

APPROVAL OF INNOVATION AND
ENTREPRENEURSHIP
POLICY OF KRCE

The **start up, Innovation and Entrepreneurship** policy of
K. Ramakrishnan College of Engineering has been approved.



PRINCIPAL

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Samayapuram, Tiruchirappalli - 621 112.

K. RAMAKRISHNAN
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START-UP POLICY

For

Faculty, Staffs and Students

1	Summary	KRCE offers higher education in Engineering relevant to the current and projected needs of the society. The faculty, staffs and students of KRCE are always committed towards knowledge generation in the area of manufacturing, healthcare, education, logistics, social sector, urban development, agriculture, environment and ICT. The KRCE Faculty, Staffs and Students start-up policy will enable active engagement of students, faculties and staff in innovation and entrepreneurship related activities. This policy outlines the Intellectual Property ownership management, technology licensing and commercialization, thus enabling creation of a robust innovation and start-up ecosystem in the Institution.
2	Applies to	Faculty, Staff and Students of KRCE
3	Policy Development Team	NISP Coordinator: Dr. M. Maheswari Prof & Head/ECE IIC coordinator: Dr. S. Titus, Professor/ECE Dr. B. Viswanathan, Associate Prof/ECE Mr. M. Karthick, Senior Assistant Prof/ECE Mr. Albert Fransis, Start up coordinator Mr. Thiyagarajan, Alumni entrepreneur
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5	Version	KRCE STP–2020.001
6	Related Documents	(a) National INNOVATION and STARTUP Policy 2019 for Students and Faculty - MHRD,GOI www.mhrd.gov.in/www.mic.gov.in (b) Tamil Nadu start-up and Innovation Policy–2018-23 www.editn.in (c)start-up Policy–2016,AICTE–New Delhi www.aicte-india.org .
8	Date of implementation	10.11.2021

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1. INTRODUCTION

K. Ramakrishnan College of Engineering (KRCE) offers higher education in engineering relevant to the current and projected needs of the society. The faculty, staffs and students of KRCE are always committed towards knowledge generation in the area of manufacturing, healthcare, education, logistics, social sector, urban development, agriculture, environment, and ICT. To convert this knowledge in to commercial products/ process a well-defined innovation and start up policy is needed. KRCE faculty, Students have filed their innovative ideas as patents.

Tamil Nadu Startup and Innovation Policy 2018-23 aims to nurture innovation, knowledge creation, technological development, investment in R&D, infrastructure development and skilled manpower, resulting in higher growth in entrepreneurial venture in various sectors. This policy encourages:

- a) To establish Entrepreneurship Development and Innovation Councils (EDIC) headed by a qualified faculty member with the aim of guiding students towards entrepreneurship development thereby resulting in startups, entrepreneurial and innovation activities in the institute.
- b) To permit both faculty and students to establish startups based on the research project works conducted in the college.

Similarly, “AICTE Startup Policy 2016” and “The National innovation and Startup Policy 2019 for students and faculty of higher learning educational institutions” promote active engagement of students, faculties and staffs in innovation and entrepreneurship related activities.

Based on the above governmental policy guidelines, “KRCE Faculty, Staff and Students Startup Policy 2020” is developed. This policy address the

- a) Development of Entrepreneurship Cells for Innovation and Startup in the Institutes.
- b) Norms for the Faculty, Staffs and Students Startups.
- c) Intellectual Property Rights Protection and licensing.
- d) Monitoring of the policy implementation.

2. VISION, MISSION and POLICY STATEMENT

VISION: To make KRCE an Innovation hub in science and Technology and the most sought destination for startups by 2025

MISSION: To create, Support and Nurture a vibrant start up eco system in KRCE resulting in Innovation and Entrepreneurship development.

POLICY STATEMENT:

To create faculty, staffs and students driven on-campus technology startups that will add value to the social and economic growth in the state of Tamil Nadu as well as the country.

3. POLICY OBJECTIVES

The KRCE Faculty, Staffs and Students startup policy objectives are:

- a) To establish “Entrepreneurship Development and Innovation Councils” in the institute by creating infrastructure such as incubation centers, fabrication labs etc.*
- b) To encourage students to take up entrepreneurship as a preferred career choice and provide assistance for the successful launching of their start-ups.*
- c) To promote faculty and staff led startups to commercialize the products / process developed by them as per the college IPR policies.*

4. DEFINITIONS

Accelerators	Startup accelerators transform promising business ventures into reality under the guidance of mentors and several other available resources.
Angel Fund	An angel investor is a wealthy individual who invests his or her personal capital and shares experiences, contacts, and mentors (as possible and required by the startup in exchange for equity in that startup). Angels are usually accredited investors. Since their funds are involved, they are equally desirous in making the startup successful.
Co-Creation	Co-creation is the act of creating together. When applied in business, it can be used as 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.
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.
Entrepreneurial culture	A culture/practice that embodies the attributes, values, beliefs and behaviors of entrepreneurs.
Entrepreneur	An individual who has an entrepreneurial mindset and wants to make his/her individual idea successful.
Entrepreneurship	Entrepreneurship education seeks to provide students with the

	knowledge, skills, education and motivation to encourage entrepreneurial success in a variety of settings.
Fab Lab	A Fab lab is a small-scale workshop employing advanced fabrication methods. It is typically equipped with an array of flexible computer-controlled tools/kits that helps realize an entire functional prototype in-house itself.
Hackathon	A hackathon is a design sprint-like event in which computer programmers and technical architects/design engineers involved in software development, including graphic designers, interface designers, project managers, and others, often including domain experts, collaborate intensively on software projects.
Incubation	Incubation is an 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.
Intellectual property rights licensing	A licensing is a partnership between an intellectual property rights owner (licensor) and another who is authorized to use such rights (licensee) in exchange for an agreed payment (fee or royalty).
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 an idea of early prototype of their product or service.
Prototype	A prototype is an early sample, model, or release of a product built to test a concept or process.
Seed fund	Seed fund is a form of securities offering in which an investor invests a capital in a startup company in exchange for an equity stake in the company.
Startup	An entity that develops a business model based on either product innovation or service innovation and makes it scalable, replicable and self-reliant and as defined in Gazette Notification No. G.S.R. 127(E) dated February 19, 2019.
Faculty/Staff/Student startup	A start-up that is initiated by Faculty(s)/Staff(s)/ Student(s) enrolled within the academic institution.

Technology Business incubator (TBI)	TBI is an entity, which helps technology-based incubator startup businesses with all the necessary resources/support that the startup needs to evolve and grow into a mature business.
Technology commercialization	TC is the process of transitioning technologies from research labs to the marketplace.
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.
Venture Capital	It is the most well-known form of startup funding. Venture capitalists (VCs) typically reserve additional capital for follow-up investment rounds. Another huge value that VCs provide is access to their networks for employees or clients of the startup.

5. ENTREPRENEURSHIP DEVELOPMENT AND INNOVATION COUNCIL (EDIC)

Based on the guidelines of the Tamil Nadu Startup Policy 2018-2023 [1] and MHRD National Innovation and Startup Policy 2019 [2], the following action points are prescribed.

- a) Establishment of Entrepreneurship Development and Innovation Councils(EDIC) headed by a qualified Senior Professor to promote startups, entrepreneurship and innovation in the institute.
- b) Importance of innovation and entrepreneurial agenda should be promoted at the institute level through workshops, conferences, industry interaction etc.
- c) Investment for the EDIC activities must not be less than 1% of the total annual budget of the institute.
- d) Creation of an incubation center in the institute by using internal/external resources. It should be a separate entity preferably registered under Section 8 of Company Act 2013 or registered under society registration act with independent governance structure.
- e) Establishment of Fab labs / maker's space in the institute that will serve as a bridge between innovators and incubators and it should be accessible 24 x 7 to students, staff and faculty of all the departments across the institution.
- f) Provide training programs for both startups as well as other needy persons on the entrepreneurship skills to bridge the gap between industry requirement and current curriculum.
- g) Networking events must be organized to create a platform for the budding entrepreneurs to meet the investors and pitch their ideas.

6. NORMS FOR THE FACULTY, STAFF AND STUDENTS STARTUP

This policy permits faculty, staff and students to transform their ideas based on IPR owned / co-owned by them for converting into a startup company. A startup may include faculty member (s) or students or both of them together and also including faculties of other institutes or alumni or with other entrepreneurs. The following mechanisms are required for running such a company with in the institute.

For Faculty and Staffs

- a) The institute should provide space, infrastructure, mentorship support, seed funds, support for accounts, legal, IPRs etc. for the startup company owned by faculty and staff. In return for the above offered services, the institute may take 2.0 – 9.5 %equity / stake in the company.
- b) If a faculty member is an owner or co-owner of such companies and also act as the director on the board, then he/she may also play an operational role (Technical Adviser, CEO, Manager etc.,) with the approval of the institute as per the conditions given below:
 - (i) No restriction on the shares that faculty/ staff can hold, as long as they do not spend more than 20 % of office time on the startup company in the role mentioned and do not compromise in their academic and administrative work/ responsibilities.
 - (ii) Faculty must clearly separate and distinguish on-going research work at the institute from the work conducted at the startup / company.
 - (iii) Faculty must not involve research staff or other staff of institute in the activities of the startup and vice versa.
 - (iv) Faculty must not accept honorariums or gifts from the startup.
- c) In case the faculty/ staff holds the executive or managerial position for more than three months in a startup company, they should be on sabbatical leave without pay or utilize existing leave.
- d) Other faculty members may undertake projects from the company owned by a faculty member/ staffs following the institute norms of consultancy projects that prevails. Similarly, for the utilization of any testing/ characterization of product developed by the company it should be as per the norms of the institute testing charges.
- e) The IP Rights for the technology developed by the company and faculty as per the clause 6 (c) shall be held jointly by the company and the faculty concerned as per the IPR policy of the Institute.
- f) A company owned or co-owned by a faculty/ staff will normally be required to incubate at the institute incubator. However, in exceptional cases, where the faculty/ staff want to incubate outside the institute, a sufficient justification has to be provided for the approval of the institute. Decision of the institute is final and binding in this case.
- g) For the incubation of the company owned or co-owned by a faculty/ staff, evaluation should be as per the incubation policy of the existing incubator in the institute.

h) In case of selection of a faculty startup by an outside accelerator, a maximum leave of one/two year leave may be permitted to the faculty as per institute leave norms.

For Students

Institutes are requested to encourage as many startups by the students with inter-departmental and inter-institutional participation, taking note of the fact that startup planning and management requires inter-disciplinary skills. Students should be encouraged to develop entrepreneurial mindset through experimental learning by exposing them to training in cognitive skills (e.g. design thinking, critical thinking, etc.) and also by inviting first generation local entrepreneurs or experts to address young minds. Initiatives like idea and innovation competitions, hackathons, workshops, boot camps, seminars, conferences, exhibitions, mentoring by academic and industry personnel, throwing real life challenges, awards and recognition should be routinely organized. The Institute should prepare the students for creating startup through the above activities.

a) Institute may allow students to establish startup or work part time for the startups already present with the institute incubator as an intern while also studying.

b) Allow the students to earn credit for working on the innovative prototypes/business models to a maximum of 1 credit / semester certified by the incubator and approved by the concerned students department committee.

c) Students may be allowed to opt for startup in place of mini project/ summer training/seminar with the approval of concerned students department committee.

d) Students may be permitted to use the startup idea/ prototype development as their major project work for the institute academic requirements with the approval from the affiliated incubator.

e) Student startup may be permitted to use the address of the hostel or the incubator to register the company while studying in the institute.

f) Institute may exempt student startup affiliated with the institute incubator to avail maximum up to 20 % attendance in any semester. Including this grace of 20 % attendance, student should secure 75 % attendance in each subject to appear for the end semester examination.

g) Students may be allowed to undertake a semester / year break to work with startups affiliated with the institute Incubator, after completion of the 6th semester and rejoin the institute to complete the course with the approval from the institute.

h) Institute may set-up a review committee (Senior faculty in charge of EDIC, HOD of the student department, CEO of incubator and Dean / Principal of the institute) for review of the student startup to provide accommodation for the student entrepreneur within the campus for a maximum period of 6 months.

i) For the incubation of the company owned or co-owned by the student, evaluation is as per the incubation policy of the existing incubator in the institute for the seed funding / any other support required.

7. INTELLECTUAL PROPERTY RIGHTS PROTECTION AND LICENSING

Intellectual Property Rights (IPR) denotes the specific legal rights of the inventors to hold and exercise Patents, Trademarks, Copyrights, Industrial Designs, etc. IPR aims to exclude third parties from exploiting the protected subject matter for a certain period of time (normally 20 years), without explicit authorization from the right holders. The IPR developed by the Institute / startup has to be protected and licensed as per the institute norms.

a) When the institute facilities/ funds are used substantially or when IPR is developed as a part of the curriculum/ academic activity, IPR is to be jointly owned by inventors and the institute. The KRCE IPR Policy 2016 must be followed for patent filing, revenue sharing etc.

b) Inventors and institute could together license the product/ IPR to any startup by faculty / staff / students, with inventors having the primary say and the rights. License fees could be either a mix of upfront fees or a one-time technology transfer fees. Royalty as a percentage of sale-price or shares in the company licensing the product is as per the KRCE IPR Policy 2016.

c) On the other hand, if product/ IPR is developed by innovators not using any institute facilities, outside office hours (for staff and faculty) or not as a part of curriculum by student, then product/ IPR will be entirely owned by inventors (staffs or faculty) 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 and the institute has no say in this regard.

d) 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 consulting the inventors and help them settle this to everybody's satisfaction.

e) Institute IPR cell or incubation center will only be a coordinator and facilitator for providing services to faculty, staff and students. They will have no say on how the invention is carried out, how it is patented or how it is to be licensed.

f) 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.

8. MONITORING

The success of the KRCE Faculty, Staff and Students startup policy will depend upon the knowledge exchange through collaboration and partnership. The implementation of the policy is the responsibility of Institute Dean / principal and the institute must provide support mechanisms and guidance for creating, managing and coordinating these relationships.

a) Impact assessment of institute's entrepreneurial initiatives such as pre-incubation, incubation, entrepreneurship education should be performed regularly using well defined

evaluation parameters such as Number of Workshops, conferences conducted / Fab lab infrastructure / IPR policy /review committee meeting both at department and institute level.

b) Number of startups created, support system provided at the institutional level and satisfaction of participants, new business relationships created by the institutes should be recorded as indicated in the following table.

Year	Number of Startup	No of faculty/students involved	Brief application domains	Employment Generated	Revenue	Surplus	IPR
1							
2							

The success of the policy should be in terms of social / sustainable economics /technological impact in the market based on the commercial output.

9. REVIEW

This policy is subject to the review once in 3 years. This policy is as per the MHRD National Innovation and Startup policy 2019 for students and faculty and Tamil Nadu Government startup policy 2018-23 based on the change in these policies time to time.

References

1. National INNOVATION and STARTUP Policy 2019 for Students and Faculty - MHRD, GOI www.mhrd.gov.in / www.mic.gov.in.
2. Tamil Nadu Startup and Innovation Policy – 2018-23, Entrepreneurship Development and Innovation Institute, Chennai, www.editn.in.
3. Startup Policy – 2016, AICTE – New Delhi www.aicte-india.org.
4. KRCE Intellectual Property Policy, July 2016, KRCE.