup Policy (NISP)'.

The Institution Innovation and Startup Policy is catalyst in creating innovation and entrepreneurial ecosystem in our institute. This will facilitate the faculty, research scholars and students to give shape to their random ideas into practical and sustainable solutions to various technical and societal problems. This Institution Innovation and Startup Policy is aligned with National Innovation and Startup Policy (NISP) considering the parameters highlighted in ARIIA framework. This policy is subject to review and make amendments whenever necessary with prior recommendation by the Head of the Institute, Principal, Velammal College of Engineering of Technology. The policy is drafted by the 'Institution Innovation and Startup Policy Formulation Committee' setup on 17th September 2022 with the head of the HEI; the Principal, Velammal College of Engineering and Technology.

Vision

To provide an entrepreneurial ecosystem to develop innovation and entrepreneurial culture and opt it as a career option.

Mission

To identify, promote and support student innovators to formulate self-sustaining business models. Supporting pre-incubation, incubation infrastructure and facilities to promote and develop entrepreneurial activities.

Objectives

1. To develop a comprehensive innovation and entrepreneurial strategy and policy document
2. To implement innovation and entrepreneurial strategy and policy
3. To describe evaluation parameters of pre-incubation, incubation, entrepreneurship education of VCET
4. To develop the strategy to raise funds for supporting incubators
5. To promote importance of innovation and entrepreneurship by conducting various institutional programs such as conferences, workshops, etc.

1. Strategies and Governance

- a. Developing an innovation, startup and entrepreneurial ecosystem is one of the priorities of VCET enabling the faculty and students to realize their innovative technical potentialities.
- b. The Vision and Mission statements and the Objectives of the institute set a framework for the implementation of the innovation and startup policy emphasizing achievement of the set goals rather than coercive control system. The management of the institute ensures a committed support in the implementation of the policy.
- c. The administration authorities of the institute give importance on creating an academic ambience to develop innovative and entrepreneurial mindset among the faculty and students.
- d. The institution with academic autonomy; the Board of Studies of all branches of engineering incorporate the courses educating students (both in Undergraduate and Postgraduate courses) to acquire skills and knowledge on creative thinking, innovation and entrepreneurship, and business policies.
- e. At institution level, resource mobilization plan will be made to support the innovation and incubation infrastructure and other related facilities in order to achieve a sustainable entrepreneurial agenda. An effort will be made to search for diverse external sources of funding of students' projects and innovative activities which involve government agencies and organizations (such as DST, KSCST, DBT, MSME, Startup India, Invest India, MSDE, etc.) and non-government sources (NGOs, Venture Capitalist, etc.)

- f. The importance of Innovation, Intellectual Property Rights, and Entrepreneurship has always been highlighted in organizing technical events as well as fests, competitions as well as exhibitions, workshops, conferences, seminars and such other events.
- g. The necessary action plan will be worked out to promote entrepreneurship culture through industry-institute interaction, public participation in internships, research, higher education, technical know-how and faculty who could directly or indirectly help in promoting innovation and entrepreneurship culture.

2. Startups Enabling Institutional Infrastructure

- a. The faculty and students are encouraged to pursue research and innovation. The institution manages to provide the necessary support and guidance to the faculty and students in applying for IP protection (patent, design patent, trademark, copyrights, etc.).
- b. The students are encouraged to actively involve and participate in various institution level and department level research and innovation oriented technical clubs managed by the student teams under the guidance of a designated staff (teaching or support staff or an external expert) such as Robotics Club, Mobile App club, etc.
- c. Entrepreneurship Development Cell (EDC) organizes the entrepreneurship awareness and training programmes for the students inviting the resource persons from MSME Centres, Ministry of MSME, Government of India and experts from the industries, start-ups, incubation centres and academia. It also organizes job and skill oriented training programmes to the rural youth and women and students from various technical institutes.
- d. VCET started Centre for Innovation and Product Development in 2011. We need to set up Pre-incubation center which will be accessible to students, staff and faculty of all disciplines and departments/ institutes across VCET 24X7.
- e. VCET can offer mentoring and other relevant services through Pre-incubation/Incubation units in-return for fees, equity sharing and (or) zero payment basis.

3. Nurturing Innovations and Startups

- a. For easy creation and nurturing of startups/enterprises by students (UG, PG and Ph.D.), staff, faculty, alumni and potential startup applicants even from outside VCET will ensure to achieve the following:
 - i. Incubation support: Offer access to pre-incubation & incubation facility to startups by students, staff and faculty for mutually acceptable time-frame.
 - ii. Licensing of IPR from institute to start up support: Ideally students and faculty members intending to initiate a startup based on the technology developed or co-developed by them or the technology owned by the VCET, should be 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.
- b. Student inventors may also be allowed to opt for startup in place of their mini projects/major projects, seminars, summer trainings etc. The area in which student wants to initiate a startup may be interdisciplinary or multidisciplinary. However, the student must describe how they will separate and clearly distinguish their ongoing research activities as a student from the work being conducted at the start up. Students who are under incubation, but are pursuing some entrepreneurial ventures while studying should be allowed to use their address in the institute to register their company with due permission from the institution.
- c. Student entrepreneurs should be allowed to sit for the examination, by providing on-duty at that time of involving entrepreneurial activity with due permission from the institute.
- d. VCET should allow their 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 startups and re-join academics to complete the course. Student entrepreneurs may earn academic credits for their efforts while creating an enterprise. Institute should set up a review committee for the assessment of the startups by the students, and based on the progress made, it may consider giving appropriate credits for academics.
- e. The institute should explore provision of accommodation to the entrepreneurs within the campus for some period of time.
- f. The institute should 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 startups. Institution should consider allowing use of its resources to faculty/students/staff wishing to establish a start up as a fulltime effort. The seniority and other academic benefits during such period may be preserved for such staff or faculty.

- g. Entrepreneurship related course “Design Thinking and Product Development” is part of Undergraduate course for the students. We can also start PG Diploma (Innovation, entrepreneurship and venture development) program where one can get degree while incubating and nurturing a startup company. AICTE has already issued guidelines for a similar program.
- h. VCET will facilitate the startup 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 startups to other seed-fund providers/ angel funds/ venture funds or itself set up seed-fund once the incubation activities mature.
 - v. License for products developed at VCET /institute IPR is as discussed in section 4 below.
- i. VCET could extend this startup facility to alumni of the institute as well as outsiders.
- j. 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. Every competent faculty may be encouraged to mentor at least one startup
- k. Product development and commercialization as well as participating and nurturing of startups would now be 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.
- l. VCET should ensure that at no stage any liability accrue to it because of any activity of a startup.

m. Pre-incubation facility - In the pre-incubation planning phase, the following activities are to be performed:

1. Identification of problems: Students will visit various sectors like villages, hospitals, urban areas etc., and will visualize practical problems that are associated with those sectors. Various other field visits may occur for identification of real life problems.
2. Idea generation: Depending upon the problems, students have to come up with a potential solution for a specific problem. That idea should be novel, original and be able to solve a real-life problem effectively.
3. Collection of ideas: Students have to submit the ideas in proper format to the authority in online mode. The ideas may be considered to take part in Toycathon, Smart India Hackathon and National Innovation Contest conducted by MoE.
4. Screening of ideas: Selected applicant will be invited to give a presentation to evaluation committee. Based on the potency of their idea, they will be shortlisted.
5. Supporting, mentoring and strengthening of ideas: The shortlisted ideas will be discussed in workshops/webinars/lecture in order to improve their ideas to solve problems and know various aspects of startups. Each idea may be under the supervision of a mentor from KIIT DU on whose recommendation; ideas may go to incubation stage.
6. Business plan preparation: Workshop will be conducted on 'business plan development' for awareness of students by inviting renowned expert from industry or academia. Selected students are required to present their business plan with market analysis.
7. Prototype development: Finally, students have to prepare a prototype for their ideas. The prototype may be prepared under direct supervision of mentor assigned.
8. Basic idea testing: Student idea needs to be tested before applying for incubation. Academic Institutions must ensure pre-incubation qualification of a student's business idea.
9. Promoters' details: Relevant details of promoters are required to be validated before allowing startups to enter the incubation process.
10. Registration of startup: The student startup needs to be registered under a form of business entity like Partnership Firm, LLP, Private Limited Company.

4. Product Ownership Rights for Technologies Developed at VCET

- a. When VCET 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 VCET.
 - i. Inventors and VCET could together license the product/IPR to any commercial organization, with inventors having the primary say. Licence fees could be a mix of
 - Upfront fees or one-time technology transfer fees
 - Royalty as a percentage of sale-price
 - Shares in the company licensing the product.
 - ii. 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. For a pure software product licensing, there may be a revenue sharing to be mutually decided between the VCET and the incubated company.
- b. On the other hand, if product/IPR is developed by innovators not using any institute facilities, not during the 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 VCET's alumni/ industry experts (having experience in technology commercialization) and a legal advisor with experience in IPR, will examine the issue after meeting the inventors and help them settle this. Institute can use alumni/faculty of other institutes as members, if they cannot find sufficiently experienced alumni/faculty of their own.
- d. VCET IPR cell or incubation center will only be a coordinator and facilitator for providing services to faculty, staff and students. They will have no 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, they can have a committee which can examine whether the IPR is worth patenting. The committee should consist of faculty who have experience and excelled in technology translation. If inventors are using their own funds or non institute funds, then they alone should have a say in patenting.

- e. VCET's decision-making body with respect to incubation/IPR/ technology-licensing will consist of faculty and experts who have excelled in technology translation. Other faculty in the department/institute will have no say, including heads of department, deans or registrars.
- f. Interdisciplinary research and publication on startup and entrepreneurship should be promoted

5. Organizational Capacity, Human Resources and Incentives

- a. VCET will recruit staff with a strong sense of innovation and entrepreneurial/industrial exposure. This will help in fostering the innovation and entrepreneurial culture.
 - i. Some of the relevant faculty members with prior experience and interest should be deputed for training to promote innovation and entrepreneurship.
 - ii. To achieve better engagement of staff in entrepreneurial activities, institutional policy on career development of staff should be developed.
 - iii. Faculty of the VCET should work in coherence to strengthen the cross-departmental linkages through Interdisciplinary teaching and research in order to gain maximum utilization of internal resources and knowledge.
- b. Periodically some external experts such as guest lecturers or alumni can be engaged for strategic advice and bringing in skills which are not available internally.
- c. Faculty and staff should be encouraged to do courses on innovation, entrepreneurship management and venture development.
- d. In order to attract and retain right people, institute should develop academic as well as non-academic incentives and reward mechanisms for all staff and stakeholders that actively contribute and support entrepreneurship agenda and activities.
 - i. The reward system for the staff may include sabbaticals, office and lab space for entrepreneurial activities, reduced teaching loads, awards, trainings, etc
 - ii. The recognition of the stakeholders may include offering use of facilities and services, strategy for shared risk, as guest teachers, fellowships, associates, etc.
 - iii. A performance matrix should be developed and used for evaluation of annual performance.

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, mechanisms should be 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.
 - ii. Students/staff should be taught that innovation (technology, process or business innovation) is a mechanism to solve the problems of the consumers. Entrepreneurs should innovate with focus on the market niche.
 - iii. 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 regularly organized.
 - iv. To prepare the students for creating the startup through the education, integration of education activities with enterprise-related activities should be done.
- b. VCET 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.
- c. VCET's IIC 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.

- d. For strengthening the innovation funnel of the institute, access to financing must be opened for the potential entrepreneurs.
 - i. Networking events must be organized to create a platform for the budding entrepreneurs to meet investors and pitch their ideas.
 - ii. Provide business incubation facilities: premises at subsidized cost. Laboratories, research facilities, IT services, training, mentoring, etc. should be accessible to the new startups.
 - iii. 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.
- e. VCET must develop a ready reckoner of Innovation Tool Kit, which must be kept on the homepage on VCET's website to answer the doubts and queries of the innovators and enlisting the facilities available at the institute.

7. Norms for Faculty Startups

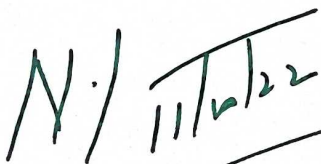
- a. For better coordination of the entrepreneurial activities, norms for faculty to do startups should be created by the VCET. Only those technologies should be taken for faculty startups which originate from within the same institute.
 - i. Role of faculty may vary from being an owner/ direct promoter, mentor, consultant or as on-board member of the startup.
 - ii. Institutes should 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 startup activities.
 - iii. Faculty startup may consist of faculty members alone or with students or with faculty of other institutes or with alumni or with other entrepreneurs.
- b. In case the faculty/staff hold the executive or managerial position for more than three months in a startup, they will go on sabbatical/ leave without pay/ utilize existing leave.

- c. Faculty must clearly separate and distinguish on-going research at the institute from the work conducted at the startup/company.
- d. 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) may be permitted to the faculty.
- e. Faculty should not expect any personal favor from the startup.
- f. Faculty must not involve research staff or other staff of institute in activities at the startup and vice-versa.
- g. Human subject related research in startup should get clearance from ethics committee of the institution.


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Dr. P. ALLU
PRINCIPAL

Velammal College Of Engineering & Technology
Madurai - 625 009


11/10/22

Dr. N. SURESH KUMAR
SENIOR PRINCIPAL