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GCOEN/2022/IIC/...5.4H2
Date: 27/09/2022

Minutes of the meeting.

Subject: Approval of the *GCOEN Innovation and Start-up Policy-2022*

Meeting of GCOEN Innovation and Start-up Policy-2022 formulation Committee was held on Thursday, 22/09/2022 in the Meeting Hall at 3.30pm under the chairmanship of Hon Principal, Dr R P Borkar. The external members have joined the meeting online while inhouse members joined it in person. All members of the committee, as listed below, were present for the meeting.

1.	Dr R P Borkar, *Principal, GCOEN*	Chairperson
2.	Dr N D Ghawghawe, *Prof. & Head, Dept of EE & Dean IIPC, GCOEN*	Member
3.	Dr Kshitija Kadam, *Asso. Prof. App Mech, Dean R&QA and President IIC GCOEN*	Member
4.	Dr U D Gulhane, *Founder director Urvi Transformers Pvt Ltd Wardha & Infilux Illuminations Pvt Ltd Aurangabad,*	Member
5.	Dr Vishal Lichade, *MD, Softsense Technoserve (I) Pvt Ltd Nagpur*	Member
6.	Dr Latesh Bhagat *Asso. Prof. & Head, Dept of CSE, GCOEN*	Member
7.	Dr Jasmirkaur Randhawa, *Asst. Prof. in Phy & NISP Coordinator*	Mem. Sec.

Draft of GCOEN Innovation and Start-up Policy-2022 has been formulated by a team of faculty members associated with IIC on the guidelines of NISP 2019. The above committee has unanimously approved the draft with following recommendations.

1. Looking at the dire need of financial assistance for Innovation and Start-up related activities, 1% of the other fees will be utilized for promotion these activities. IIC president will plan and convene these activities like field visits (minimum 2 per year), expert talks, conduct of institute level Hackathons, innovation/start-up related competitions in Adhyayaa, MIC calendar activities as well as IIC self-driven activities.

2. GCOEN being a purely Government non-autonomous organization, the guidelines regarding "Product Ownership Rights for Technologies Developed at Institute" should be directly taken from NISP2019 and should be rewritten in the policy document without referring again to NISP2019.

3. It has been suggested that there is no need of specifying time duration for which the policy will remain in force before revision. It can be revised by the committee as and when required.

4. The member secretary has been entrusted with the responsibility of its popularization amongst students, faculty and staff members.

Member secretary
Dr Jasmirkaur Randhawa
Asst. Prof. in Physics & NISP Coordinator

Chairperson
Dr Rewatkumar Borkar
Principal, GCOEN
Principal
Govt. College of Engg,
Nagpur

Copy to: All members along with corrected policy document.

GOVERNMENT COLLEGE OF ENGINEERING NAGPUR
Institution Innovation Council

GCOEN Innovation and Start-up Policy 2022

Policy Formulation Committee

1. **Dr Rewatkumar Borkar**   **Chairperson**
   Principal, GCOEN

2. **Dr Nitin D Ghawghawe**   **Member**
   Prof. & Head, Dept of EE & Dean IIPC, GCOEN

3. **Dr Kshitija Kadam**   **Member**
   Asso. Prof. App Mech, Dean R&QA
   and President IIC GCOEN

4. **Dr U D Gulhane**   **Member**
   Founder director Urvi Transformers Pvt Ltd Wardha &
   Infilux Illuminations Pvt Ltd Aurangabad

5. **Dr Vishal Lichade**   **Member**
   Managing Director, Softsense Technoserve (I) Pvt Ltd Nagpur

6. **Dr Latesh Bhagat**   **Member**
   Asso. Prof. & Head, Dept of CSE, GCOEN

7. **Dr Jasmirkaur Randhawa**   **Member secretary**
   Asst. Prof. in Physics & NISP Coordinator

This policy document *"GCOEN Innovation and Start-up Policy 2022"* is formulated majorly by taking directly the guiding features from NISP-2019, with changes/details incorporated as per institutes distinctive needs and limitations. The committee suggests that the institution should communicate this policy to the *DTE Maharashtra state Mumbai* and *Board of Innovation, Incubation and Linkages, RTMNU Nagpur* abouts their stand on implementation of NISP 2019 recommendations, so that strategies regarding IPR sharing, technology transfer, product to market strategy, academic interventions, etc. could be developed for the individual cases.

1. Strategies and Governance

   a. Institute Innovation Council should function as the central body coordinating all innovation and start-up related activities. Following activities are to be carried out by institute level faculty coordinators supported by a team of students.

      (i)   Hackathons, Science fairs, other competitions etc.
      (ii)   ARIIA

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(iii)   Intellectual Property Management
(iv)   Start-up Cell (Entrepreneurship Development Cell)
(v)   Pre-incubation and Incubation (PTI, TI, BI and TBI) Centre
(vi)   Web-portal and social media Facility

President IIC should devise mechanism to ensure timely communication amongst all stake holders for coordinated efforts and expedited decision making.

b. IIC should set objectives, plan, schedule (calendar for the year) and coordinate different activities to be carried out for promotion of innovation and entrepreneurship, trainings, to identify/screen potential innovative ideas and ensure proper mentoring, resource mobilizations, academic freedom and financial assistance for it.

c. Capacity building training programmes on Innovation, IPR, Design thinking should be conducted for motivated/interested faculty members and students by professional training organizations like RGNIPM, DPIIT, IIMs etc.

2. Start-ups Enabling Institutional Infrastructure

On campus pre-incubation facility should be provided to innovators (students, faculty, staff members and outside person), which includes ideation, development of prototype and preparation of business model.

a. As per the NISP 2019 guidelines investment in entrepreneurial activities should be part of institutional financial strategy and a minimum 1% fund of the total annual budget of the institution should be allocated for supporting innovation and start up related activities through creation of 'Innovation Fund'. Principal should allocate a minimum of 1% of the institute budget for innovation and entrepreneurship promotional needs.
b. Being a newly incepted, the institution must try to tap resources from various funding agencies to create technical incubator. Efforts should be made for bringing in external funding through government (state and central) such as DST, DBT, MHRD, AICTE, TDB, TIFAC, DSIR, CSIR, BIRAC, NSTEDB, NRDC, Start-up India, Invest India, MeitY, MSDE, MSME, etc. and non-government sources. training and making the recurring expenditure to ensure best nurturing of the identified innovative ideas.
c. The institution should try to develop its own technical incubator by raising funds from private and corporate sector under CSR (Corporate Social Responsibility) as per section 135 of the Company Act 2013.
d. IIC should encourage departments to raise funding through sponsorships, donations and actively engaging alumni network for promoting Innovation & Entrepreneurship (I&E). (ARIIA KPI)
e. In house pre-incubation facility: Projects involving innovative technical solutions needs to be worked on constantly and hence pre-incubation facilities, tinkering labs are very much required on campus enabling students to spend sufficient time on their ideas. IIC should get all the technical incubation facilities available on campus documented, and make it available on the IIC portal. (KPI)
f. GCOEN should try to help students obtain seed funding at their early stage of inception when the students are found to have a Minimum Viable Product (MVP).

3. Creating Innovation Pipeline and Pathways for students to guide them from idea to prototype

    a. A section dedicated to IIC should be created on the institute website. It should include following information

        (i) IIC structure and names & contact details of office bearers

        (ii) GCOEN Innovation and Entrepreneurship Policy document

        (iii) Names and contact details of all activity coordinators and innovation ambassadors

        (iv) IIC activity calendar for the current academic year

        (v) Details of Pre-incubation and incubation facility and support

        (vi) In-house IPR support and contact details

        (vii) Details of previously completed projects in the form of reports

        (viii) A link for a student to register him/herself with facility to upload details of her ideas (Google form or similar plate-form)

        (ix) It should provide information of resources necessary for development of innovation and entrepreneurship skills like MIC leadership talks videos, MIC online sessions videos, National and International Hackathon links where problem statements are available, others

        (x) Information of Different Trainings and Competitions conducted by the institution towards identification and nurturing of innovation

    b. An introduction session should be conducted for newly joined students every year, highlighting the importance of being innovative and how their ideas are nurtured in this organization, what facilities and support are given, what is the modus operandi etc. In the first year of policy implementation this session should be conducted for all students.

4. IPR expertise on campus

    a. For Intellectual Property (IP) ownership management, technology licensing, it is proposed that capacity of a few faculty members as IPR expertise has to be built to ensure IPR expertise on campus. For this collaboration with RGNIPM can be done.

It is also proposed that the process could also be through Registered Patent agent/ legal firm.

To promote IP applications from institute, it is proposed to have an agreement for fee expenditure and monitory gains between inventor and the institute ie GCoEN depending upon budgetary provisions.

5. Product Ownership Rights for Technologies Developed at Institute

At this stage the following guidelines given by MoE in NISP 2019 are being suggested to be referred.

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

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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. An institute 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 16 MIC 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 centre 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-institutional 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, deans or registrars.

f. Interdisciplinary research and publication on start-up and entrepreneurship should be promoted by the institutions.

6. Pedagogy and Learning Interventions for entrepreneurship Development

Entrepreneurial skills can always be developed and for promoting entrepreneurship, students should be exposed to the challenging prospect for employment and their entrepreneurship awareness should be raised. The institution should lay a solid foundation of knowledge on entrepreneurship and improve their entrepreneurial skills and abilities through both classrooms learning and beyond. It should try to reduce fear of entrepreneurial risks among college students with continuous mentoring and support.

i. In the beginning of every academic session, IIC should conduct session in the induction programme about the importance of I&E so that newly inducted students are made aware about the entrepreneurial agenda of the institute, available support systems and facilities. The prime objective of this session should be to encourage students for creative thinking and innovation in their respective fields/streams of engineering.

ii. Entrepreneurship development coordinator must conduct at least one short term or long-term course in a semester on innovation, entrepreneurship and venture development for imparted Entrepreneurship education to interested/identified* students/faculty/staff at extracurricular level. Validated learning outcomes should be made available to the students. Sensitization of students should be done for their understanding on expected learning outcomes. This should also include case studies on failures.

iii. Institutes should start annual **'Innovation & Entrepreneurship Award'** to recognize outstanding ideas, successful enterprises and contributors for promoting innovation and enterprises ecosystem within the institute.

iv. **Innovation champions** should be nominated from within the students/ faculty/ staff for each department/ stream of study.

v. For creating awareness among the students, the teaching methods should include case studies on business failure and real-life experience reports by start-ups. Tolerating and encouraging failures: Our systems are not designed for tolerating and encouraging failure. Failures need to be elaborately discussed and debated to imbibe that failure is a part of life, thus helping in reducing the social stigma associated with it. Very importantly, this should be a part of institute's philosophy and culture.

vi. 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. Industry linkages should be leveraged for conducting research and survey on trends in technology, research, innovation, and market intelligence. Student innovators, start-ups, experts must be engaged in the dialogue process while developing the strategy so that it becomes need based.

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 start-up. 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.

viii. 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.
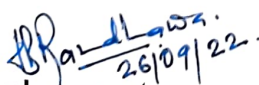
7. Entrepreneurial Impact Assessment

In the first two years of implementation of this policy, for regular assessment of impact of institute's entrepreneurial initiatives following evaluation parameters (Key Performance Indicators KPIs) suggested by the ARIIA framework should be used. A compilation of these parameters are given as follows:

i. Monitoring and evaluation of knowledge exchange initiatives, engagement of all departments and faculty in the entrepreneurial teaching and learning should be assessed by

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a. Number of co-curricular I & E related events conducted/attended by faculty and students
b. Number of Academic Programmes (Diploma/ UG/ PG/ PhD) offered, short term programme like certificate courses, FDP/STTP etc. related to Innovation & Entrepreneurship (I & E) & IPR conducted by the institutions
c. Dedicated Infrastructure & Facilities to Promote Innovation & Entrepreneurship like Number of active Ideas/ Innovation centric Student Clubs; Pre-incubation centers such as Tinker Lab/ EDC/ IEDC/ New Gen IEDC/ etc. with minimum space of >= 600 sq. ft. floor area; Incubation Unit with minimum space of >= 1500 sq. ft. floor area; Existence of Research Park/Innovation Park with minimum Space of >= 5000 sq. ft. Floor area; Existence of CoE with minimum space of >= 10000 Sq ft floor area; IPR Cell / Patent Facilitation Unit / Technology Transfer Centre at the institute; Number of dedicated staff, empanelled external experts/ agencies;
d. No of Innovations/ ideas generated with the support of the institution and recognition received
e. No of Ventures Established with the support of the institution & recognitions Received
f. Amount mobilized through Angel &VC Fund/Investment to Support Innovation & Start-ups Incubated at institution
g. Number of Collaborations with outside incubators for Co-Creation of I & E initiatives
h. Number of Intellectual Property (IPs like Design/Copyrights/Patents), generated, applied, granted and commercialized
i. Amount of annual Budget spent on Promoting and Supporting I&E Activities: Total expenses towards innovation, IPR and entrepreneurship activities
j. Total Revenue Generated by HEI from Incubation Services to Start-ups and Commercialization of IP and Innovations

ii. Number of start-ups created, support system provided at the institutional level and satisfaction of participants, new business relationships created by the institutes should be recorded and used for impact assessment.

iii. Impact should also be measured for the support system provided by the institute to the student entrepreneurs, faculty and staff for pre-incubation, incubation, IPR protection, industry linkages, exposure to entrepreneurial ecosystem, etc.

Being purely Government organization GCoEN should adopt NISP-2019 guidelines in related to working hours distribution and deciding the stake of institution, faculty, students etc. Similarly, NISP-2019 should be followed for all financial and legal stakes in Collaboration, Co-creation, Business Relationships and Knowledge Exchange.

26/09/22.

Member secretary
Dr Jasmirkaur Randhawa
Asst. Prof. in Physics & NISP Coordinator

Chairperson
Dr Rewatkumar Borkar
Principal, GCOEN