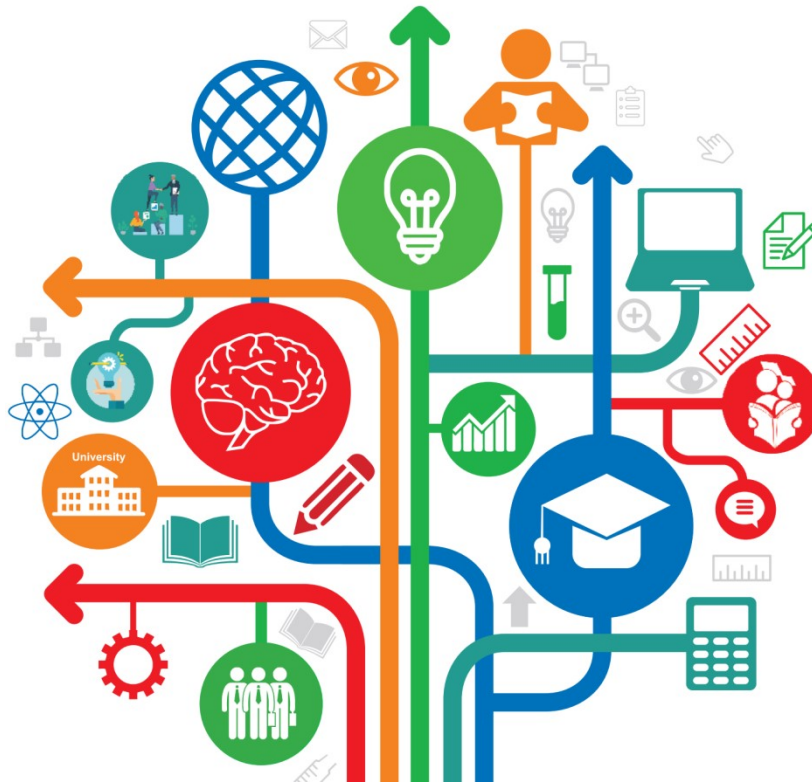# Innovation and Startup Policy 2020 for Students and Faculty of Government College of Engineering and Ceramic Technology

Government College of Engineering and Ceramic Technology

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Government of West Bengal

Contents

Innovation and Startup Policy 2020 for Students and Faculty of GCECT

1. Strategies and Governance

a) Entrepreneurship promotion and development is one of the major dimensions of GCECT, Kolkata. GCECT has developed and implemented I & E strategy and policy for the entire institute in order to integrate the entrepreneurial activities across various departments, faculties, within the institutes, thus breaking the silos. To facilitate development of an entrepreneurial ecosystem in the institute, specific objectives and associated performance indicators have been defined for assessment.

b) A sustainable financial strategy has been defined in order to reduce the organizational constraints to work on the entrepreneurial agenda. Investment in entrepreneurial activities is a part of the institutional financial strategy. Minimum 1% fund of the total annual budget of the institution is allocated for funding and supporting innovation and startups related activities through creation of separate 'Innovation fund'.

c) The institute encourages its stakeholders to raise funds from diverse sources like DST, DBT, MHRD, AICTE, TDB, TIFAC, DSIR, CSIR, BIRAC, NSTEDB, NRDC, Startup India, Invest India, MeitY, MSDE, MSME, etc. to reduce dependency on the public funding.

d) Institute appeals to raise funding through sponsorships and donations from its alumni network for promoting Innovation & Entrepreneurship.

e) For expediting the decision making, GCECT has no hierarchical barriers. Individual autonomy and ownership of initiatives are always promoted in the campus.

f) GCECT organises conferences, workshops, seminars to promote and highlight the importance of innovation and entrepreneurial agenda.

g) GCECT affirms that on a case to case basis, product to market strategy for startups will be developed by the institute.

h) GCECT believes that development of entrepreneurship culture should not be limited within the boundaries of the Institution. Institute will provide opportunities for regional startups, provision to extend facilities for outsiders and active involvement of the institute in defining strategic direction for local development. Institute is always open to promote international partnerships and collaboration with other relevant organizations.

2. Startups Enabling Institutional Infrastructure

GCECT has created a pre-incubation unit for nurturing innovations and startups in the institute. Incubation and Innovation are organically interlinked in the campus. Without innovation, new enterprises are unlikely to succeed. The goal of the effort is to link INNOVATION to ENTREPRISES to FINANCIAL SUCCESS.

a) GCECT has created facilities for supporting pre-incubation.
b) The Pre-Incubation facility is accessible 24×7 to students, staff and faculty of all disciplines and departments across the institution.
c) GCECT offers mentoring and other relevant services through the Pre-incubation unit on zero payment basis.

3. Nurturing Innovations and Start ups

a) GCECT has established processes and mechanisms for easy creation and nurturing of Start ups/enterprises by students (UG, PG, Ph.D.), staff (including temporary or project staff), faculty, alumni and potential start up applicants even from outside the institutions.
b) While defining their processes, GCECT will ensure to achieve following:
   i. Incubation support: Offer access to pre-incubation facility to start ups by students, staff and faculty for mutually acceptable time-frame.
   ii. Will allow 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, should be allowed to take a license on the said technology on easy term.
   iii. Will allow setting up a start up (including social start ups) and working part-time for the start ups while studying / working: GCECT allows their students / staff to work on their innovative projects and setting up start ups (including Social Start ups) or work as intern / part-time in start ups while studying / working. The area in which a student wants to initiate a start up may be interdisciplinary or multidisciplinary.
c) 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.
d) Allow faculty and staff to take off for a semester/ year (or even more depending upon the decision of the review committee constituted by the institute) as sabbatical/ unpaid leave/ casual leave/ earned leave for working on startups and come back. Institution should consider allowing use of its resources to faculty/students/staff wishing to establish start up as a full time effort. The seniority and other academic benefits during such a period may be preserved for such staff or faculty.
e) Institute 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. GCECT may also link the startups to other seed-fund providers/ angel funds/ venture funds.

  v. License institute IPR as discussed in section 4 below.

f) 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. In case the faculty/ staff holds the executive or managerial position for more than three months in a startup, then they will go on sabbatical/ leave without pay/ earned leave.

g) GCECT could extend this startup facility to alumni of the institute as well as outsiders.

h) Participation in start up 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 will be considered while evaluating the annual performance of the faculty. Every faculty is encouraged to mentor at least one startup.

i) 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.

j) GCECT ensures that at no stage any liability accrues to it because of any activity of any startup.

k) Where a student/ faculty startup policy is pre-existing in an institute, then the institute may consider modifying their policy in spirit of these guidelines.

4. Product Ownership Rights for 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
    3) 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 4%, unless it is pure software product. If it is shares in the company, shares will again be 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 membered committee consisting of two faculty members (having developed sufficient IPR and translated to commercialisation), two of the institute's alumni/ industry experts (having experience in technology commercialisation) 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 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) All institute'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, heads of institutes, or registrars.

f) Interdisciplinary research and publication on startup and entrepreneurship is promoted by GCECT.

5. Organizational Capacity, Human Resources and Incentives

a) Institute will engage staff that have a strong innovation and entrepreneurial/ industrial experience, behaviour and attitude. This will help in fostering the I&E culture.Some of the relevant faculty members with prior exposure and interest would be deputed for training to promote I&E.

b) Faculty and departments of the institutes work in coherence and cross-departmental linkages are strengthened 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 or alumni are engaged for strategic advice and bringing in skills which are not available internally.

d) Faculty and staff are encouraged to do courses on innovation, entrepreneurship management and venture development.

e) GCECT provides academic and non-academic incentives for all staff and stakeholders those actively contribute and support entrepreneurship agenda and activities.

    i. The incentive 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,, as guest teachers, fellowships, associateships, etc.

    iii. GCECT would give preference while evaluating annual performance of actively involved stakeholders.

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 have been 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 is a part of the institutional entrepreneurial agenda.

    ii. Students/ staff are 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.

    iii. Students are encouraged to develop entrepreneurial mindset through experiential learningby 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 are routinely organized.

    iv. To prepare the students for creating the start up through the education, integration of education activities with enterprise-related activities are done.

     v.   Networking events are organized to create a platform for the budding entrepreneurs to meet investors and pitch their ideas.

b) The institute would link their start ups 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) GCECT has established the Institution's Innovation Councils (IICs) as per the guidelines of MHRD's Innovation Cell and has allocated an appropriate budget for its activities. IICs would guide in conducting various activities related to innovation, startup and entrepreneurship development. Collective and concentrated efforts are 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 is open for the potential entrepreneurs provided the proposal is passed through a review meeting done by the IIC members. A culture needs to be promoted to understand that money is not FREE. The entrepreneur must utilize these funds. 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) GCECT gives updates on the entrepreneurial activities on the homepage of the institute's website to promote 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 have been created by the institutes. 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.   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 holds 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 must not accept gifts from the startup.

f) Faculty must not involve research staff or other staff of the 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

8. Pedagogy and Learning Interventions for Entrepreneurship Development

a) Diversified approach has been 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.

   i. Student clubs/ bodies/ departments have been created for organizing competitions, bootcamps, workshops, awards, etc. These bodies are involved in institutional strategy planning to ensure enhancement of the student's thinking and responding ability.

   ii. GCECT has started an annual 'INNOVATION & ENTREPRENEURSHIP AWARD' to recognize outstanding ideas, successful enterprises and contributors for promoting innovation and enterprises ecosystem within the institute. Innovation champions are nominated from within the students/ faculty/ staff for each department/ stream of study

   iii. For creating awareness among the students, the teaching methods of GCECT include case studies on business failure and real-life experience reports by startups.

   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 the GCECT's philosophy and culture.

b) Entrepreneurship education is imparted to students at curricular/ co-curricular/ extracurricular 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.

   i. Integration of expertise of the external stakeholders is done in the entrepreneurship education to evolve a culture of collaboration and engagement with the external environment.

   ii. In the beginning of every academic session, GCECT conducts 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 for

entrepreneurship education is continuously updated based on entrepreneurship research outcomes. This includes case studies on failures.

iii. Industry linkages are leveraged for conducting research and survey on trends in technology, research, innovation, and market intelligence.

iv. Sensitization of students is done for their understanding of expected learning outcomes.

v. Student innovators, startups, experts are engaged in the dialogue process while developing the strategy so that it becomes need based.

vi. Customized teaching and training materials have been developed for startups.

vii. It must be noted that not everyone can become an entrepreneur. The entrepreneur is a leader, who would 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. One must carefully evaluate whether a student is capable and willing to take risk.

c) Pedagogical changes are done to ensure that the maximum number of student projects and innovations are based around real life challenges. Learning interventions developed by GCECT for inculcating entrepreneurial culture are constantly reviewed and updated.

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

a) Stakeholder engagements are given prime importance in the entrepreneurial agenda of the GCECT. GCECT always tries to find potential partners, resource organizations, micro, small and medium sized enterprises (MSMEs), social enterprises, alumni, professional bodies and entrepreneurs to support entrepreneurship and co-design the programs.

i. To encourage co-creation, bi-directional flow/ exchange of knowledge and people would be ensured between institutes such as incubators, science parks, etc.

ii. GCECT organizes networking events for better engagement of collaborators and always 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.

iii. Mechanism has been developed by GCECT to capitalize on the knowledge gained through these collaborations.

iv. Care is taken to ensure that events DON'T BECOME an end goal. First focus of the incubator is to create successful ventures.

b) Knowledge exchange through collaboration and partnership is a part of GCECT's culture for creating, managing and coordinating these relationships.
    i. Single Point of Contact (SPOC) mechanism is created in GCECT for the students, faculty, collaborators, partners and other stakeholders to ensure access to information.
    ii. Knowledge management is done by GCECT through development of innovation knowledge platform using inhouse Information & Communication Technology (ICT) capabilities.

10. Entrepreneurial Impact Assessment

a) Impact assessment of the institute's entrepreneurial initiatives is done as per the Atal Ranking of Institutions on Innovation Achievements framework.
    i. Monitoring and evaluation of knowledge exchange initiatives, engagement of all departments and faculty in the entrepreneurial teaching and learning are assessed.
    ii. Number of startups created, support system provided at the institutional level and satisfaction of participants, new business relationships created by the institutes are recorded and used for impact assessment.
b) Impact is 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.