



K.RAMAKRISHNAN COLLEGE OF TECHNOLOGY

An Autonomous Institution

Affiliated to Anna University Chennai, Approved by AICTE New Delhi,

ISO 9001:2015 & ISO 14001:2015 Certified Institution, Accredited with 'A+' grade by NAAC

Samayapuram, Tiruchirappalli – 621 112, Tamilnadu, India.



KRCT INNOVATION & START-UP POLICY

(KRCTISP'2022)

Website: www.krct.ac.in

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ABOUT KRCT

K.Ramakrishnan College of Technology, Tiruchirappalli, situated in the famous temple town Samayapuram, is a premiere organization striving to bring in constructive transformation in young aspirants by imparting technical, behavioral and value based education where we focus on empowering the students to get placed in World Class Corporate and introducing rich corporate culture to meet the hurdles and challenges of corporate sector and also augment the knowledge of students, foster their talents and broaden their outlook towards life by enhancing their personality, communication and bringing in entrepreneurial skills. We believe in educating, enhancing and empowering the student community to face the challenges of tomorrow and to be the front-runners in job market. We, at K. Ramakrishnan College of Technology, ensure that our students are equipped with the skill sets required to surmount the challenges of the competitive world.

The Vision of KRCT

To serve the society by offering top-notch technical education on par with global standards.

The Mission of KRCT

We will strive to

M1: Be a center of excellence for technical education in emerging technologies by exceeding the needs of the industry and society.

M2: Be an institute with world class research facilities.

M3: Be an institute nurturing talent and enhancing the competency of students to transform them as all-round personality respecting moral and ethical values.

PREAMBLE OF KRCT INNOVATION AND STARTUP POLICY (KRCTISP)

QUALITY POLICY

We, at M/s K.Ramakrishnan College of Technology are committed to the society in making our Students live a purpose as responsible citizens with Ethical Values through provision of Quality Technical Education and continually improve in becoming a World Class Technological University.

ENVIRONMENTAL POLICY

To Provide Clean, Hygiene and Safe Environment by Committing to highest possible levels of performance in Environmental Compliance, Practices and Stewardship in our Institution Campus.

- Complying with Applicable legal requirements relating to its Environmental aspects
- Prevent Pollution ,Reduce waste and minimize the consumption of resources
- Educate, Train and motivate employees to carry out tasks in an environmentally responsible manner
- Encourage Environmental Protection among our Stakeholders

The Vision of KRCTISP' 2022

To become an Entrepreneur by creating successful start-ups inside the campus using latest science and technology thereby promoting national employment, economical and social growth with partnership from technology incubators and industry.

The Mission of KRCTISP' 2022

- Providing Best Infrastructure and Environment for Incubation Support.
- Creating required Mentoring & Marketing support for Innovative Ideas to Product.
- Promoting Effective Link with Government, Technology Incubators, and Investors for knowledge sharing, pre/co-incubation and technology transfer.
- Supporting financial eco system and IPR rights for Start-ups.

Objectives of KRCTISP'2022

Our innovation and business start-up policy action plan has been formulated at Institute level with precise vision and mission goals, which is in line with the leading incubation centres to promote interdisciplinary projects.

- To promote innovation and Entrepreneurship culture among Students and Faculty Members.
- Encourage, facilitate and support the emergence of many start-ups in our institute to the minimum of one per year.
- To increase the industry involvement in start-ups through MoUs.
- To solve the real time problems using emerging technologies like Artificial Intelligence, Internet of Things (IoT) & etc.,
- To establish Partnership with reputed investors across India and the Globe to invest in KRCT start-ups.
- To conduct various certification, elective courses on Entrepreneurship Development and Intellectual Property Rights and conduct innovation contest at least one per year.

Institution Innovation and Start-Up policy formulation committee

In compliance with the guidelines issued by the Ministry of Education (MoE), Government of India and Institution Innovation and Start-Up policy formulation committee has been formed with the following members.

S.no	Portfolio	Name of the Expert	Position
1	Chief Patron	Dr.K.Ramakrishnan	Chairman K.Ramakrishnan Group of Institutions
2	Patrons	Dr.S.Kuppusamy	Director K.Ramakrishnan Group of Institutions
3	KRCTISP Chairman	Dr.N.Vasudevan	Principal K.Ramakrishnan College Technology
4	KRCTISP Coordinator	Mr.G.Arunkumar	Nodal Officer (EDCKRCT)
5	Entrepreneurship Development Cell	Mr. V. Ramkumar	Co-ordinator (EDCKRCT)
6	Entrepreneurship Enablers	Mr. P. Vignesh	EDII TN-IEDP Hub - Field Coordinator UCE, BIT Campus, Anna University, Trichy
7	Internal Experts	Dr. B. Balraj	NIRF Coordinator, KRCT
8		Dr. T. Avudaiappan	ARIIA Coordinator, KRCT
9		Mr.R. Jaiganesh	IIC Coordinator, KRCT
10	Alumni Entrepreneurs	Mr. S. Abinesh	(2014 Passed out Civil) THADAM CONSTRUCTIONS & CONSULTANTS, CHENNAI
11		Mr. R.Elamaran	(2015 Passed out EEE) MARAN TRANSPORT

S.no	Portfolio	Name of the Expert	Position
12	Alumni Entrepreneurs	Mr. Aravindprabhu	(2016 Passed out Mech) SRINIVASA AGENCIES
13		Mr. Karthikeayn.T	(2018 Passed out Mech) DHARANI E-BIKES
14		Mr. Vinoth R	(2019 Passed out EEE) VISION EVENTS AND AUDIOS
15		Mr. Prasad.M	(2019 Passed out Mech) CE'GATE READYMIX CONCRETE
16		Mr. Ashwin K	(2020 Passed out Mech) KNIGHT GROUP
17		Miss. Niranjana.S.R	(2021 Passed out CSE) HYPER ATLAS TECHNOLOGIES PVT LTD
18		Mr. Rayan Joseph.B	
19		Mr. Rayon Paul Rozario	
20		Mr. Jefry Infant J	

The members of the committee will guide and assist the NISP coordinator of the Institute in the formulation and implementation of the Institution Innovation and start up policy KRCTISP'2022. The committee is also responsible to take the necessary initiative to educate and to train the students and faculty of the Institute in Association with the Institution Innovation Council (IIC) about the procedures and provisions made available and motivate them to engage in R&D and entrepreneurial assignments.

KRCT Innovation and Start-up Policy 2022' for Students, FacultyMembers, Staff & Alumni Students

As per NISP 2019,KRCTISP'2022 is framed using the following ten thrust areas:

Sl. No.	Thrust areas of NISP 2022
1	Strategies & Governance
2	Start-ups Enabling Institutional Infrastructure
3	Nurturing Innovations and Start-Ups
4	Product Ownership Rights for Technologies Developed at Institute
5	Organizational Capacity, Human Resources and Incentives
6	Creating Innovation Pipeline and Pathways for Entrepreneurs at Institute Level
7	Norms for Faculty Start-up
8	Pedagogy and Learning Interventions for Entrepreneurship Development
9	Collaboration, Co-creation, Business Relationships and Knowledge Exchange
10	Entrepreneurial Performance Impact Assessment

STRATEGIES AND GOVERNANCE IN IMPLEMENTING KRCTISP'2022

- The NISP Coordinator of KRCT will hold the responsibility to promote innovation, entrepreneurship and start-ups.
- KRCT plans to invest a minimum of 1% of its annual budget for promoting innovations, entrepreneurship, start-up, filing patent and copyright, and intellectual property rights.
- Institute may also rise funding through sponsorships and donations. Institute should actively engage alumni network for promoting Innovation & Entrepreneurship (I&E).
- Programs will be conducted to foster the innovation and entrepreneurship culture through financial aid from the Institute and Industry of Government and Non-governmental agencies.

- KRCT promotes innovation culture through Strategic Plan of each departmental activities and also from K.Ramakrishnan Innovation Council (KRIC) programs like IIC Calendar Activities, MIC Driven Activities and Self Driven activities such as workshops, conferences, webinars, hackathons, etc.
- KRCT and its action plans will be disseminated among all stakeholders through websites, social media and event brochures and will be subjected to continual amendments as required.
- Through KRCTISP, all the departments, clubs' associations governing bodies will be integrated to ensure the sustainability of the innovation ecosystem in the institute
- KRCT will be acting as a driving force in developing innovation and Entrepreneurship culture in Samayapuram & Trichy district by giving opportunities for potential people
- KRCT will mentor the incubate to commercialise the Product to Market Strategy.
- KRCT will have an International Partnership whereby exchange programs for Faculty and Students for promoting Teaching and Research.

Building Institutional Infrastructure

- KRCT will create new pre-incubation and incubation facilities for nurturing innovations and start-ups based on the financial aid from management and also from Government, Private agencies and Industry.
- KRCT is also having the following Cells, Club, Project Lab's & Centre of Excellences for supporting pre-incubation and Incubation/acceleration by mobilizing resources from internal and external sources.
 - KRCT Entrepreneurship and Development Cell (EDCKRCT)
 - K.Ramakrishnan Innovation Council (KRIC) as per guidelines by MoE
Start-up Cell(SC), Innovation Activity Cell(IAC), Intellectual Property Rights Cell (IPRC), Internship Cell(IC)
 - Science Club & Project Laboratories

- Centre of Excellences,
 - 3D Printing
 - Stir Casting
 - TIG & MIG Welding
 - Automobile Engineering
 - Non Destructive Testing
- This Pre-Incubation/Incubation facility should be accessible 24x7 to students, staff and faculty of all disciplines and departments across the institution.
- KRCT will offer mentoring and other relevant services through the facilities available in the institution with our faculties and outside facilitators in-return for fees, equity sharing and (or) zero payment basis for creating Pre-incubation/Incubation units.

Nurturing innovation and start-ups

- KRCT offers easy creation and nurturing of Start-ups/enterprises by students (UG, PG, Ph.D.), staff (including temporary or project staff), faculty, alumni and potential start up applicants even from outside the institutions. They also access the facilities in KRCT for learning and implementing their ideas at the mutually acceptable time frame.
- KRCT will allow applying license of intellectual property rights from the institute to the start-ups either in terms of equity in the venture and/ or license fees and/ or royalty to obviate the early stage financial burden
- Students who are under incubation may be allowed to use the address of the KRCT to register their company with due permission.
- Students who are under incubation, but are pursuing some entrepreneurial ventures while studying should be allowed to use their address in the institute to register their company with due permission from the Principal.
- The students who become an entrepreneur will be given provision for utilising the infrastructure and the facilities of KRCT based on mutual consent.
- KRCT will allow their students / staff to work on their innovative projects and setting up start-ups (including Social Start-ups) or work as intern/part-time in start-ups (incubated in any recognized HEIs/Incubators) while studying / working.

- Student entrepreneurs may earn academic credits for working on innovative prototypes/Business Models. Institute will set up a review committee for review of start up by students, and based on the progress made, it may consider giving appropriate credits for academics
- Student inventors may also be allowed to opt for start-up in place of their mini project/ major project, seminars, summer trainings. The area in which student wants to initiate a start-up may be interdisciplinary or multidisciplinary.
- KRCT may take 2 to 9.5% equity or stake in a Start-up that utilises the facilities of the institute
- KRCT should 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 be allowed for examinations even if their attendance is less than the minimum with due permission from the Principal.
- Allow faculty and staff to take off for a semester / year (or even more depending upon the decision of review committee constituted by the institute) as sabbatical/ unpaid leave/ casual leave/ earned leave for working on start-ups and come back.
- KRCT will consider allowing the use of its resource to faculty/students/staff wishing to establish start up as a fulltime effort. The seniority and other academic benefits during such period may be preserved for such staff or faculty.
- KRCT will provide provision of accommodation to the entrepreneurs inside the campus till the completion of the Product to commercialization with minimal charge.
 - Short-term/ six-month/ one-year part-time entrepreneurship training.
 - Mentorship support on regular basis.
 - Facilitation in a variety of areas including technology development, ideation, creativity, design thinking, fund raising, financial management, cash-flow management, new venture planning, business development, product development, social entrepreneurship, product costing, marketing, brand-development, human resource management as well as law and regulations impacting a business.

- Institute may also link the start-ups to other seed-fund providers/ angel funds/ venture funds or itself may set up seed- fund once the incubation activities mature.
- In return of the services and facilities, KRCT may take 2% to 9.5% equity/ stake in the start-up/ company, based on brand used faculty contribution, support provided and use of institute's IPR. Other factors for consideration should be space, infrastructure, mentorship support, seed funds, support for accounts, legal, patents etc.
- KRCT should also provide services based on mixture of equity, fee- based and/ or zero payment model. So, a start-up may choose to avail only the support, not seed funding, by KRCT on rental basis.
- KRCT could extend this start-up facility to alumni of the institute as well as outsiders.
- KRCT support the faculty in terms of start-up related activities which also to be considered as a legitimate activity of faculty in addition to teaching, R&D projects, industrial consultancy and management duties and must be considered while evaluating the annual performance of the faculty.
- Every faculty may be encouraged to mentor at least one start-up.

Product ownership rights for Technologies developed at institute

- When KRCT facilities / funds are used substantially or when IPR is developed as a part of curriculum/ academic activity, IPR is to be jointly owned by inventors and the KRCT.
- Inventors and institute could together license the product / IPR to any commercial organisation, with inventors having the primary say. License fees could be either / or a mix of
 - Upfront fees or one-time technology transfer fees
 - Royalty as a percentage of sale-price
 - Shares in the company licensing the product
- KRCT will not hold the equity as per the current statute, so SPV may be requested to hold equity on their behalf.

- If one or more of the inventors wish to incubate a company and license the product to this company, the royalties would be no more than 4% of sale price, preferably 1 to 2%, unless it is pure software product. If it is shares in the company, shares will again be 1% to 4%. For a pure software product licensing, there may be a revenue sharing to be mutually decided between the institute and the incubated company.
- On the other hand, if product/ IPR is developed by innovators not using any KRCT 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 minimum 5 members committee consisting of faculty members with expertise in IPR, alumni or industrial experts, legal Advisors with experience in IPR will examine the issue and settle the same.
- The institution will promote interdisciplinary research and Publication on start-up and entrepreneurship.

Organisational capacity, human resources and incentives

- KRCT will also recruit staff who should have a strong innovation and entrepreneurial/ industrial experience, behaviour and attitude. This will help in fostering the I&E culture.
- Some of the relevant faculty members with prior exposure and interest should be deputed for training to promote I&E.
- KRCT policy on career development of staff is being developed with constant up-skilling for achieving better engagement of staff in entrepreneurial activities
- Faculty and departments of the institutes have to work in coherence and cross-departmental linkages should be strengthened through shared faculty, cross-faculty teaching and research in order to gain maximum utilization of internal resources and knowledge.
- Periodically some external subject matter experts such as guest lecturers or alumni can be engaged for strategic advice for providing more skills.
- Faculty and staff should be encouraged to do courses on innovation, entrepreneurship management and venture development.

- In order to attract and retain right people, KRCT will develop academic and non-academic incentives and reward mechanisms for all staff and stakeholders that actively contribute and support entrepreneurship agenda and activities.

Setting the innovation students innovation and pre incubation activities at their early stage and to support the pathway from ideation to innovation to market, mechanisms is devised a **pipeline**

To ensure exposure,

- K.Ramakrishnan Innovation Council(KRIC) and EDCKRCT aims to spread awareness among students, faculty members and staff members about the value of entrepreneurship and its role in career development or employability.
- Students will be inculcated with entrepreneurial skills by exposing them with cognitive skills by inviting entrepreneurs or experts to address them.
- KRCT is taking initiatives like idea and innovation competitions, hackathons, workshops, bootcamps, seminars, conferences, exhibitions, mentoring by academic and industry personnel, throwing real life challenges, awards and recognition is being organized regularly..
- KRCT integrate the education and enterprise related activities for preparing the students for creating the start up
- Financial support will be provided to KRIC and EDCKRCT for conducting programs related to entrepreneurship and innovation.
- A good platform will be provided for the students to expose their entrepreneurial skills.
- The institute should link their start-ups and companies with wider entrepreneurial ecosystem and by providing support to students who show potential, in pre-start-up phase. Connecting student entrepreneurs with real life entrepreneurs will help the students in understanding real challenges which may be faced by them while going through the innovation funnel and will increase the probability of success.

- KRCT established Institution's Innovation Councils (IICs) as per the guidelines of MHRD's Innovation Cell and allocate appropriate budget for its activities. K.Ramakrishnan Innovation Council(KRIC) will guide institutions in conducting various activities related to innovation, startup and entrepreneurship development. Collective and concentrated efforts should be undertaken to identify, scout, acknowledge, support and reward proven student ideas and innovations and to further facilitate their entrepreneurial journey.
- For strengthening the innovation funnel of the institute, access to financing must be opened for the potential entrepreneurs.
- Networking events will be organized to create a platform for the budding entrepreneurs to meet investors and pitch their ideas.
- Provide business incubation facilities: premises at subsidised cost. Laboratories, research facilities, IT services, training, mentoring, etc. should be accessible to the new start-ups.
- A culture is promoted that money is not FREE and is risk capital. The entrepreneur must utilize these funds and return. While funding is taking risk on the entrepreneur, it is an obligation of the entrepreneur to make every effort possible to prove that the funding agency did right in funding him/ her.

Norms for Faculty Start-ups

- Faculty and departments of the institute have to work in coherence and cross departmental linkages to be strengthened through shared faculty, cross-faculty teaching and research in order to gain maximum utilization of internal resources and knowledge.
- Some of the relevant faculty members with prior exposure and interest should be deputed for training to promote innovation & Entrepreneurship.
- Faculty and staff will be allowed 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 start-ups and come back.
- KRCT will consider allowing use of its resource to faculty/students/staff wishing to establish start-up as a fulltime effort. The seniority and other academic benefits during such period may be preserved for such staff or faculty.

- Those technologies which originate from KRCT should be only taken for faculty start-ups.
- Role of faculty may vary from being an owner/ direct promoter, mentor, consultant or as on-board member of the start-up.
- KRCT will develop a policy on 'conflict of interests' to ensure that the regular duties of the faculty don't suffer owing to his/her involvement in the start-up activities.
- Faculty start-up may consist of faculty members alone or with students or with faculty of inside institute or with alumni. No restriction on shares that faculty / staff can take, as long as they do not spend more than 20% of office time on the start-up in advisory or consultative role and do not compromise with their existing academic and administrative work / duties.
- 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.
- Faculty must clearly separate and distinguish on-going research at the institute from the work conducted at the start-up/ company.
- A Company owned or co-owned by a faculty/ staff will normally be required to incubate at KRCT. However, in exceptional cases, where the faculty / staff /wants 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.
- Faculty must not accept gifts from the start-up.
- Faculty must not involve research staff or other staff of institute in activities at the start-up and vice-versa.
- Human subject related research in start-up should get clearance from ethics committee of the institution.
- In case of selection of a faculty start up by an outside national or international accelerator, a maximum leave (as sabbatical/ existing leave/ unpaid leave/ casual leave/ earned leave) of one semester/ year (or even more depending upon the decision of review committee constituted by the institute) may be permitted to the faculty.
- Participation in start-up related activities will be considered as a legitimate activity of faculty in addition to teaching, R&D projects, industrial consultancy and management duties and will be considered while evaluating the annual performance of the faculty. Every faculty is encouraged to mentor at least one start-up.

Student Startup:

- Students will be allowed to set up a start-up (including social start-ups) and work part-time for these start-ups while studying.
- Student entrepreneurs may earn academic credits for their efforts while creating an enterprise. Student Entrepreneurs can earn a maximum of 1 credit for innovative Proof of Concept (PoC) development (during 5th semester), maximum of 1 credit for prototypes or Minimum Viable Product (MVP) development (during 6th semester), maximum of 1 credit when the student teamed up and formulates a company with business plan in place (during 7th semester). KRCTISP committee will evaluate and recommend the credits.

Pedagogy and Learning Interventions for Entrepreneurship Development

- Faculty are encouraged to adopt a diversified approach to produce desirable learning outcomes, which should include cross disciplinary learning using mentors, labs, case studies, games, etc. in place of traditional lecture-based delivery.
- Student clubs/ bodies/ departments can be used for organizing competitions, bootcamps, workshops, awards, etc. These bodies are involving in institutional strategy planning to ensure enhancement of the student's thinking and responding ability.
- KRCT will start 'INNOVATION & ENTREPRENEURSHIP AWARD' to recognize outstanding ideas, successful enterprises and contributors for promoting innovation and enterprises ecosystem within the institute.
- For creating awareness among the students, the teaching methods should include case studies on business failure and real-life experience reports by start-ups.
- Tolerating and encouraging failures: Our systems are not designed for tolerating and encouraging failure. Failures need to be elaborately discussed and debated to imbibe that failure is a part of life, thus helping in reducing the social stigma associated with it.
- KRCT will nominate Innovation champions from within the students/ faculty/ staff for each department/ stream of study.
- Entrepreneurship education should be imparted to students at curricular/ co-curricular/ extracurricular level through elective/ short term or long-term courses on innovation, entrepreneurship and venture development. Validated learning outcomes should be made available to the students.

- Students are encouraged to choose courses like Economics & Management, Entrepreneurship development, Innovation and Business Development, Product design and development, Principles of Management & Industrial Psychology in order to develop their knowledge in entrepreneurial conduct.
- EDCKRCT, IICKRCT & Each department association, Professional bodies, Clubs and Cells will jointly organize idea & design competitions, demo days, networking events, boot camps, workshops, etc. to ensure enhancement of the student's thinking and responding ability. During these activities, the following are to be ensured:
- Stakeholder engagement should be given prime importance in the entrepreneurial agenda.
- Open up the opportunities for staff, faculty and students to allow constant flow of ideas and knowledge.
- KRCTISP will create MoUs with potential partners, resource organizations, micro, small and medium sized enterprises (MSMEs), social enterprises, universities, schools, alumni, professional bodies and entrepreneurs to support entrepreneurship and co-design the programs
- Pedagogical changes need to be done to ensure that maximum number of student projects and innovations are based around real life challenges.

Collaboration co-creation business relationships and knowledge exchange

- Stakeholder engagement should be given prime importance in the entrepreneurial agenda of the institute. Institutes should find potential partners, resource organizations, micro, small and medium sized enterprises (MSMEs), social enterprises, schools, alumni, professional bodies and entrepreneurs to support entrepreneurship and co-design the programs
- Care must be taken to ensure that events DON'T BECOME an end goal. First focus of the incubator should be to create successful ventures.
- Linkages and collaboration will be made with potential entrepreneurship enabling firms, social enterprises, professional bodies, alumni to strengthen the I&E ecosystem.
- In-plant training, knowledge sharing, and resource exchange will be enabled for the students in potential industries through Memorandum of understanding.

- KRCT will follow the forming and managing the relationships with external stakeholders including private industries.
- Feedback and suggestions will be received from the stakeholders to strengthen the innovation ecosystem in the campus.

Entrepreneurial Impact Assessment

- A monitoring and assessment committee for KRCTISP will be nominated by the head of the institution which will involve the KRCT coordinator, senior faculties and other stakeholders. This committee is responsible for the impact assessment and report generation regarding KRCT activities.
- Impact assessment for measuring the success should be in terms of sustainable social, financial and technological impact in the market. The following Key Performance Indicators are used to measure the attainment levels as per the targets set for every three years.

Key Performance Indicators

Short-term activities plan (one-year duration)

- Numbers of students and faculty participated in awareness / training /programmes organized by KRCT
- Numbers of students and faculty participation in events/ programmes organized by the external agencies
- Numbers of ideas generated and number of innovations created by conducting various internal Hackathons , Mini Project & Final year Projects.
- Numbers of innovative projects recognized at national and internationallevel
- Number of ideas / innovations / start-ups supported through funds byKRCT
- Number of Courses on Innovation, IPR and Entrepreneurship.

Mid-term activities plan (two-year duration)

- Number of intellectual property filed/provisionally granted
- Number of patents granted
- Number of technology transfers/commercialization's happened
- Grant / fund generated / received by institute to support Innovation & start-up
- Angel fund/venture fund / investment mobilized to support Innovation & start-up.

Long-term program plan (three-year duration)

- Number of successful innovations converted in to start-ups
- Number of advance lab infrastructures, pre-incubation and incubation facilities created on-campus
- Innovative solutions developed in-house and level of impact created so far after being adopted at institute or society

Action Plans

As per Tamil Nadu Start-up Policy, KRCT Innovation and Start-up Policy (KRCTISP'2022) shall focus on driving entrepreneurship and innovation in the State through 5 priority actions:

- Create a conducive ecosystem for encouraging entrepreneurship and innovations.
- Ensure adequate resources channelled to the start-up ecosystem.
- Enable skill development and inclusive job creation.
- Extend the support to social entrepreneurship for a positive social impact and inclusion.
- Establish global accessibility, connections and partnerships.



Creating conducive ecosystem for encouraging entrepreneurship and innovations



Ensuring adequate resources channelled to the startup ecosystem



Enabling skill development and inclusive job creation



Extending support to social entrepreneurship for a positive social impact and inclusion



Establishing global accessibility, connections and partnerships

Creating a conducive ecosystem for encouraging entrepreneurship and innovations

KRCT is well known for its reputation and talent in Engineering and Technology. The ethnic Intellectual resources would be strengthened and leveraged to create entrepreneurial venture through the following action plan. Intellectual property support:

- KRCT identify and empanel KRCT IPR cell to partner or engage with start-up networks, associations, co-working spaces, to provide IPR guidance to start-ups.
- Integration of expertise of the external stakeholders should be done in the entrepreneurship education to evolve a culture of collaboration and engagement with external environment.
- Pedagogical changes need to be done to ensure that maximum number of student projects and innovations are based around real life challenges. Learning interventions developed by the institutes for inculcating entrepreneurial culture should be constantly reviewed and updated.

Ensuring adequate resources channelled to the start-up ecosystem

KRCT will provide a positive and motivating business climate for the growth and acceleration of the start-up.

Policy Research group & regulation:

- KRIC & EDCKRCT is functioning to research the start-up ecosystem. They will give prioritisation start-up working with the government of India budget guideline thrust area.

Incubators/Accelerators:

- Industrial organisations and private commercial organisations will be approached to set Incubators/Accelerators using funds allocated under DST schemes, AIM, AICTE, DBT, DEITY, and MSME-DC of Government of India.
- Provide support to facilitators, incubatees, to develop a concept/idea into a prototype/product Funding:
- The institute will ensure an adequate budget for entrepreneurship development and start-ups. A minimum budget will be allotted for I&E activities if necessary.
- Innovative ideas shall be nurtured by special innovation programs, including Innovations day and National Science day celebrations.
- Efforts will also be made to attract NRI / Distinguished alumni entrepreneur/angel investors/Ventures and Private Equity investors to fund start-ups.

Grants:

- KRCT will be collaborating and receiving tapping research grants from AIM, AICTE, BIRAC, DST/NSTEDB, CSIR, DEITY and MSME- DC in collaboration with industry, generating product or process innovations.
- CPSUs and SPSUs will be communicated and motivated to fund Incubators and start-up programmes using Corporate Social Responsibility regulations in force.
- KRCT shall facilitate start-ups in marketing and R&D activities.

Enabling skill development and inclusive job creation

Skill Development:

To provide the impetus for fostering innovation, KRCT aims to promote academic research and development.

- KRCT will offer incentives to faculties and students innovatorsthrough sponsors.
- KRCT will arrange skill development programmes in association with EDII-Tamilnadu Hub.

To prepare students startup ready, KRCT

- Facilitate industry academia interaction.
- Integrate entrepreneurship into the curriculum in as per Anna University Regulations as one of Elective subjects.
- Decentralize innovations by establishing new labs with aiming to bridgeinnovators and Incubators.
- Credits will be provided for students who choose entrepreneurship associated learning activity at college premises in line with AICTE policy and Anna University regulations.
- Encourage faculty to convert student research projects to be developed at KRCT either become start-up's or product.
- Provide training programmes to bridge the gap between industry and faculties thus bridge the gap between industry requirements and existing curriculum.

Entrepreneurship related competencies in KRCT:

- School level entrepreneurship related programmes like create a product, Business plan can be to indoctrinated career as a choice and provide introductory knowledge and understanding.
- To support and improve entrepreneurial ecosystem around Trichy District
- Competitions for school load students in innovation and Entrepreneurship are will be conducted periodically.

Job Creation:

- The mission of KRCTISP shall aim for developing either direct or indirect jobs through incubated start-up centres in rural areas around Trichy District.

Supporting social entrepreneurship for a positive social impact

- The KRCT policy aims to offer valuable support to the eco-friendly based green start-ups like water management, Agricultural management, waste management.
- KRCT policy encourages and motivates students to participate in social impact associated activities through KRCT NCC, KRCT NSS
- Challenges in rural areas will be surveyed and the challenges will be addressed by implementing them through student's live projects.
- Students will be motivated to participate in Hackathon that aims to address societal related problems and challenges.
- Priority will be given for start-ups that will run by women, differently-abled and transgender.

Establishing accessibility

- KRCT will plan to host interactive workshops and meetings with investors, entrepreneurship ecosystem enablers and others especially for mentoring and support.
- Inter-college Business plan competitions will be organised for faculties and students and the best performers will be identified and sponsor them to participate in external events to obtain more exposure
- Internal Hackathon for students will be hosted to identify and harvest new innovations from young minds
- Mentoring and Guidance will be offered for students and incubates who want to become an entrepreneur based on requirements.
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Implementation Guideline

- Clarifications and Operational guidelines will be provided based on requirements.
- The Governing Council and KRCTISP members will review the policy performance on regular basis on the objectives to be fixed by the council members.
- The policy's annual performance efficiency and its report shall be put before the IQAC, P&M and Governing council for further review and suggestion for improvement.

KRCTISP'2022 is valid for 5 years from the date of its notification or until a new policy is formulated. However, amendments in this policy could also be made with the NISP members' approval without affecting the beneficiaries already covered under the policy.

References

- National INNOVATION and STARTUP Policy 2022 for Students and Faculty- https://www.mic.gov.in/assets/doc/startup_policy_2022.pdf
- Tamil Nadu Start-up and Innovation Policy 2018-23, Entrepreneurship Development and Innovation Institute, Chennai. <https://www.editn.in/app/webroot/img/ATI/STARTUP-TN%20Policy.pdf>
- Start-up Policy – 2016, AICTE – New Delhi. www.aicte-india.org
- Anna University Start-up Policy Guidelines for Faculty, Staffs and Students – 2020, Centre for Entrepreneurship Development, Anna University, Chennai, Tamil Nadu http://ctdt.annauniv.edu/dst_tec_1/startups/policies.html
- ATAL Ranking of Institutions on Innovation Achievements (ARIIA) ranking framework/ <https://www.ariia.gov.in/>

Glossary

Accelerators	Start-up Accelerators design programs in batches and transform promising business ideas into reality under the guidance of mentors and several other available resources.
Angel Fund	An angel investor is a high network individual who invests his or her personal capital and shares experiences, contacts, and mentors (as possible and required by the start up in exchange for equity in that start up). Angels are usually accredited investors. Since their funds are involved, they are equally desirous in making the start-up successful.
Cash flow management	Cash flow management is the process of tracking how much money is coming into and going out of your business
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.
Compulsory 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.
Corporate Social Responsibility Cross-disciplinary	Corporate social responsibility (CSR) is a self-regulating business model that helps a company be socially accountable – to itself, its stakeholders, and the public. Cross-disciplinary practices refer to teaching, learning, and scholarship activities that cut across disciplinary boundaries.
Entrepreneurial culture	A culture/ society that enhance the exhibition of the attributes, values, beliefs and behaviours that are related to entrepreneurs.
Entrepreneur	An individual who has an entrepreneurial mind-set and wants to make his/her idea successful.
Entrepreneurship Education	Entrepreneurship education seeks to provide students with the knowledge, skills and mentoring to encourage entrepreneurial success in a variety of settings.

Entrepreneurship Education	Entrepreneurship education seeks to provide students with the knowledge, skills and mentoring to encourage entrepreneurial success in a variety of settings.
Experiential learning	Experiential learning is the process of learning through experience, and is more specifically defined as learning through reflection on doing.
Fab Lab or Prototypelab	A fab lab is a small-scale workshop offering digital fabrication. A fab lab is typically equipped with an array of flexible computer controlled tools that cover several different length scales and various materials, with the aim to make "almost anything".
Financial management	Financial Management is the application of general principles of management to the financial possessions of an enterprise.
Hackathon	A hackathon is a design sprint-like event in which computer programmers and others involved in software development, including graphic designers, interface designers, project managers, and others, often including domain experts, collaborate intensively on software projects
Host Institution	Host institutions refer to well-known technology, management and R&D institutions working for developing start-ups and contributing towards developing a favorable entrepreneurial ecosystem.
Incubation	Incubation is a unique and highly flexible combination of business development processes, infrastructure and people, designed to nurture and grow new or innovative and small businesses by supporting them during the early stages of development.
Intellectual property Rights (IPR) 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).
Knowledge Exchange	Knowledge exchange is a process which brings together academic staff, users of research and wider groups and communities to exchange ideas, evidence and expertise.
Pedagogy and Experiential Learning	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. The experiential learning method will be used for teaching 'start-up related concepts and contents' to introduce a positive influence on the thought processes of students. Courses like 'business idea generation' and

	'soft skills for start-ups' would demand experiential learning rather than traditional class room lecturing. Business cases and teaching cases will be used to discuss practical business situations that can help students to arrive at a decision while facing business dilemma(s). Field based interactions with prospective customers; support institutions will also form a part of the pedagogy which will orient the students as they acquire field knowledge.
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.
Science parks	A science park, also known as a research park, technology park or innovation centre, is a purpose-built cluster of office spaces, labs, workrooms and meeting areas designed to support research and development in science and technology.
Seed fund	Seed fund is a form of securities offering in which an investor invests capital in a start-up company in exchange for an equity stake in the company
Special Purpose Vehicle	Special purpose vehicle, also called a special purpose entity, is a subsidiary created by a parent company to isolate financial risk. Its legal status as a separate company makes its obligations secure even if the parent company goes bankrupt
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 and as defined in Gazette Notification No. G.S.R. 127(E) dated February 19, 2019.
Faculty / Staff / Student Start-up	A Start-up that is initiated by Faculty (s) / Staff (s) / student(s) enrolled in any academic institution recognized/approved by AICTE.
Technology Business incubator (TBI)	TBI is an entity, which helps technology-based Start-ups with all the necessary resources/support that are needed to evolve and grow into a mature business.
Technology commercialization (TC)	TC is the process of transitioning technologies from the research lab 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 start-up 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 for products or services of the start-up
Technology Readiness Level (TRL)	<ul style="list-style-type: none"> • TRL 0: Idea- Unproven Concept, No testing has been performed • TRL 1: Basic Research- Principles postulated and observed but no experimental proof of concept available • TRL 2: Technology Formulation- Concept and application have been formulated • TRL 3: Applied Research- First Laboratory test completed; Proof of Concept (PoC) • TRL 4: Small Scale Prototype built in a laboratory environment (“Ugly” Prototype) • TRL 5: Large Scale Prototype tested in intended environment • TRL 6: Prototype System tested in intended environment close to expected performance • TRL 7: Demonstration System operating in operational environment at pre-commercial scale • TRL 8: First of kind commercial system- Manufacturing issues resolved • TRL 9: Full Commercial application- Technology available for consumers

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