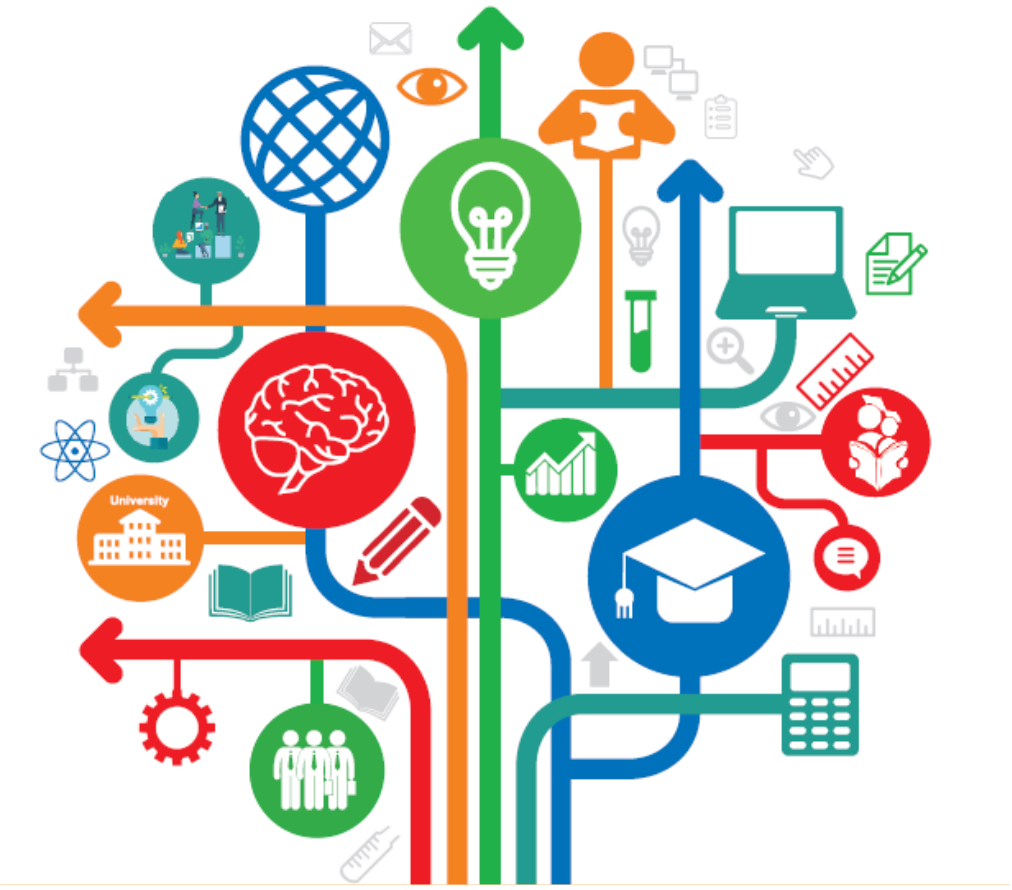
GOVERNMENT COLLEGE OF ENGINEERING, AMRAVATI

(An Autonomous Institute of Government of Maharashtra)



GCOEA Innovation & Start up Policy 2022

Ref: National Innovation and Start up Policy 2019 (Ministry of Education, Govt. of India.)

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GCOE Amravati Innovation & Start Up Policy

Preamble: The Government College of Engineering (GCOEA) Innovation and Start-up Policy-2022 have been formulated by a team of faculty members associated with IIC on the guidelines of **National Innovation and Start up Policy 2019 given by Ministry of Education, Govt. of India**. In NISP these guidelines were drafted by Expert Team which will facilitate Ministry of Human Resource Development in bringing uniformity across HEIs in terms of IPR ownership management, technology licensing and institutional startups policy, thus enabling creation of a robust innovation and Startup ecosystem across all HEIs. These guidelines will also help emphasize that the entrepreneurship is all about creating a business, which is financially successful. GCOEA Innovation and Start-up Policy-2022 which is in line with **National Innovation and Start up Policy 2019** will help students and faculties to undertake various innovative projects, IPR, Startup, New Idea generation etc.

a) Strategies and Governance

1) Entrepreneurship promotion and development should be one of the major dimensions of the HEIs strategy. The Entrepreneurship Cell shall be constituted at the institute level with defined specific objectives and different awareness program shall be arranged periodically to increase awareness and opportunity for Entrepreneurship development.
2) Investment in the entrepreneurial activities should be a part of the institutional financial strategy. Minimum 10 Lac. fund of the annual budget of the institution should be allocated for funding and supporting innovation and startups related activities through creation of separate 'Innovation fund'.
3) The strategy should also involve raising funds from diverse sources to reduce dependency on the public funding. Bringing in external funding through government (state and central) such as DST, DBT, MHRD, AICTE, TDB, TIFAC, DSIR, CSIR, BIRAC, NSTEDB, NRDC, Startup India, Invest India, MeitY, MSDE, MSME, etc. and non-government sources should be encouraged.
4) To support technology incubators, academic institutes may approach private and corporate sectors to generate funds, under Corporate Social Responsibility (CSR) as per Section 135 of the Company Act 2013.
5) Institute may also raise funding through sponsorships and donations. Institute should actively engage alumni network for promoting Innovation & Entrepreneurship (I&E).
6) Importance of innovation and entrepreneurial agenda should be known across the institute and should be promoted and highlighted at institutional programs such as conferences, convocations, workshops, etc.
7) Institute should develop and implement I & E strategy and policy for the entire institute in order to integrate the entrepreneurial activities across various centers, departments, faculties, within the institutes, thus breaking the silos.

b) Startups Enabling Institutional Infrastructure

Creation of pre-incubation and incubation facilities for nurturing innovations and startups in GCOEA institution should be undertaken. 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.

1) GCOEA Planning to create facilities within their institution for supporting pre-incubation (e.g. IICs as per the guidelines by MHRD's Innovation Cell, EDC, IEDC, New-Gen IEDC, Innovation Cell, Startup Cell, Student Clubs, etc.) and Incubation/ acceleration by mobilizing resources from internal and external sources.
2) This Pre-Incubation/Incubation facility should be accessible 24x7 to students, staff and faculty of all disciplines and departments across the institution.
3) Pre-incubation facilities may or may not be a separately registered entity or Special Purpose Vehicle (SPV), but we recommend that 'Incubation cum Technology Commercialization Unit'(ITCU) should be a separate entity 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.
4) GCOEA may offer mentoring and other relevant services through Pre-incubation/Incubation units in-return for fees, equity sharing and (or) zero payment basis. 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 explained in Section 3.

c) Nurturing Innovations and Start ups

a) GCOEA is expected to establish processes and mechanisms for easy creation and nurturing of Start ups/enterprises by students (UG, PG, Ph.D.), faculty, alumni and potential start up applicants even from outside the institutions.

b. While defining the process, GCOEA will ensure to achieve following:

i. Incubation support: Offer access to pre-incubation & Incubation facility to start ups by students, staff and faculty for mutually acceptable time-frame.

In case GCOEA doesn't have a dedicated facility/ infrastructure of its own, then it may reach out to nearest incubation facilities in other HEIs in order to facilitate access to their students, staff and faculty.

ii. Will allow licensing of IPR from GCOEA 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 GCOEA, 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.

iii.Will allow setting up a start up (including social start ups) and working part-time for the start ups while studying / working: HEIs may allow 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 (incubated in any recognized HEIs/Incubators) while studying / working. Student inventors may also be allowed to opt for start up in place of their mini project/ major project, seminars, summer trainings. The area in which student wants to initiate a start up may be interdisciplinary or multi- disciplinary. 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.

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 GCOEA.

d. Students entrepreneurs should be allowed to sit for the examination, even if their attendance is less than the minimum permissible percentage, with due permission from the GCOEA.

e. 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 and come back as per **Govt. of Maharashtra leave rule**. GCOEA should consider allowing use of its resource to faculty/students/staff wishing to establish start up as a fulltime effort..

f. GCOEA 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.

ii 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.

iii GCOEA may 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.

iv License institute IPR as discussed in section 4 below.

g. In return of the services and facilities, GCOEA may take 2% to 9.5% equity/ stake in the startup/ company, based on brand used, faculty contribution, support provided and use of institute's IPR (a limit of 9.5% is suggested so that institute 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.

- 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.

h. Institute could extend this startup facility to alumni of the institute as well as outsiders.

i. Participation in start unrelated 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 faculty may be encouraged to mentor at least one startup.

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 GCOEA.

i. Inventors and GCOEA could together license the product / IPR to any commercial organization, 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. GCOEA may not be allowed 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 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.

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 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. GCOEA 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. GCOEA 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 Principal, heads of department, Deans Administrative Officer

f. Interdisciplinary research and publication on startup and entrepreneurship should be promoted by the institutions.

5. Organizational Capacity, Human Resources and Incentives

a. Institute should recruit staff that have a strong innovation and entrepreneurial/ industrial experience, behaviour and attitude. This will help in fostering the I&E culture.

i. Some of the relevant faculty members with prior exposure and interest should be deputed for training to promote I&E.

ii. To achieve better engagement of staff in entrepreneurial activities, institutional policy on career development of staff should be developed with constant up skilling.

b. Faculty and departments of the institutes 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.

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 should be encouraged to do courses on innovation, entrepreneurship management and venture development.

e. In order to attract and retain right people, GCOEA should develop academic and 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, associateships, etc.

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 society and 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, boot camps, seminars, conferences, exhibitions, mentoring by academic and industry personnel, throwing real life challenges, awards and recognition should be routinely organized.

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

b. The GCOEA should 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. The GCOEA should establish Institution's Innovation Councils (IICs) as per the guidelines of MHRD's Innovation Cell and 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.

d. For strengthening the innovation funnel of the institute, access to financing must be opened for the potential entrepreneurs.

i. Provide business incubation facilities: premises at subsidised 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.

7. Pedagogy and Learning Interventions for Entrepreneurship Development

a. 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.

i. Student clubs/ bodies/ departments must be created for organizing competitions, boot camps, workshops, awards, etc. These bodies should be involved in institutional strategy planning to ensure enhancement of the student's thinking and responding ability.

ii. GCOEA should organized department level annual 'INNOVATION & ENTREPRENEURSHIP AWARD' to recognize outstanding ideas, successful enterprises and contributors for promoting innovation and enterprises ecosystem within the institute.

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

b. 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.

i. 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.

ii. In the beginning of every academic session, departments should conduct an induction program about the importance of Innovation & Entrepreneurship (I&E) so that freshly inducted students are made aware about the entrepreneurial agenda of the institute and available support systems. Curriculum for the entrepreneurship education should be continuously updated based on entrepreneurship research outcomes. This should also include case studies on failures.

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

iv. Sensitization of students should be done for their understanding on expected learning outcomes.

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

vi. Customized teaching and training materials should be 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 need to be done to ensure that maximum number of student projects and innovations are based around real life challenges. Learning interventions developed by the institutes for inculcating entrepreneurial culture should be constantly reviewed and updated.

8. Norms for Faculty Startups

a. For better coordination of the entrepreneurial activities, 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. Faculty must clearly separate and distinguish on-going research at the institute from the work conducted at the startup/ 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) may be permitted to the faculty as per Govt. of Maharashtra Leave rule with prior permission from higher authority.

d. Faculty must not accept gifts from the startup.

e. Faculty must not involve research staff or other staff of institute in activities at the startup and vice-versa.

f. **The institute will provide grant in aid of Rs 100000.00 to each start up by the faculty subject to scrutiny by the committee set by the principal on the basis of uniqueness and patentability. If further grant in aid is required then, detailed proposal with justification shall be forwarded to Principal appointed scrutiny committee consisting internal expert from related field.**

9. Policies for the Students

i. The GCOEA will allow students to set up a start-up (including social start-ups) or work part-time for a start-up, while studying. Students can work on their innovative projects and set up start-ups (including social start-ups), or work as intern / part-time in start-ups (incubated in the Institution), while studying.

ii. Student entrepreneurs may earn credits for working on innovative prototypes /Business Models. Students can earn 6 credits by working on Innovative Prototypes/Business models as per institute curriculum

iii. Student inventors are allowed to opt for start-up in place of their mini project/ major project, seminars, summer training. The area in which a student wants to initiate a startup may be interdisciplinary or multidisciplinary. However, students must delineate how they will demarcate and clearly distinguish their ongoing research activities as a student from the work being conducted at the start-up.

iv. Students who are under incubation but are pursuing some entrepreneurial ventures while studying are allowed to use their address in the Institution to register their company, with due permission from the institution.

v. Student entrepreneurs are allowed to sit for the examination, even if their attendance is less than the minimum permissible percentage, with due permission from the Institution.

vi. If a student is working on Innovative prototypes/business models that can be patentable or leading to a start-up, he/she can earn 6 credits per semester for as per institute policy.

vii. Student entrepreneurs may avail a semester break/year break to work for their start-up (or even longer, depending upon the decision of the Review Committee constituted by the Institution) and re-join academics to complete their course. Student entrepreneurs may earn academic credits, for their efforts while creating an enterprise. Institution shall set up a Review Committee for review of start-ups by students, and based on the progress made, it may consider giving appropriate credits for academics

vii. **The institute will provide grant in aid of Rs 100000.00 to each start up after checking the uniqueness, patentability of idea by R&D scrutiny committee. If further grant in aid is required then, detailed proposal with justification shall be forwarded to Principal appointed scrutiny committee consisting internal expert from related field.**

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