NEHRU GRAM BHARATI

(Demed to be University)

Innovation and Startup Guidelines

(Addendum to Research Promotion Policy)

1.0 Short Title, Application and Commencement

1.1 These guidelines may be called Nehru Gram Bharati (DU) Prayagraj "Policy guidelines for the promotion of innovation and start-up."

1.2 These guidelines shall apply to all Faculty members, Staff, Research fellows, Ph.D. Scholars and students of Nehru Gram Bharati (DU) Prayagraj.

1.3 The Policy Guidelines shall come into force with effect from the date of approval.

2.0 Introduction

The Ministry of Human Resource Development in 2019, released the National Innovation and Startup Policy 2019 for students and faculty of Higher Education Institutions (HEIs) with an aim of building a strong ecosystem at HEI's for nurturing creativity and entrepreneurial abilities amongst the youth as well as creating a conducive environment for entrepreneurial projects. The vision behind the initiative is to facilitate engagement of student and faculty in innovation and entrepreneurship which will drive a sustainable economic growth by becoming a source of job creation. Innovation and Entrepreneurship has emerged as one of the key points of higher education system with focus to give impetus to overall economic development for realizing the vision of self-reliant India (Atmanirbhar Bharat). In the light of this, NGB(DU) needs a policy document for reference and guidance for all stakeholders. This Innovation and Startup policy shall also act as a catalyst in creating more campus entrepreneurs by providing awareness on taking entrepreneurship as a preferred career.

2.1 Background

In past the various Ministries of the Government of India have initiated several activities for the growth of innovation and startup ecosystem. Different State Governments including Uttar Pradesh have come up with States Policy on Innovation and Entrepreneurship. Also, to bring uniformity in the identified enterprises, Ministry of Commerce and Industries (Department of Industrial Policy and Promotion) on 17th February, 2016 has notified which entity which will be considered as a 'startup' in the in the Gazette of India. This was done as per launch "Startup India" by Hon'ble Prime Minister of India on 16th January 2016. Over the last decade, there has been a growing realization in India that with its 65% of the population under the age group of 35 years, it is imperative that we not only explore the new avenues for their employability but also and most importantly, address their aspirations to have their own ventures. In order to provide sustainable impetus to the initiation of startups and boost innovation, it is important that the budding student entrepreneurs gets right kind of guidance and help at their campus.

2.2 Vision

Developing a comprehensive ecosystem for supporting innovation and nurturing startups amongst the NGB(DU) community.

2.3 Mission

To inculcate entrepreneurial competence in students, grooming them to take on entrepreneurial role as a preferred career and foster a student-driven and socially relevant sustainable start-ups.

2.4 Objectives

The objectives of these guidelines are:

i. To encourage student and faculty to pursue innovation and entrepreneurship.
ii. To inspire students and faculty to align with the University's broad based goal i.e. enhance employability and entrepreneurial capability among students.
iii. To foster an ecosystem to generate ideas across disciplines that can be transformed into successful innovative technologies, products and services
iv. To develop mechanism for technology development and technology transfers.
v. To provide mentorship, guidance and support to create start-ups.
vi. To collaborate with various government departments, research organizations, industry and funding agencies to promote and support innovation, technology development and startups.
vii. vii. To create an institutional framework for effective implementation, monitoring and evaluation of this policy.

3.0 Definitions

i. Accelerators: Startup Accelerators design programs in batches and transform promising business ideas into reality under the guidance of mentors and several other available resources.

ii. Angel Investors and Venture Capital Funds: Individuals or firms financing startups

iii. Academic Programme: The academic programmes in all streams consists of core courses, domain electives, open electives and value addition courses

iv. Academic Programme Worksheets: As per choice-based credit system the student has a choice of courses from a basket of courses to finalize his academic programme worksheet.

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

vi. Co-Creation: 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.

vii. Entrepreneurship Course Curriculum: It refers to the course contents and academics that are provided to students for entrepreneurship development and awareness. It includes courses on business opportunity identification, business idea generation, creativity and innovation, B-plan and feasibility, Government policies etc.

viii. Equity: 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.

ix. Incubation: 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.

x. Intellectual Property Rights Licensing: A licensing is a partnership between an intellectual property rights owner and another who is authorized to use such rights (licensee) in exchange for an agreed payment (fee or royalty).

xi. Pedagogy: It refers to specific methods and teaching practices (as an academic subject or theoretical concept) which would be applied for students working on start-ups.

xii. 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.

xiii. 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.

xiv. Student Start-up: A Start-up that is initiated by student(s) enrolled in NGB(DU), Prayagraj.

xvi. Technology commercialization: Technology commercialization is the process of transitioning technologies from the research lab to the marketplace

xvii. 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 a compensation.

xviii. Venture Capital: It is the most well-known form of start-up funding.

4.0 Strategies & Governance for promotion of entrepreneurship

4.1 Creation of appropriate Infrastructure: -

4.1.1 University to provide latest core infrastructural facility for innovation and startup activities such as ready to use infrastructure including fully furnished sitting arrangement, computers with internet connectivity, electricity, water, security and other office.

4.1.2 Facilities such as research labs, testing labs, design studios, Entrepreneurship development centre, Technology transfer cell, IPR cell, Technology enabling centre, to be made available.

4.1.3 Promotional support for incubators and startups etc. should be setup

4.1.4 Availability of resources for pre-incubation and development of common facilities to be made available as a part of financial strategy for prospective innovators and entrepreneurs. To work on entrepreneurial agenda budgetary provision to be made available in terms of:

i. Allocation of up to 1% of annual institutional budget for funding and supporting innovation and startups related activities.

ii. Fund raising from Government funding agencies such as DST, DBT, BIRAC, MHRD, AICTE NRDC, Startup India, Invest India, MeitY, MSDE, MSME, etc., industries and other private networks

iii. Support from Alumni network and active engagement with corporates under CSR activities.

4.1.5 Promotion of Innovation and Entrepreneurship to be one of the agenda in annual planning of the University as a part of planning strategy. Proper mechanism to be introduced for monitoring and assessment to facilitate for the development goals as per annual planning

4.1.6 All the Advisers, Deans and HoIs will be responsible for implementation of Innovation and Entrepreneurship goals for long term sustainability of the vision and mission statements along with appropriate focus on it.

4.1.7 Smooth processes to be developed for decision making and solving hierarchical barriers.

4.1.8 Wide publicity of Innovation and Entrepreneurial agenda across all domains and department of the University to be given for promoting innovation through multidisciplinary approach.

4.1.9 The university will participate in various activities related to innovation and startups promoted by MoE, UGC, AICTE and other government bodies, industry and academia in order to develop the spirit, skill and competencies of innovation and entrepreneurship. The University will mobilize students for Smart India Hackathon (SIH) and other innovation, business idea and startup competition.

4.1.10 The University will participate in Atal Ranking of Institutions Innovation

Achievement (ARIIA) and other national and international rankings.

4.1.11 NGB(DU) to develop pedagogical Interventions like infuse design thinking into the syllabi and inclusion of Innovation and Entrepreneurship programmes in curriculum to facilitate startup process by seamlessly integrating the incubation value chain into the academic programs to have early exposure of incubation value chain to potential student start-ups.

4.1.12 Encouragement of participation of Students and Faculty members in national and state level activities like seminar, conference/in-house programmes of Incubators/Accelerators, boot camps and other similar programmes related to Innovation/Entrepreneurship/IPR/Design.

4.1.13 University to create a Hub and Spoke Incubation Model involving all possible stakeholders to have Incubation both in in-situ and ex-situ mode.

4.1.14 University to host regularly start-up related national level dialogues, workshops and conferences to benchmark its own progress and influence national policy makers to shape futuristic policies and action strategies to promote Innovation and Student Start-ups in affiliating- type Universities

4.2 Enabling environment for promoting entrepreneurship and start -ups

4.2.1 Students: -

i. Students are expected to have 100% attendance. However relaxation in attendance up to 25% can be given.

ii. The institute would allow their students to take a semester/year break (as per recommendation of Head of the Institution) to devote time on the startup venture.

iii. Appropriate credits to be awarded based on the recommendations of the review committee for Student entrepreneurs showing positive results in enterprise.

iv. Conducting regular Webinars on Innovations and Startups every semester.

v. Facilitate Start-ups by Alumni (within 3 years of graduation)

4.2.2 Faculty: -

i. University to allow faculty to take off for a semester / year in the form of as sabbatical/ casual leave/ earned leave/ unpaid leave for working on technology transfer/startups/student startups.

ii. The seniority and other academic benefits during such period may be preserved for such faculty.

4.3 Creating Innovation Pipeline and Pathways for Entrepreneurs

4.3.1 The University to facilitate creation of innovation pipeline and pathways in two stages, one for the development of innovative products and services for societal benefit encompassing the sectors for sustainable development such as Agriculture, Energy, Environment, Food, Health and the second one for monetizing such innovations through start-ups/technology transfer.

4.3.1.1 The mechanism developed at the University to develop skills associated with entrepreneurship innovation pipeline and pathways includes curriculum and extra curriculum based programs like training programs in form of Webinars / Lectures / Hands-on Workshops. The following programs will be offered to all students and can be organized at three levels viz., Beginners, Intermediate, and Advanced level:

a) Ideation, process of generating ideas, which has been formalized for solving tangible and practical problems. It can be taught to participants through Curriculum and extra curriculum based programs like training programs in form of Webinars / Lectures / Hands-on Workshops / Curriculum on Design Thinking / Market Research etc. These programs will be offered to all students and will be organized at three levels viz., Beginners, Intermediate, and Advanced level.

• Credit course to be offered on Idea Generation during each semester.

• Periodic/regular competition(s) on Idea Generation for National Priority Areas to be conducted and the winners will be facilitated with recognition and help them out in implementation of the ideas and IP protection.

b) Implementation: It is the process of converting ideas into products and is a very mature field

• Credit course to be offered on Product Design in each semester.

• Tinker Labs and Specialized Technology Labs with off the Shelf Components for quick integration and testing of Idea/concept should be developed for all the key technologies like IoT / Blockchain / AI / ML etc.

4.4 Building Organizational Capacity, Human Resources, and Incentives

4.4.1 NGB(DU) to identify/recruit faculty to be inducted with innovation and entrepreneurial/industrial experience, behavior and attitude to help in promoting innovation at all levels.

4.4.2 The existing faculty will be trained in entrepreneurship development skills through various Faculty development programmes and Entrepreneurship Development Programmes.

4.4.3 The concept of Innovation mentors in all departments and Institutes will help in cross disciplinary research and innovation with linkages in various areas. This will help in utilization of resources and cross- fertilization of knowledge across the university.

4.4.4 Faculty and staff should be encouraged to undertake courses/trainings/certification on innovations, entrepreneurship and IPR.

4.4.5 Experts from industry/accelerators and incubators/Entrepreneurship development Institutes to be invited for guest lectures and industry collaboration for knowledge advancement and to extend support to the existing system

4.4.6 The Annual Student Innovation and Start-up Index will put equal stress on

process and output driven indicators along with structures and outlay driven indicators. The University will create an easily understandable ranking system, including the Student Start-up Index, which would include the work and the outcomes in student start-ups/ faculty ventures, patent / IPR/ technology transfer

4.4.7 In order to attract and retain right people, NGB(DU) will review academic and nonacademic incentives and reward mechanisms for all faculty and stakeholders to actively support entrepreneurship agenda and its activities.

a) The reward system for the faculty may include points in the Appraisal System, office and lab space for entrepreneurship development activities awards, trainings, etc.

b) The recognition of the stakeholders may include offering use of facilities and services, strategy for shared risk,

c) Students may be given incentives in terms to attendance as per university policy, credit transfer etc.

d) Awards and ranking system for on campus student startups

4.5 Collaboration

Co-creation and Business Relationship, and Knowledge Exchange

4.5.1 Stakeholder engagement

i. NGB(DU) to extend the role of the existing incubator and EDC to encourage co-creation, bi-directional flow/ exchange of knowledge.

ii. NGB(DU) to organize networking events such as trade fairs, investors meet, exhibitions and start-up fairs etc.

iii. Knowledge capitalization mechanism to be developed by the university

iv. Review of Policy and guidelines for external stakeholders for joint project/collaboration such as Incubation, co- development of product/ service/IP sharing etc.

v. Faculty, staff and students of the university be encouraged to connect with industry for research, development and funding

vi. Single Point of Contact (SPOC) mechanism for stakeholders to ensure access to information.

4.6 Incentives for Faculty & Students Driven Innovations and Startups

To ensure exposure of maximum students to innovation and pre incubation activities at their early stage, setting students' academics friendly norms and guidelines for giving suitable incentives.

4.6.1 Incentivizing Students

4.6.1.1 NGB(DU) will permit the students to setup social, tech and non tech startup right from the first year of their program of study. Students can work part time/work as an intern for the startups incubated at NGB(DU) while studying.

4.6.1.2 NGB(DU) will permit the student entrepreneurs working on a startup idea right from the first year of their program of study to convert their startup project as their final year project towards degree completion.
4.6.1.3 NGB(DU) will permit student innovators/entrepreneurs to opt for startup in place of summer training.
4.6.1.4 NGB(DU) will provide a Gap year facility to the students who wish to pursue full time entrepreneurship. Students can take a break of maximum one year for a two-year programme and two years break for three years. However, the maximum period to complete the degree will be as per the university norms i.e., the students of 2 years programme can complete their programme in N+1+1 year and students of 3 years plus duration can complete their programme in N+2+1 years, where N is the number of years of the programme.
4.6.1.5 The students will be encouraged to take up same discipline/inter-disciplinary or multi-disciplinary projects and such teams may consist of students from more than one branch of Engineering and Management. For such a project, there will be a faculty guide from each of the concerned departments and the guides will work together to support the project. For working on innovative prototypes/business Models students can earn credits.
4.6.1.6 NGB(DU) plans to permits the students who are under incubation and pursuing some entrepreneurial ventures to use their hostel address while studying at the university to register their company with due permission of the competent authority.

4.6.2 Incentivizing Faculty for Entrepreneurship

4.6.2.1 Faculty/staff can take shares up to 2% in student startups, as long as they do not spend more than 10% of office time on the start-ups in advisory or consultative role and do not compromise with their existing academic, research and administrative work /duties.
4.6.2.2 In case the faculty/ staff holds the executive or managerial position for more than three months in a start-up, then they will go on sabbatical/ leave without pay/ earned leave.

4.6.3 NGB(DU) share

4.6.3.1 In return of the services and facilities, University may take 2% to 9.5% equity/ stake in the start-ups/ company, based on brand used, contribution, support provided and use of institute's IPR on case to case basis.
4.6.3.2 In case of compulsory equity model, Start-ups may be given a cooling period of 3 months to use incubation services on rental basis to take a final decision. In such cases, University cannot force start-ups to issue equity on the first day of granting incubation support.

5.0 Incubation & Pre-Incubation support

5.1 Policy defining the support to be extended to start up during Incubation

and Pre Incubation period by NGB(DU) Incubation centre by

5.1.1 Supporting the aspiring young entrepreneurs/students in building and evolving viable business plan, pre implementation studies and support till roll out

5.1.2 Setting up its own fund or set up a fund with the support from multiple stakeholders (HNI's) and create Prototype Fund that will help very early-stage startups.

5.1.3 Supporting incubation and student projects based on merit within the availability of funds, after detailed evaluation of the Project on refundable basis. NGB(DU) support will solely be made at its discretion after evaluation of the ideation concept, project, plan feasibility and other due consideration of the associated factors

5.1.4 Setting up an Incubation Centre desk for periodical guidance, mentoring to the eligible enlisted start ups

5.1.5 NGB(DU) will also work with various PSU Banks, Financial Institutions, Corporate Houses (CSR fund) to set up a student startup angel fund, for expeditious conversion of aspiring start up dreams into realities, across campuses.

5.1.6 NGB(DU) will also establish linkages with external angel networks, incubators to help student start-ups wherever in need on a real time basis.

5.1.7 NGB(DU) will work with various venture and angel fund groups and governmental institutions to help students obtain financial incentives, marketing promotions and other start up incentives offered by the government since inception.

6.0 IPR Ownership of Technologies Developed at NGB(DU)

6.1 The University IPR Cell to extend all support for prior art search, filing of the patent, RFE/FER Filing, facilitation of patent grant. Since the University resources like research infrastructure, manpower, enterprise structures and funds are utilized or when IPR is developed as a part of curriculum/ academic activity, all IP rights shall vest with the University and be the absolute property of the university.

6.2 Directorate of Innovation and Technology Transfer (DITT) to facilitate licensing the product / IPR to any commercial organization in consultation with the inventors. License fees could be either /or a combination of

- Upfront fees or one-time technology transfer fees
- Royalty as a percentage of sale-price or fee per product sold
- Equity-stake in the company licensing the product

6.3 As University is not allowed to hold the equity as per the current statute, therefore a competent body may be requested to hold the equity stake in a start-up company on University's behalf.

6.4 When inventors wish to incubate a company and license the product to this company, the maximum royalty shall be 8% of the sale price or net sales. In-case of equity stake it shall be between 2% to 8%. However, in-case of a pure software product licensing, the revenue sharing will be mutually decided between the University and the incubated company.

6.5 When a Product/ IPR is developed by innovators not using any of the 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 the 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.

6.6 There should be a committee to resolve the IPR Ownership issues. The committee should consist of one faculty member having developed sufficient IPR and translated to commercialization, one of the university's alumni having experience in technology commercialization, one legal advisor with experience in IPR, one Technology transfer professional and Head of the University will scrutinize the issue after meeting the inventors and Institute HoI and help them to settle the matter.

6.7 When product/IP is developed utilizing university facilities and funds then NGB(DU)'s IPR cell/incubation center/Technology Transfer Office will be a coordinator and facilitator for providing services to faculty, staff and students. IPR cell will examine whether the IPR is worth patenting. The committee should consist of an internal domain expert who have experience and excelled in technology translation, one technology transfer expert and an IPR expert. However, when product/ IPR is developed by innovators not using any of the institute facilities and funds then they alone will have a say in patenting.

6.8 Committees and its Composition

6.8.1 Two levels of committees; one at the Domain level and second at the NGB(DU) (institution) level to be set up. All the recommendatory decisions pertaining to the faculty/ student start-ups will be taken up by the above committees.

6.8.2 Domain level Committee:

6.8.2.1 Role & Responsibilities: -

i. Develop strategy to promote innovation and entrepreneurship

ii. Oversee entrepreneurial activities

iii. Provide help and support to startups by providing collaborations and networking

iv. Provide guidance and facilities to start-ups during gestation.

v. Conduct awareness camps, seminars/conferences and capacity building workshops

vi. Coordinate with University level committee for getting approvals.

6.8.2.2 Composition:-

a. Chairperson - Dean/HoI/Senior professor nominated by Vice Chancellor

b. Member – Senior expert from outside the Institute, to be nominated by the Vice Chancellor.

c. Member(s) - Two professors well versed aspects of Entrepreneurship to be nominated by the Dean.

d. Member secretary -E-Cell coordinator nominated by Dean.

i. The tenure of the members in respect of points 'b' and 'c' shall be two years. The quorum for the meetings shall be 3 out of 5 members (including Chairman).

ii. The committee shall have the power to assess the issues and requests put forth before them and shall submit their recommendations on each case within a period of 30 days from the date of receipt of case.

6.8.3 University Level Committee

6.8.3.1 Role & Responsibilities:-

i. Oversee and coordinate the university's innovation and entrepreneurship pipeline

ii. Ensure the implementation of successful educational programs in Innovation and entrepreneurship

iii. Resolve any dispute

6.8.3.2 Composition:-

a. Chairperson – VC/ nominee of VC of the University.

b. Member - External expert to be nominated by the Vice Chancellor.

c. Member - Two professors well versed with Innovation/Entrepreneurship/IPR, to be nominated by the Vice Chancellor.

d. Member – Director Research

e. Member – Head IPR Cell

f. Member Secretary – Head Incubator

i. The tenure of the Committee members including Chairman shall be three years. The quorum for the meetings shall be 4 out of 6 members (including Chairman).

ii. University level committee shall consider the recommendations of the Domain level committee in the matters of sharing of finance, providing appropriate resource etc.

iii. The committee shall send the report after study and the recommendation to the competent authority within a period of 15 days from the date of receipt of recommendation of Domain level committee for implementation.

7. Pedagogy & Learning Interventions for Supporting Innovations & Start-ups

NGB(DU) will adopt and produce desirable learning outcomes as part of

curricular, co- curricular and extra-curricular level. The following pedagogy and learning interventions to be adopted

i. The Entrepreneurial Eco-System would be enhanced by promoting a conducive environment, strong inter-business partnerships for a purposeful endeavour to resolve a community problem.

ii. ii. To develop creative mind-set tools for students to build creativity, life-long learning orientation, identification of skill-sets of individual students- with directive, participative learning. It should be an enabling exercise to enable them to develop and own skill-based workshops, rotate experiential learning activities to activate others within the campus.

iii. Learning to be incorporated within students by development of multi-level, multidisciplinary, heterogeneous groups. These groups may be encouraged to identify efficacious ideas, thoughts, ventures, industry cases, projects, plans, strategies applied for rebuilding people lives, livelihoods, reconstruction of local institutions and establishments

iv. To provide environmental awareness with exposure to Industry, Society, Community problems through on-going student field work for various existing and potential problems. To identify what's working and what's not working and what's missing. To understand the importance of problem worth solving and develop and eye for opportunity recognition and opportunity evaluation.

v. v. To undertake continuous coaching and training, students must be encouraged to take up entrepreneurship as a preferred career choice and launch a business model start-up. They must be hand-held by expert faculty members to engage in pre-start-up activities, capacity building programmes/activities with available resources. They should be given an opportunity to choose field expert mentors related to their business idea to guide them on the start-ups to make it a sustainable exercise.

vi. Students will be trained to prepare financial objectives, financial budget plan for the initial start-up and calculate tentative cash flow and inflows, sales volumes, assets and liabilities, essential/non-essentials items requirements and sources from where they can be procured. The student will be skilled identify the infrastructure resource plan for initiating the project start-up.

vii. The student will be trained to leverage the emerging new technologies prevailing in the ecosystem, which can synergise the product or service with the customer. The student should be directed to review applicable technologies and accordingly develop Intellectual Property Rights to protect their idea, product, or business model from competition.

viii. Tools for start-up progress evaluation to identify any deviations from the initial idea and ensure equity, efficiency, effectiveness, adequate satisfaction, highest consumer preference, public interest and public responsiveness and sustainability in the project to be developed. The prospective student entrepreneur should conduct comprehensive evaluation of process, impact, outcomes, drawbacks, cost-benefit analysis, cost-effectiveness analysis, statistical studies, qualitative and ascertain the improvements needed for start-up impact.

ix. Learning pedagogies will be developed for startup evaluation, developing a contingency plan. Project analysis etc

The above policy statements can be modified if required keeping in mind the benefits of society, students, institution, and innovators.

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