

H.K.E.SOCIETY'S

**POOJYA DODDAPPA APPA COLLEGE OF ENGINEERING
KALABURAGI, KARNATAKA, INDIA**

PDACEK INNOVATION & ENTREPRENEURSHIP POLICY

*(Advisory and a Guiding Framework for Innovation and
Startup for Faculty, staff and Students)*



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PDACEK INNOVATION AND ENTREPRENEURSHIP POLICY CELL

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Foreword by President and Principal



**Dr. Bhimashankar
C. Bilgundi**

President

The Hyderabad Karnataka Education (HKE) society founded by Late Shri Mahadevappa Rampure, a great visionary and Educationist. I feel proud to be the President of the prestigious Hyderabad Karnataka Education Society, Kalaburagi. The Society is established in the year 1958 with a motto to “Empower Education” and aims to deliver the quality education to the people of Hyderabad Karnataka Region, being the only Educational Society in this region with 49 educational institutions that spread over the State. The Society is striving hard to uplift the educational aspirants and cater the education in diverse fields with prominence for Medical and Engineering Sciences. HKES claims to be rich in commitment, to harness knowledge through hard work and integrity. This venture will pave way for more committed individuals. The most important asset of any institution is its committed faculty and research activities. We have ever been fortunate to have good teachers and researchers who continue to equip and empower themselves to deliver their knowledge and experience to the best of their ability. Various activities have been initiated with special focus on Startups, as these sectors have the potential to solve the social and economic issues through innovative ideas and generate a plethora of employment opportunities.

Innovation and Entrepreneurship Policy of PDACEK has been prepared keeping in view the everchanging demands of society and industries. Various initiatives such as Incentives for innovation, formation of Incubation Cells, Seed funding, Faculty and Student startups and IPR awareness, have been provided in the Policy. In line with the PM’s ‘Startup India Policy’, this policy aims to foster entrepreneurship and promote innovation by creating an ecosystem that is conducive for growth of Startups. Further, I am sure it will create an innovative ecosystem in PDACEK and encourage young talent to build Startups with their creativity and skills to be Job Creators rather than Job seekers.



**Dr. S. R. Mise
Principal**

Poojya Doddappa Appa College of Engineering, Kalaburagi, is the first institution established by the H.K.E. society in 1958. The college is celebrated its golden jubilee year, setting new standards in the field of education and achieving greater heights. Currently, the total student intake is 980 and PG level 193. There are 11 undergraduate courses, 10 post Graduate courses and 13 Research centers, established in Civil Engg., Electronics & Communication Engg, Industrial & Production Engg, Mechanical Engg, Electrical Engg., Ceramic Cement Tech., Information Science & Engg., Electronics & Instrumentation Engg., Automobile Engg., Computer Sc. and Engg., Mathematics and Chemistry. All the courses are affiliated to Visveswaraya Technological University, Belgaum. Institute is awarded with Bharatiya Vidya Bhavan National Award for an Engineering College having Best Overall Performance for the year 2017 by ISTE. The Goal of PDACEK, is to spread the technical education across the masses of this region and also at National and Global levels.

PDACEK provides excellent research infrastructure, access to markets, Mentor Network, Patent Protection as a basic ecosystem for Entrepreneurs. “Innovation & Startup” policy has been prepared to capitalize from the opportunities available and create a conducive environment for startups.

By the virtue of provisions made in the policy, PDACEK would help “Innovators and Startups” through strong network of incubators and various funding agencies. Emphasis will be given on research infrastructure augmentation, Seed funding, and Regulatory initiatives, to spur the industry relevant innovation and startup drive at PDACEK.

I firmly believe that by the launch of this policy, a compatible ecosystem would develop that would promote innovation and startup culture among faculty, staff and students.

Preamble

The Ministry of Human Resource Development in 2019, released the National Innovation and Entrepreneurship Policy 2019 for students and faculty of Higher Education Institutions (HEIs). The Policy is in line with the focus of Central Government on entrepreneurial projects. The framework was created to enable the institutes to actively engage students, faculties and staff in innovation and entrepreneurship related activities. The Guidelines on National Innovation & Startup policy 2019 were published to provide required direction and support in handling, Innovation Startup and Intellectual Property rights related issues.

The framework designed facilitate Ministry of Human Resource Development in bringing uniformity across HEIs in terms of Intellectual Property ownership management, technology licensing and institutional Startup policy, thus enabling creation of a robust innovation and Start up ecosystem across all HEIs.

Innovation and Entrepreneurship must emerge as one of the focal points of today's education system with focus on creation of economic hubs so that the nation aspires to become a five trillion-dollar economy in the near future. To achieve this milestone, systems and mechanisms must the evolved to convert the present demographic dividends into high quality technical human resources, which could eventually create wealth generation hubs through Startups and entrepreneurship.

PDACEK is keen to harness the potential of young entrepreneurs by providing the necessary policy push and maximum convergence by linking the policy with the larger perspectives of MHRD, Government of India initiatives including Digital India, Make in India, Standup & Startup India and Skill India. At this juncture, when Government of India is strongly pursuing the goal of creating an enterprising India, PDACEK also need to take initiative on its part to reinforce these initiatives by creating the enabling atmosphere;

The core objective of this policy is to build a holistic and sustainable ecosystem to support innovation and budding entrepreneurs at every stage.

Vision:

"To create a sustainable research and innovation ecosystem in the institute for creation of successful entrepreneurs."

Mission:

- **Creating entrepreneurship awareness amongst the stake holders.**
- **Supporting applied research and innovation through well developed research infrastructure.**
- **Promoting the stake holders in setting up technology driven enterprise.**

Short term Objectives

1. To Promote Innovation, Creative and Design Thinking.
2. To Organize Seminar, Workshops and Training Programmes for building entrepreneurial culture and to spread awareness regarding IPR related activities.
3. To Support students to prototype their ideas.
4. To facilitate incubation for faculty/staff driven start-up and student/Alumni start-up.
5. To Enhance the Institute-Industry Interaction Cell activities, by associating with DST, CII, MSME and other academic institutions.
6. To establish strategic partnership linkage with
 - (a) Entrepreneurship Development Institute of India (EDII).
 - (b) National Innovation Foundation (NIF) of India to submit ideas and apply for schemes.
 - (c) Procure fund from AICTE for Entrepreneurship Development Cell.

Long Term Objectives:

1. To establish Technology /Business Incubators / Accelerators in each of the different sectors.
2. To facilitate Venture Capital funding.
3. To encourage/facilitate/incubate at least 10 innovative Technology Solutions in sectors like Health Care, Agriculture, Clean Environment, Advanced Computing and Sustainable Materials.
4. Commencement of Masters/MBA programs in Entrepreneurship.
5. To provide a platform for students to develop innovative products with global recognition and generate business opportunities.
6. To improve quality of research work to attain patents which can be commercially used in production.
7. To generate revenues through consultancy work and student start-ups.

STRATEGIES

This Policy document recognizes the fact that the seeds of Entrepreneurship and innovation capabilities in faculty and students must be nurtured in Academic Institutions. It is need of the hour to develop a culture that produces innovators who dream of an original idea and pursue till fruits of innovations are reaped. PDACEK would therefore work towards creating such an ecosystem using strategies in alignment with few Government initiatives.

The PDACEK Innovation and Entrepreneurship Policy is also supported by PDACEK Research Promotion Policy (Annexure-I), PDACEK IPR Policy (Annexure-II) and PDACEK Code of Ethics (Annexure-III).

Initiatives by Government of India

Initiative	Commencement	Description
National Innovation & Startup Policy 2019	September 2019	The National Innovation and Startup Policy 2019 for students and faculty of Higher Education Institutions (HEIs) will enable the institutes to actively engage students, faculties and staff in innovation and entrepreneurship related activities. This framework will also facilitate Ministry of Human Resource Development in bringing uniformity across HEIs in terms of Intellectual Property ownership management, technology licensing and institutional Startup policy, thus enabling creation of a robust innovation and Start up ecosystem across all HEIs.

Entrepreneur and Startup Policy 2020

Make in India	September 2014	The intent of the campaign is to attract foreign investments and encourage domestic companies to participate in the manufacturing, thereby contributing to the country's growth story. To promote manufacturing sector, government is giving impetus in the form of single-window clearances, minimal procedures & cutting out of any redtapism to set up businesses.
Standup India	August 2015	The campaign aims at promoting entrepreneurship among women and scheduled castes and tribes. Some of the salient features include: <ul style="list-style-type: none">Loans under the scheme would be given for Greenfield projects in the non-farm sectorIntention of the scheme is to facilitate at least two such projects per bank branchThe scheme is expected to benefit at least 250,000 borrowers in 36 months from the launch of the scheme.
Digital India	July 2015	The vision of the program is to transform India into a digitally empowered society and knowledge economy. The program aims to ensure that government services are made available to every citizen through an online platform. Private sector has committed funds at the launch of this initiative to fund new ventures, representing a huge business opportunity for startups.

Micro Units Development Refinance Agency (MUDRA)	April 2015	<p>The Indian government launched Mudra Loan to boost the growth of small businesses, manufacturing units and small entrepreneurs.</p> <p>The bank would provide credit facility of up to INR 50,000 to small businesses, loan of up to INR 5 lakh to little bigger businesses and loan of up to INR 10 lakh to the MSME sector at low rates.</p> <p>In January 2016, the Union Cabinet gave approval for the conversion of MUDRA Ltd to MUDRA-Small Industries Development Bank of India (SIDBI) and for the creation of a credit guarantee fund for MUDRA loans. The MUDRA scheme is expected to benefit 1.73 crore people.</p>
Karnataka Science and Technology Promotion Society (KSTePS)	2013	<p>Karnataka Science and Technology Promotion Society (KSTePS) is an autonomous organization of Department of Science and Technology (DST), Govt. of Karnataka established under the Societies Registration Act 1960 in 2013. KSTePS aims at serving as a mechanism for supporting the preparation and implementation of policy initiatives of Department of Science and Technology and act as a nodal agency in channelizing the funding and coordinating the programmes of the Department across the State. It has also been entrusted to identify priority areas of science and technology, which are useful for long term development of the State towards developing core competency in such advanced areas.</p>
New Age Incubation Network (NAIN)	Startup Policy 2015-2020	<p>Initiation of Government of Karnataka for setting up of incubation centers. In this scheme the selected engineering institutions would be assisted to establish an incubator in the given discipline and encourage student projects. All such incubators would be networked and connected to a common portal to facilitate exchange of thoughts, ideas and collaboration across institutions and disciplines. All selected institutions would be graded on the basis of Key performance indicators. Financial assessment will be provided for three years to the selected institutions for setting up the incubator and other activities. Institutions that excel would be further supported for another two years.</p>
India Aspiration Fund	August 2015	<p>The finance minister also announced the India Aspiration Fund to encourage the startup ecosystem and allocated INR 400 crore to various venture funds. He also launched another program called SMILE (SIDBI Make in India Loan for Small Enterprises) with an allocation of INR 10,000 crore. The objective of the scheme is to offer soft loans in the form of quasi-equity and term loans on soft terms to MSMEs.</p>
Startup Action Plan	January 2016	<p>It is an initiative of the Government to build a strong eco- system for nurturing innovation and Startups in the country. The action plan covers three aspects – simplification and handholding; funding support and incentives; and industry- academia partnership and incubation.</p>

Focus Sectors:

PDACEK Innovation and Startup Cell shall have following focus sectors:

- 1) Health care
- 2) Agro-tech
- 3) Clean environment
- 4) Advanced Computing
- 5) Sustainable materials

PDACEK works on a holistic following four pillars of the policy, for building an Entrepreneurial mindset and learning environment to Learn, Collaborate and Socialize.

1. Infrastructure.
2. Funding.
3. Regulatory Acts.
4. Enablements for Faculty and Student Entrepreneurship.

1. INFRASTRUCTURE:

Infrastructure will be key to the growth of startups. Innovation and incubation does not limit itself to Information technology sector alone but has its scope in all the sectors including agriculture, energy & environment, sustainable materials and Health Care, which are currently not tapped optimally. For this PDACEK aims to develop world-class physical infrastructure in the Campus that will provide conducive environment for ideas to originate, scale- up and see business. Already there are 13 research centers whose resources will be optimally tapped for innovation activity.

● PRE-INCUBATION CENTRE

PDACEK will establish a pre-incubator in the given sector and encourage student projects. All such incubators would be networked with external Incubators to facilitate exchange of thoughts, ideas and collaboration across institutions and sectors. PDACEK will encourage students to do intern with start-up incubators recognized by the State Government to do their mini-projects or summer projects or internships.

● TRAINING CENTRES

PDACEK has initiated a number of measures to improve the start-up ecosystem in the Campus. PDACEK has established Entrepreneur Development Cell and State Government funded New Age Incubation Center and Industry supported Bosch-Rexroth Center for Competence for Automation Technologies for imparting training to students and also internship in acquiring necessary entrepreneurial skills.

It is aimed to expand the scope of the training centers to also facilitate mentoring support in business and technology plans, networking of business resources, entrepreneurship cum skill development, identification of appropriate technology, hands on experience on Projects, Projects/ Products selection, project report preparation, credit facilitation, seed capital assistance, marketing assistance, professional assistance to make the enterprise successful. Some specific infrastructure such as industry supported innovation lab is established giving access to equipped laboratories, testing and demonstrating facilities

Training & Coaching: The idea here is to train start-up minds with some real-time scenarios wherein, they will develop skills to tackle specific challenges, for example; technology commercialization, presentation/pitch skills, human resources, identifying market opportunities, and customer relation. External experts and/or experienced entrepreneurs will be appointed to act as a mentor and coach during

the incubation phase. The mentor is also involved to provide support in obtaining the essential knowledge about the product and the market to be addressed:

- a) Business Support: Guiding is one factor that can boost start-up ecosystem in right direction. Every incubation programme also gives business support to assist the start-ups in managing their future market and business related issues. A start-up can look up for guidance in business strategy development, sales and marketing, or web design. Another important service is legal services that include intellectual property rights of the new product, the establishment of the new company as a legal entity and on regulation compliance.
- b) Mentoring & Training: In order to provide mentoring for priority issues such as fundraising, scaling, recruitment and product interface, Incubators data base shall be provided by PDACEK
- c) Assistance for participating in Fair/Exhibition: The Industry association/Incubators leading a delegation of startups to National and International Fair/Exhibition or for organizing such fair/exhibition/seminars would be supported by PDACEK annually by providing the facility or by encouraging Faculty and student participation.
- d) Technology Entrepreneurship Programme: PDACEK in association with Government of Karnataka (NAIN) support 10 student innovation projects and also fund for participating in training programs.
- e) Startup Competition assistance: To encourage entrepreneurship culture among colleges, State Universities & Central Universities based in the region PDACEK to organize such startup competition fest annually.

2. FUNDING:

The predominant model of startup financing in the State is debt financing and it is a big burden on the entrepreneurs. Equity financing is obviously entrepreneur-friendly and forms an integral part of the new age startup ecosystem.

- I. **Seed Funding:**
A Seed Grant up to 1% of annual budget of the institute shall be provided for validation of idea, prototype development, assistance towards travelling costs and carrying out field/ market research/ skill training/ marketing and initial activities to setup a startup etc.
Seed funding to startups would be routed through implementation Committee. Student would apply for the grant to pre-incubation center and in turn would forward the case to the Implementation Committee. The Implementation Committee would further give its recommendation & accordingly sanction the grant on merit of the idea.
- II. The Institute would also reach out to external funding agencies of 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 would be encouraged.
- III. To support technology incubations within the institute, the Institute will approach private and corporate sectors to generate funds, under Corporate Social Responsibility (CSR) as per Section 135 of the Company Act 2013.
- IV. Institute would also rise funding through sponsorships and donations.
- V. Institute would actively engage alumni network for promoting Innovation & Entrepreneurship and invite them to angel funding into the Start-ups as well.

Resource mobilization plan for pre-incubation, incubation infrastructure and facilities are framed with expert members.

3. REGULATORY ACTS:

Awareness on Regulatory Framework:

Starting up a business involve getting various stages of departmental approval and clearances. Most of the startups are unaware of the complex policies and regulatory framework, which may hinder their regular operations. Therefore, it is imperative for PDACEK to provide support /awareness on these following Acts:

- i. The Factories Act, 1948.
- ii. The Maternity Benefit Act, 1961.
- iii. The Shops and Commercial Establishments Act, 1958.
- iv. The Contract Labour (Regulations & Abolition) Act, 1970.
- v. The Payment of Wages Act, 1936
- vi. The Minimum Wages Act, 1948.
- vii. Payment of Gratuity Act, 1972.
- viii. Child Labour (Prohibition & Regulation) Act.

4. ENABLEMENT'S FOR FACULTY AND STUDENT ENTREPRENEURSHIP

1) **Incubation Support:** Pre-incubation & Incubation support will be offered to the start-ups by students and faculty for a period of one year at the initial stage which can latter after the approval of expert committee can be extended. However, in case the institute doesn't have a dedicated facility/ infrastructure, it enables incubation facilities in other HEIs in order to facilitate access to their students and faculty.

2) **Attendance:** Students involved in setting up of startups shall be given a relaxation in attendance up to 20%.

3) **Semester/Year Break:**

- **Students:** The institute would allow their students to take a semester/year break (or even more depending upon the decision of review committee constituted by the institute) to work on their start-ups and re-join academics to complete the course.

Student entrepreneurs may earn academic credits for their efforts while creating an enterprise. Institute would set up a review committee (on case to case basis) for review of start up by students, and based on the progress made, it may consider giving appropriate credits for academics.

- **Updating Institute Syllabus:** The Academic Council will be advised to upgrade the course curriculum to be in tune with the emerging technologies and align to the requirements of the Startup sector, and to introduce courses in design thinking, skill training and entrepreneurship development.
- **Mandatory apprenticeship:** PDACEK has initiated a scheme of internship/apprenticeship in industries, Government departments or other enterprises under the aegis of Industry department.

□ **Faculty:**

Faculty upgradation: Faculty members are encouraged to equip themselves by undergoing FDP's by EDI, TEQIP sponsored programs, Workshops and technology fair to improve on the entrepreneurial skills.

The institute will allow faculty 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. Institute would consider allowing use of its resource to faculty/students wishing to establish start up as a fulltime effort. The seniority and other academic benefits during such period may be

preserved for such faculty.

4) **Mentoring:**

The mentor program will be for the time period of 3-6 months or by mutual agreement. The mentors would be allocated, based on the entrepreneurs' needs identified through the basic gap analysis. Mentor teams and entrepreneurs will agree to meet in person or connect by Skype or teleconference for a minimum of 2 hours over the mentoring period. The relationship can be extended or terminated upon the mutual agreement.

5) **Accommodation:** The institute would explore provision of accommodation to the student entrepreneurs within the campus for some period of time, depending upon availability of accommodation.

6) **Physical Incubation:**

All the Pre-Incubation/Incubation facilities would be accessible 24x7 to students, staff and faculty of all disciplines and departments across the institution.

- ✓ The institute infrastructure in form of machines, equipment's, tools, testing facilities and other resources available in various departments, workshops, laboratories, centers etc. would be utilized for pre-incubation and incubation for nurturing innovators and start-ups, without hampering the normal academic schedule of the departments and centres.
- ✓ The institute would 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 below:
- ✓ In return of the services and facilities, institute would take 2% to 9.5% equity/ stake in the startup/company, (on case to case basis) 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 might 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 would 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.

7) **IPR Facilitation:**

One of the important mandates of PDACEK is to bring excellence to education, research and innovation, however, it is equally important that protect the Intellectual property. Therefore, it is important that the information with regards to rights over intellectual property is disseminated at the earliest. This policy should be applicable to all inventions and innovations belonging to PDACEK and covers all different classes of Intellectual Property - Patent, Copyright, Design, Registration, Trademark, and Confidential Information.

The IPR provisions are created to provide a conducive environment leading to development of intellectual property. When institute facilities / funds are used substantially or when IPR is developed as a part of curriculum/ academic activity, IPR would be jointly owned by inventors and the institute. Inventors and institute 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 :

- a. Upfront fees or one-time technology transfer fees
 - b. Royalty as a percentage of sale-price
 - c. Shares in the company licensing the product
- The institute would 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, either in terms of equity in the venture and/ or license fees and/ or royalty to obviate the early stage financial burden.

- 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.
- If there is a dispute in ownership, a minimum five member committee consisting of two faculty members (having developed sufficient IPR and translated to commercialization), two of the 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.

8) Collaborations and Knowledge Exchange:

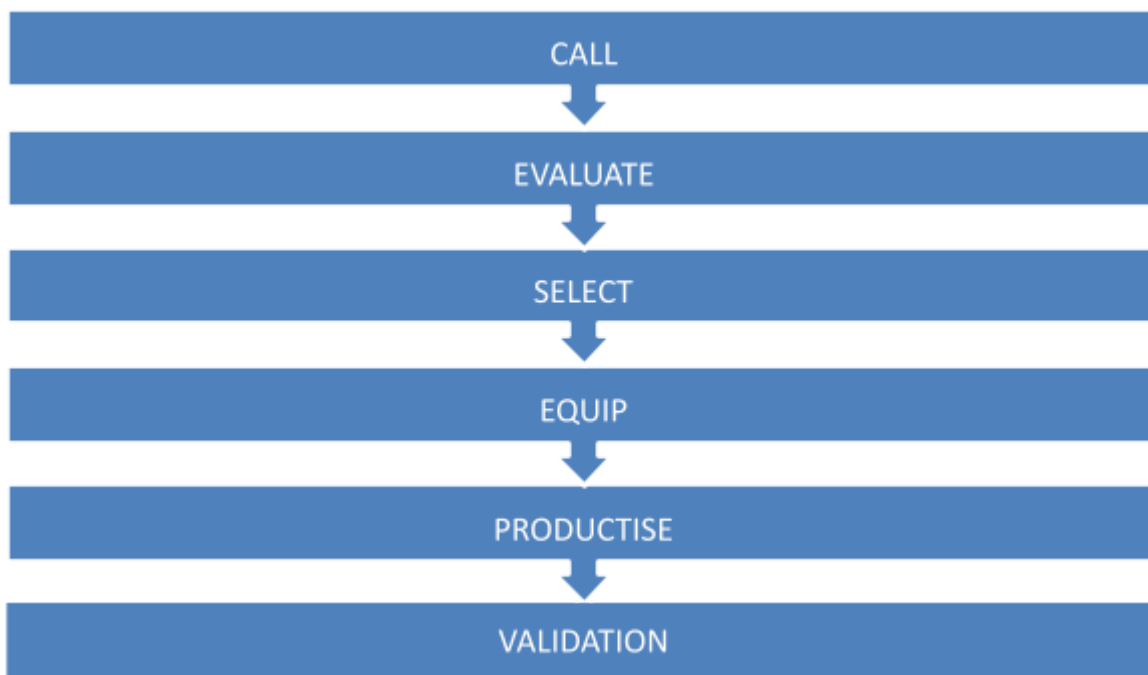
The Institute facilitates to collaborate and forge alliances with each and every important ecosystem member to result in the best of synergies.

The Incubation Process for Startups

As per guidelines of MHRD, Pre-incubation and incubation facilities for nurturing innovations and startups are established. The processes and mechanisms for nurturing of Startups by alumni and potential start up applicants even from outside the institutions are encouraged.

The "PDACEK Innovation and Startup Cell" is envisioned to be the hub of innovation and entrepreneurship in the region. It shall not remain confined to the students and faculty of PDACEK, but also engage students at other colleges and universities besides industry and any individual having a need for incubating the idea. The incubation services shall not remain confined offering the core incubation services helping to productize the idea. The "PDACEK Innovation and Startup Cell" offer more than necessary exposure and connect with the relevant stakeholders to increase the chances of the idea becoming a product and further a commercial entity.

The 'incubation' step is a process of series of steps that encompass the overall incubation model proposed at PDACEK. The model proposed is as follows:



- A. **Call:** An outreach programme shall be designed giving preference to Institute Faculty and students. Students are encouraged to apply at third year level.
- B. **Evaluate:** At the time of calling for ideas, Institute shall prescribe a format/template for the business plan essentially to ensure that all the major information required to evaluate an application is provided. There shall be two rounds of evaluation before the application is short listed for the selection process.
- First Round:** The first round of evaluation shall be done by the Departmental committee subject to random verification of the Expert Committee.
- Second Round:** The Evaluation at the second round shall be done by Expert Evaluation Committee.
- a. The committee shall evaluate the proposals received and as many as the best of these shall be recommended for selection to achieve the minimum criteria of having at least 3 proposals to select from, for incubation.
 - b. This shall be done immediately after the completion of ‘First Round’ of validating the business proposals received.
- C. **Select:** Only the proposals having passed through the Evaluation stage shall be considered for Selection. Selection Experts Group shall be the final selection committee.
The selection of an idea by the jury shall mean that the idea satisfies all the parameters including technical, commercial, know-how and others defined by various stakeholders. At this stage “PDACEK Innovation and Startup Cell” shall issue a selection letter to the incubatee that needs to be formally accepted within stipulated time.
- D. **Equip:** The Equip stage is more about empowering the incubatee. Besides, providing the incubation space allotted to the incubatee, the access to necessary resources of Institute shall also be granted. Based on their one-to-one interactions and agreement to work together, a mentor shall be mapped with the incubatee. Similarly, other services and experts as may be facilitated by Greenovator shall also be made available to the incubatee.
- E. **Productise:** Before the actual productisation kicks off, the incubatee shall have to submit a detailed project plan to the “PDACEK Innovation and Startup Cell”. This shall calendarise the activities that are planned to be undertaken over the period of incubation and the resources / services that shall be put to use in due course.

A monthly status report shall be submitted by the incubatee to the Institute management to keep a track of the project and justify the utilization of resources. However, if the scenario warrants, the incubatee may have to reveal all the details for which Institute could enter into an NDA (Non Disclosure Agreement).

- F. **Validation:** Once a breakthrough is achieved as per expected lines, the incubatees along with their mentor(s) and other experts involved shall be asked to present the achievements before the board of experts. This board of experts shall validate the genuineness of the claim in line with the product development details submitted in the business plan and reserve the right to declare an incubation a success or otherwise. If the board shall be of the opinion, that the incubation should be granted an extension as further research and development would result in a remarkable value addition, the incubatee shall be re-admitted for a period of not more than 3 months. Any further extensions shall be recommended to the governing board of the Institute.

ENTREPRENEURIAL IMPACT ASSESSMENT

Impact assessment for pre-incubation, incubation, entrepreneurship education will be formulated with well defined parameters. The information on impact of the activities will be actively used while developing and reviewing the entrepreneurial strategy.

Annexure-I

PDACEK RESEARCH PROMOTION POLICY

The Mission of Poojya Doddappa Appa College of Engineering, Kalaburagi (hereinafter PDACEK) is to promote research and innovation among faculty, staff and students. PDACEK has a Research Board that facilitates and monitors research activities. The total R&D is organized into six categories:

- I. Academic Research
- II. Sponsored Research
- III. Extension and Extramural
- IV. Excellent Centres
- V. Consultancy
- VI. IPR

Research area is monitored by the R&D Committee which reports the progress and prospectus to Dean R&D. The R&D committee of PDACEK takes all strategic decisions, corrective actions, preparing, updating policies as per the Government and Affiliating University regulatory norms.

I ACADEMIC RESEARCH POLICY:

- a) All eligible faculty shall register for doctoral program
- b) Faculty of each department shall conduct research in focused areas of research identified by central and state governments in addition to research areas preferred by the faculty.
- c) Faculty publication in either WEB of science or SCOPUS indexed journals are appreciated with appropriate incentives.
- d) All publications and research papers of faculty have to go through plagiarism- check.
- e) As per the AICTE approved API norms the PDACEK fixed the number of articles to be published by faculty of different cadres.
- f) The B.E and M.Tech projects shall be research focused. Every M.Tech project shall lead to at least one research publication in a journal indexed in SCOPUS or WEB of SCIENCE and also under graduate students encouraged for publications of similar standards.
- g) Faculty are given the option to pursue research work leading to a PhD degree in reputed institutions under Quality Improvement Programme(QIP)

II. SPONSORED AND INTERNAL RESEARCH RELATED POLICIES:

a) Every doctorate shall apply for a minimum of one government funded project.

- b) Every faculty shall apply for internal project with an aim to apply for external funding. The required seed money for internal projects is provided by the Institute.
- c) The Institute shall provide the basic infrastructure required to conduct either internal funded or external funded research.
- d) All departments shall strive for recognition by National agencies through schemes/funding such as DST, VGST, AICTE etc.
- e) Faculty are encouraged to identify inter-disciplinary research in their chosen field of research.
- f) The faculty of all the departments of the Institute shall tie-up with industries and corporate bodies to undertake funded research in emerging areas and industry relevant areas.
- g) The Institute shall create special research groups to concentrate research in government listed areas.
- h) All innovative projects of faculty are earmarked for filing patents on successful completion, suitable recognition and remuneration is given to those faculties with patents.
- i) Meritorious research work by faculty is awarded with monetary incentives.
- j) All research conducted shall be covered by IPR and copyright protected.

III. EXTENSION AND EXTRAMURAL RESEARCH AND ACTIVITIES

- a) Eminent and enterprising professionals from the industry are invited to take up joint resource projects with the Institute faculty.
- b) The faculty of the PDACEK are encouraged to select society specific problems and conduct research and provide feasible solutions. Such research topics could include problems related to chronic diseases, women and child welfare and protection and health care etc.,
- c) The Institute shall organize educational programmes relevant to a community, society outside the organization.
- d) The Institute faculty shall visit at least one village in the neighbourhood, investigate the problems, and provide the solutions using technology expertise.
- e) Students are encouraged to participate in the extension and outreach programmes organized by the Institute.
- f) PDACEK shall conduct programmes aimed at developing trade skills.
- g) The faculty of PDACEK are permitted to act as resource persons in the events such as workshops and conferences conducted outside the Institute.
- h) PDACEK encourages its senior faculty to train industry personnel.
- i) The Institute faculty are permitted to work in other educational institutions as part of faculty exchange programme.

IV. CENTRE of EXCELLENCE:

PDACEK shall develop Centers of Excellence in the thrust areas of research which shall be open to faculty, students and industry persons to conduct research.

V. CONSULTANCY:

1. INTRODUCTION

Consultancy is well recognized as an effective way for technical institutes to disseminate knowledge and make an early and direct impact on society. However, the balance between consultancy and the traditional roles of the academic staff needs to be managed and the interests of the Institute must be protected. This Policy provides provisions for conducting consultancy to ensure that consultancies undertaken by the faculty are consistent with the Institute's strategic and operational objectives.

PDACEK is committed to making its expertise available through service to industry, commerce, government, professions, and research organizations.

2. THE POLICY

All Research and Non-research consultancies as described in this Policy are governed by the following guiding principles:

- (a) There should be demonstrable benefit to the Institute from the consultancy through income, enhanced outreach, and expanding the expertise of the faculty members.
- (b) The Consultancy must not be in conflict with Institute policies including those governing employment.
- (c) The Consultancy must not be in conflict with the functions, objectives or interests of the Institute or damage the Institute's reputation.
- (d) All Consultancies are required to include overheads.
- (e) Faculty members shall not undertake external research activities where no formal agreement has been authorized by the Institute unless they are on leave without pay, approved by the Dean concerned. Such faculty may not use their PDACEK affiliation or academic title when providing research services that are not approved by the Institute.

2.1. PDACEK Research Consultancy

A Research Consultancy exists where a faculty member provides research skills or expertise in return for remuneration from an external funder. A Research Consultancy may be the outcome of a tender or an individual negotiation.

2.2. PDACEK Non-research Consultancy

Non-research Consultancies include non-research activities performed under contract for a third party and also include the provision of professional services to external agencies for a fee. This would include, but not be limited to, routine laboratory and other testing of materials, devices or products, design and stability analysis and analysis of data etc.,

2.3. Private Consultancy

In Principle a faculty or staff member is not supposed to undertake a Private Consultancy unless it is approved by the Institute.

3. FACULTY ENTITLEMENTS

The PDACEK allows its faculty to engage in Research, Non-research and/or Private Consultancies provided they do not interfere with the discharge their duties. Consultancies shall be undertaken only with the approval from the Institute. No limit is placed on earnings. However there is a limit on the time spent on Consultancy.

3.1. Academic faculty may spend one day per week on approved Consultancies, with a maximum of 48 days per year. Variations to this time commitment require the approval by the Institute. A lesser time commitment may be approved when the proposed Consultancy interferes with the discharge of responsibilities.

3.2 Benefits of Institute Consultancy

PDACEK provides the following benefits to faculty and staff undertaking Institute Research or Non-research Consultancies:

- (a) Protection under the Institute's professional indemnity and public liability insurances, subject to the terms, conditions and exclusions within those policies.
- (b) The faculty or staff member will be protected under the terms of the current Insurance Policy

held by PDACEK in the event of a claim against the faculty or staff member undertaking the Consultancy or Grant (provided that the claim is not as a result of fraudulent, dishonest, criminal, wilful or malicious acts by the staff member).

- (c) Access to the Institute's financial management processes to support and enable invoices to external organizations for funding and expenditure of project costs.
- (d) Access to the Institute's resources such as technical and administration staff equipment and telecommunications, subject to approval by the Institute.
- (e) An entitlement to use the Institute name and reputation, providing it is not brought into disrepute.
- (f) Ability to make reference to their Institute position and title in connection with the work.

The PDACEK does not extend these benefits to Private Consultancies. Any Consultancy conducted by a faculty or staff member that accesses any of these benefits in the course of undertaking the work will be regarded as a Research or Non-research Consultancy and subject to the conditions of this Policy.

3.3. The revenue generated from the consultancy project is shared by the faculty and staff member and the Institute as approved by the Institute norms after deducting the overheads and all other expenses met by the Institute.

4. APPROVAL

All Institute approved Consultancies are required to be approved and managed in accordance with this Policy, associated documents, and other Institute policies. Applications to conduct Consultancy are required to be approved through.

Exemptions and Variations

Exemptions to the above and variations to the standard overhead charge must be determined at the time of application, explicitly noted on the Research Funding/Consultancy Application coversheet, and approved by the relevant Institute Officer.

5. CONFLICT OF INTEREST

Engagement in consultancies must not create a conflict of interest, perceived or actual. Any conflict of interest, actual or perceived must be reported to the relevant Institute Officer for resolution. A conflict of interest may arise where an employee engages in consultancies at the expense of the Institute's interests or the interests of other employees or students.

An example of a potential conflict of interest includes, but is not limited to:

- financial or non-financial interests;
- teaching or course work for another institution;

Full-time members of the PDACEK faculty/staff should not accept regular Consultancies with other institutions without first obtaining the permission of the delegated Institute Officer.

VI. IPR:

Any intellectual property arising from any Research and Consultancies will be governed by the Intellectual Property Policy of PDACEK.

Annexure-II
PDACEK IPR POLICY

One of the principal mission of P.D.A.College of Engineering, Kalaburagi (hereinafter PDACEK) is to develop a fostering environment to faculty, staff and students for doing innovative projects. Accordingly the institute has been encouraging students and faculty to innovate through research work such that it qualifies for patenting and protection. PDACEK also recognizes that the efficient management of research activity and related intellectual property rights (IPRs) would strengthen the institute and provide a strong foundation for growth of human resources, research projects and technologies. To sustain the focus and to support of these goals, PDACEK is providing policy guidelines for inventions, copyrightable works, trademark and other related intellectual property rights arising from the activities of its faculty, staff, students and other who use PDACEK resources.

STATEMENT OF POLICY:

A. Inventions

1. **Principle of Ownership:** The PDACEK shall own each and every invention conceived, in whole or in part, during the course of any employment, research or scholarship activity of any PDACEK students, Research scholars, faculty, relating to the use of PDACEK resources.
2. **Invention Disclosure:** All original inventions shall be disclosed promptly by the inventors on prescribed invention disclosure form and assign each invention to the PDACEK. The inventors shall refrain from disclosing any invention of any third party unless appropriately authorized by the PDACEK or its designee. In case of joint inventions, by multiple inventors, the invention disclosure form shall include names of all contributing inventors. The form shall constitute a full and complete disclosure of the invention subject matter and the identity of all individuals participating there in. The invention disclosure form shall be submitted to Dean R&D, who would provide his recommendation to the Principal and process further for registration / filing with patent office.
3. While no public disclosure of the invention is permitted prior to registration/ allocation of priority date from patent office however in doubtful (non-patentable) cases the inventors/researchers should get the recommendation from the Dean (R & D) for approval by the principal PDACEK to this effect. All relevant documents data, background material shall be finished by the inventors/researchers along with such requests.

B. Copyrightable Works:

1. **Principle of Ownership:** PDACEK shall own the **copyrights** to each copyrightable work conserved in whole or in part during the course of employment, research and or scholarship activity of any of PDACEK students, research scholar, faculty, utilizing PDACEK resources. The copyrights in categories of **instructional and scholarly copyrightable works** are not covered under this ownership and PDACEK permits such authors to register and retain such copyrights.
2. **Disclosure of copyrights with potential commercial value:** Each author of a copyrightable work that is PDACEK owned according to the foregoing principle of

PDACEK ownership and that may have potential commercial value shall promptly disclose the copyrightable work in writing to the Institute.

3. **License to PDACEK for instructional or scholarly copyrightable works:** Each instructional or scholarly copyrightable work shall by operation of this policy, be subject to a perpetual non-exclusive, royalty-free license from the author to the PDACEK to use, duplicate, and internally distribute the instructional or scholarly copyrightable work for any pedagogical, research, or educational purpose of the PDACEK, subject to attribution of original authorship and to internal academic procedures and requirements of PDACEK. The foregoing license shall be broadly construed to enable the PDACEK's efforts to preserve research integrity and prevent fabrications, falsification and plagiarism.

C. **Trademarks:** PDACEK owns all rights, title and interest in trademarks that relate to PDACEK intellectual property or relate to a program of education, service, public relations, research or training by the PDACEK.

D. **Tangible Research Property and Research Data:** PDACEK owns all rights, title and interest in tangible research property and research data developed with support from PDACEK resources. All research work with associated data including results should be **recorded in a suitable research note book** as per the guidelines available with Dean (R&D). In most instances, except externally funded research, the PDACEK allows access of PDACEK owned tangible research property or research data to PDACEK personnel at the discretion of the **Principal** (duly recommended by Dean (R&D)) for furtherance of research, innovation and similar other non-commercial purposes.

E. **Respecting others IPRs:** PDACEK through this IPR policy notifies all PDACEK students, research scholars, faculty and associates to respect IPR's owned by other and not to use IPR's owned by others for any project, research, teaching or reference. The research fraternity at PDACEK shall comply to following guideline:

Initiate and obtain appropriate authorization from the owners of such IPR's prior to use and acknowledge such use appropriately. Improper use by any PDACEK personnel, if any, would be treated as plagiarism and would be considered an offence. Principal would initiate/take necessary disciplinary and other legally required action for such offence.

F. **Administration and execution of IPR policy:** The IPR policy will be managed by Dean (R&D), PDACEK. The Principal and the Dean (R&D), PDACEK would have the authority to enforce the sections of the IPR policy and also to review and amend the sections as and when required.

G. **Commercialization of Intellectual Property:**

I. Patents:

PDACEK may pursue commercialization of the patents owned by it and any revenue from such Commercialization may be distributed as under clause-III of this section.

II. Equities of Participating Parties:

General Policy: Income derived by the PDACEK directly from the commercialization of PDACEK Intellectual Property shall be administered in accordance with this policy. It is the

policy of PDACEK to encourage and recognize the creative efforts of PDACEK personnel and to share the financial rewards of such efforts on an equitable basis. This general policy may be rescinded or amended at any time by the PDACEK, and all legally enforceable rights related to Tangible Research Property and Research Data (Intellectual Property or proceeds there from) owned presently or in future by the Institution will remain with the Institution.

III. General Principle of Division:

In most instances, Net Proceeds will be distributed according to the following formula: a) one-third ($1/3^{\text{rd}}$) to the PDACEK, and b) two – thirds ($2/3^{\text{rd}}$) to inventors comprising of PDACEK or other personnel who created the PDACEK Intellectual Property that gives rise to the Net Proceeds. Any agreement among those PDACEK personnel setting relative distribution shares among themselves shall be decided, a priori while registering the IPR. If necessary, the Principal may authorize a variance from the forgoing principles, depending upon the circumstances of an individual case, including relevant contractual arrangements and any applicable funding regulations.

IV. Re-conveyance of PDACEK Intellectual Property: Intellectual Property may be re-conveyed to the PDACEK personnel who disclosed it, upon their request to the Principal, PDACEK, if the re-conveyance would not:

- a. Violate any legal obligations of or to the PDACEK,
- b. Limit appropriate PDACEK uses of the materials,
- c. Create an unmanageable conflict of interest for the inventor/creator,
- d. Have significant commercial or public value which may best be exploited by the PDACEK itself or otherwise conflict with PDACEK goals or principles.

H. Works of Independent Contractors: A written agreement will be documented from independent contractors such as website developers, architects, building contractors, interior decorators, special software developers, etc. that ownership of inventions /Copyrightable works made in the course of PDACEK retention will be assigned to the PDACEK.

I. IP generated during execution of (through) externally funded projects: For the IP generated through externally funded projects such as sponsored research programs, the ownership and sharing of IP will be done on case-by-case basis, depending on nature of project, funding and other factors. All IP generated through these Projects will be documented and communicated to the Dean (R&D), and PDACEK. In cases where the ownership is assigned to the sponsoring party; PDACEK would retain a license free use of such of such IP for its teaching and research purposes.

J. Incentives and Motivation:

- PDACEK Faculty and associated research individuals shall be entitled for Incentives for publication of papers in conferences as approved by the Institute policy.
- PDACEK shall allocate budget and shall identify attorney for support in registering and retaining patents and other IPRs. Patent applications would be filed on behalf of PDACEK by appointed attorney and full charges being borne by PDACEK.

K. Miscellaneous:

- a. Designee: The PDACEK may designate Dean (R&D) PDACEK or any other representative to act for it in any respect here under.
- b. Amendments: This memorandum may be amended or withdrawn in whole or in part at any time by the Principal of the PDACEK.

Annexure-III

PDACEK Code of Ethics

The PDACEK has a policy on all sorts of Research Misconduct such as fabrication, falsification, plagiarism, or other serious deviation from accepted practices in proposing, conducting, or reporting results from research.

Scholars/faculty should ensure that they have written and submitted only original works, and if they have used the work and/or words of others, that it has been appropriately cited. Publications that have been influential in determining the nature of the work reported in the thesis/research paper should also be cited. Plagiarism takes many forms, from "passing off" another's paper as the author's own, to copying or paraphrasing substantial parts of another's paper (without acknowledgement), to claiming results from research conducted by others. Plagiarism in all its forms constitutes unethical publishing practice and deserves condemnation.

The PDACEK ensures that all submitted thesis/research papers being considered for award of degrees undergo through plagiarism detection software "Turnitin" and an Anti-Plagiarism certificate to be issued by the office of Dean for submission of thesis.