



TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in

Innovation and Startup Policy

TINT has embraced the National Innovation and Start-up Policy (NISP) 2019, fostering a structured culture of innovation and entrepreneurship among students and faculty. This policy integration positions TINT within a national network dedicated to promoting innovative thinking and startup development.

TINT Innovation and Startup Policy



MoE's
INNOVATION CELL
(GOVERNMENT OF INDIA)



INSTITUTION'S
INNOVATION
COUNCIL
(Ministry of Education Institute)

Innovation, Incubation and Start-up Policy for Students, Faculty and Staff



**Techno International New Town
Kolkata 700156**



S. Banerjee

1





TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in

TINT Innovation and Startup Policy



Contents

Sl. No	Title	Page
1.	Preamble	3
2.	Mission	3
3.	Vision	4
4.	Committee for TINT Innovation and Startup Policy	4
5.	Introduction	5
6.	Strategies and Governance	5
7.	Startups Enabling TINT Infrastructure	7
8.	Nurturing Innovations and Start ups	8
9.	Product Ownership Rights for Technologies Developed at TINT	11
10.	Organizational Capacity, Human Resources, and Incentives	13
11.	Creating Innovation Pipeline and Pathways for Entrepreneurs at TINT	14
12.	Norms for Faculty Startups at TINT	16
13.	Pedagogy and Learning Interventions for Entrepreneurship Development	17
14.	Collaboration, Co-creation, Business Relationships and Knowledge Exchange	19
15.	Entrepreneurial Impact Assessment	20
16.	Review of the Policy	22
17.	Way Forward	22

R. Bhattacharya





TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in



TINT Innovation and Startup Policy

Preamble

In order to enable us to understand the current role and involvement in strengthening the innovation and startup ecosystem in the Institution, MHRD's Innovation Cell (MIC) along with All India Council for Technical Education (AICTE) provided the learning objectives as follows:

- Reason for adoption of National Innovation and Startup Policy (NISP) by HEIs
- Provisions and components in NISP for HEIs to implement
- Desirable approaches, expected outcomes and likely impacts which will be created both at Micro & Macro level and Short- and Long-Term
- Task Sheet preparation: To-do list for adoption.

Techno International Newtown constituted twelve member committee according to MIC instructions to design and develop TINT Innovation and Startup Policy to address the need for inculcation of innovation and entrepreneurial culture in the Institution. This committee deliberated on various facets for nurturing Innovation and Startup culture in TINT, which covered Intellectual Property ownership, revenue sharing mechanisms, norms for technology transfer & commercialization, equity sharing, etc. After several rounds of meetings, "TINT Innovation and Startup Policy 2021" for students and faculty of TINT was prepared in accordance with NISP guidelines.

MISSION

- The objective of TINT Innovation and Startup Policy is to motivate aspiring entrepreneurs and to shape up their innovating ideas towards successful business models.
- To identify student innovators, promote and support them to evolve self- sustaining business models. It works to cultivate the innovation ecosystem within the institution.
- Collaborate with world class technical and commercialization experts and bring them on common Platform through, awareness, trainings, coaching and mentoring programs.
- Forging strong active partnerships with local Industry partners.
- Provide best in class Infrastructure, Advisory & Investment Support.
- To impart a supportive and vibrant environment to stimulate the innovation attitude of the student entrepreneurs, start-ups / SMEs (Small and Medium Enterprises) and enable

3





TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in

TINT Innovation and Startup Policy



them to design technology based products and services leading to job creation for strengthening the regional and national economy.

VISION

To Create World Class, sustainable Business Incubation Facility & Innovation Ecosystem that will Nurture Knowledge based, technologically enriched, Socially Relevant Ventures Creating Economic Impact on People in the Region, State & Nation at Large. The main vision of TINT incubator is to produce successful start-ups that will leave the incubator financially viable and freestanding.

Committee for TINT Innovation and Startup Policy

The following members are nominated for the TINT Innovation Startup Policy Development Committee Based on National Innovation and Startup Policy (NISP) Guidelines.

Sl. No	Name	Designation	Roll in the Committee
1.	Dr. R. T. Goswami	Director, TINT	Chairman
2.	Prof. Ayan Chakraborty	Assistant Prof in IT department, TINT	Member
3.	Dr. Sanjoy Das Neogi	Head, Civil Engineering department, TINT	IIC representative
4.	Prof. Indrajit Pandey	Assistant Prof in AEIE department, TINT	Member
5.	Dr. Syamasree Biswas	Assistant Prof in Electrical Engineering department, TINT	Member
6.	Prof. Bikash Sadhukhan	Head, Computer Science & Engineering department, TINT	Member
7.	Prof. Ipsita Ghatak	Assistant Prof in BBA department	External Member
8.	Dr. Shantanu Duari	Assistant Prof in Mechanical Engineering department, TINT	Member
9.	Dr. Sayantika Bose Chakraborty	Assistant Prof in Basic Science & Humanities department, TINT	Member
10.	Prof. Shiladitya Munshi	Head, IT department, TINT	Member
11.	Dr. Satyabrata Maity	Associate Prof in IT department, TINT	ARIIA representative
12.	Dr. P. K. Ghosh	Professor, ECE department, TINT	NISP Coordinator

R. Goswami





TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in

TINT Innovation and Startup Policy



Introduction

The objective of TINT Incubation Centre is to motivate aspiring entrepreneurs and to shape up their innovative ideas towards successful business models. Students currently engaged with TINT-BI (*Business Incubator*) have wide range of technical skills and possess managerial abilities. Diligent, dedicated and experienced faculty members guide students through the dynamic learning process of business development. Additionally, the BI has an Advisory Committee with expertise in the domain of finance and marketing along with indepth core technical understanding. The Committee is in regular interaction with prominent chambers of law and industry in the form of workshops and seminars on entrepreneurship development and thereby enabling innovators. TINT-BI already has graduated entrepreneurs with startup venture within STEP, IIT Kharagpur. Furthermore, the institution also provides infrastructural facilities to interested candidates. Individuals are encouraged and mentored at every step on the road to become a successful entrepreneur.

1. Strategies and Governance

- A. Entrepreneurship promotion development will be one of the major dimensions of the TINT strategies. To facilitate development of an entrepreneurial ecosystem in the TINT and nearby areas, specific objective and associated performance indicator will be periodically defined for assessment.
- B. Implementation of entrepreneurial vision in TINT will be achieved through the Mission statements rather than stringent control system. The entrepreneurial agenda will be the responsibility of the Coordinator of *Centre of Innovation, Incubation & Start-up* (CIIS) to bring in required commitment and well understood by the Top Management. However, promoting entrepreneurship requires a different type of mind set as compared to other academic activities. Therefore, Coordinator of CIIS will have large industry and business exposure.
- C. For supporting innovation, pre-incubation, incubation infrastructure and facilities, resource mobilization plan will be worked out at the TINT level. A sustainable financial strategy will be defined in order to reduce the organizational constraints to work on the entrepreneurial agenda.

[Handwritten signature]

5





TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in

TINT Innovation and Startup Policy



- i. Investment in the entrepreneurial activities will be a part of the institutional financial strategy. Minimum 1% fund of the total Annual Budget of the institution will be allocated as own resource for funding and supporting innovation and startups related activities through creation of separate 'Innovation Fund'.
 - ii. The strategy will also involve raising funds from various external funding sources through government (State and Central) such as DST, DBT, MHRD, AICTE, DSIR, CSIR, BIRAC, NSTEDB, NRDC, Startup India, Invest India, MeitY, MSDE, MSME, etc. and nongovernment sources.
 - iii. To support technology incubators, TINT will approach Private and Corporate sectors to generate Incubation funds, under *Corporate Social Responsibility (CSR)* as per Section 135 of the Company Act 2013.
 - iv. TINT will also raise funds through sponsorships and donations. Institute will actively engage Alumni network for promoting Innovation & Entrepreneurship.
- D. For expediting the decision making, hierarchical barriers will be minimized by empowering the *Centre of Innovation, Incubation & Start-up (CIIS)* team and individual autonomy and ownership of initiatives will be promoted.
- E. Importance of innovation and entrepreneurial plan will be known across the TINT and will be promoted and highlighted at Institution Academic Calendar programs such as Conferences, Workshops, etc.
- F. Action plan will be formulated at the TINT level, having well-defined short-term and long-term goals.
- G. TINT will develop and implement Innovation and Entrepreneurship strategy and Policy for the entire Institution so as to integrate the entrepreneurial activities across various centers for excellence, departments, and career services within the Institution.
- H. Product to market strategy for startups can be developed by the TINT on case to case basis.
- I. Development of entrepreneurship culture should not be limited within the boundaries of the Institution.
- i. TINT will be the driving force in developing entrepreneurship culture in its vicinity (regional, social and community level). This will include giving opportunity to regional startups, provision to extend facilities for outsiders and active involvement of the Institution in defining strategic direction for local development.

6





TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

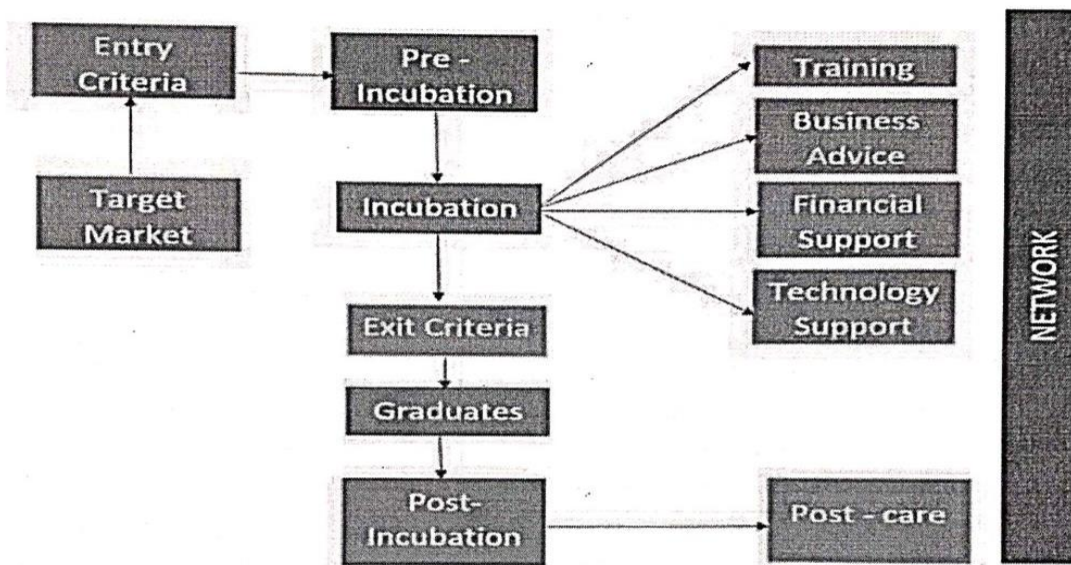
Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in

TINT Innovation and Startup Policy



- ii. Strategic international partnerships should be developed using bilateral and multilateral channels with international innovation clusters and other relevant organizations. Moreover, international exchange programs, internships, engaging the international faculties in innovation and entrepreneurship will also be promoted.



2. Startups Enabling TINT Infrastructure

Pre-incubation and incubation facilities for nurturing innovations and startups will be created. Incubation and Innovation can be organically interlinked and effort will be to link Innovation to Enterprises to Financial Success.

- A. TINT will create *Centre of Innovation, Incubation and Startup (CIIS)* under which Business Incubator and Student Innovation and Entrepreneurship Club will be working by mobilizing resources from internal and external sources.

7





TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in

TINT Innovation and Startup Policy



- B. Pre-Incubation/ Incubation facility will be accessible 24x7 to students, staff and faculty of all disciplines and departments across the Institution including startup from vicinity.
- C. Pre-Incubation facilities will be taken care of by TINT Incubation Foundation, which will be a separate entity, registered under Section-8 of Company Act 2013. This will allow more freedom to Business Incubators in decision making with minimum administrative hassles for executing the programs related to innovation, *Intellectual Property Rights (IPR)* and Startups. Moreover, they will have better accountability towards investors supporting the incubation facility.
- D. *Business Incubator (BI)* will offer mentoring and other relevant services through Pre-incubation/ Incubation process in-return for fees, equity sharing and (or) zero payment basis. The modalities regarding Equity Sharing in Startups supported through BI will depend upon the nature of services offered.

3. Nurturing Innovations and Startups

- A. TINT will establish processes and mechanisms for easy creation and nurturing of Start-ups/ Enterprises by students, staff (including temporary or project staff), faculty, alumni and potential start up applicants even from outside the institutions.
- B. Business Incubator will define the processes and will ensure to achieve the following:
 - i. Incubation support: Pre-incubation & Incubation facility to start-ups by students, staff and faculty for mutually acceptable time-frame.
 - ii. TINT will allow to take IPR license on the developed 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.
 - iii. TINT may allow their students / staff to work on their technical/ non-technical innovative projects and setting up start-ups (including Social Start-ups) or work as intern/ part-time in start-ups (incubated in any recognized Incubators) while studying / working with due approval of competent authority. Student Entrepreneurs may earn credits for working on innovative prototypes/ Business Models. TINT will develop clear guidelines to formalize this mechanism. Student inventors may also be allowed to opt for start-up in place of their mini project/ major project, seminars, summer trainings. The areas in which student wants to initiate a start-up may be

Signature

8





TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in

TINT Innovation and Startup Policy



interdisciplinary or multidisciplinary. However, the students must describe how they will separate and clearly distinguish their ongoing research activities as a student from the startup works.

- C. Students who are under incubation, but are pursuing some entrepreneurial ventures while studying will be allowed to use their address in the institute to register their company with due permission from the Director, TINT.
- D. Students entrepreneurs will be allowed to sit for the examination, even if their attendance is less than the minimum permissible percentage, with due permission from Director, TINT.
- E. TINT will allow their students to take a semester/ year break (or even more depending upon the decision of Review Committee constituted by the Institution) to work on their start-ups and re-join late in the academics to complete the course. Student entrepreneurs may earn academic credits for their efforts while creating an enterprise. TINT will set up a Review Committee for reviewing the startup by students, and based on the progress made, Institute may consider giving appropriate credits for academics.
- F. TINT will explore provision of accommodation to the entrepreneurs within the campus for some period of time.
- G. TINT may allow faculty and staff to take off for a semester / year (or even more depending upon the decision of Review Committee constituted by the Institution) as sabbatical/ unpaid leave/ earned leave for working on startup and come back. Institution may consider allowing use of its resource to faculty/ students/ staff desiring 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.
- H. TINT will facilitate the startup activities/ technology development by allowing students/ faculty/ staff to utilize Institution infrastructure and facilities, as per the choice of the entrepreneur in the following manners:
 - i. Short-term/ six-month/ one-year part-time entrepreneurship training.
 - ii. Mentorship support on regular basis.
 - iii. Facilitation in a variety of areas including technology development, ideation, creativity, design thinking, fund raising, financial management, new venture planning, business development, product development, social entrepreneurship, product costing, marketing, brand-development, human resource management etc as well as law and regulations impacting a business.

[Handwritten signature]





TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in



TINT Innovation and Startup Policy

- iv. Institution may also link the startups to other seed-fund providers/ venture funds or itself may set up seed-fund once the incubation activities mature. Further, necessary incentive in terms of resources, infrastructure, finance, time and support for students and faculties will be provided as per need basis.
 - v. Institute will allow Licensing of IPR as per policy norm.
- I. In return of the services and facilities, Business Incubator may take 2% to 9.5% equity/ stake in the startup/ company, based on brand used, faculty contribution, support provided and use of institute's IPR (a limit of 9.5% is suggested so that Institution has no legal liability arising out of startup. The Institution will 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 can 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.
 - No restriction on shares that faculty / staff can take, as long as they do not spend more than 20% of office time on the startup 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 startup, then they will go on sabbatical/ leave without pay/ earned leave.
 - In case of compulsory equity model, Startup may be given provision for a cooling period of 3 months to use incubation services on rental basis to take a final decision based on satisfaction of services offered by the CIIS-BI.
- J. The BI will also provide services based on mixture of equity, fee-based and/ or zero payment model. So, a startup may choose to avail only the support, not seed funding, by the BI on rental basis.
- K. BI could extend this startup facility to alumni of the Institution as well as outsiders.
- L. Participation in startup related activities needs 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 startup.

[Handwritten signature]

10





TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in



TINT Innovation and Startup Policy

- M. Product development and commercialization as well as participating and nurturing of startups would now be added to a bucket of faculty-duties and each faculty would choose a mix and match of these activities (in addition to minimum required teaching and guidance) and then respective faculty are evaluated accordingly for their performance and promotion.
- N. Institution might also need to update/ change/ revise performance evaluation policies for faculty and staff as stated above.
- O. TINT and BI ensure that at no stage any liability accrue to it because of any activity of any startup.

4. Product Ownership Rights for Technologies Developed at TINT

- A. TINT facilities/ funds are used substantially or when IPR is developed as a part of curriculum/ academic activity, IPR is to be jointly owned by inventors and the institute TINT. The evaluation of Intellectual Property Right by TINT will be procured by the following means:
- Determining the ownership of IP and who made the intellectual contribution.
 - Determining whether an IP is innovative and qualifies the eligibility so given under respective statute in India or foreign countries.
 - Determining whether the IP has a reasonable chance for commercialization.
- B. Inventors and TINT 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
- Upfront fees or one-time technology transfer fees
 - Royalty as a percentage of sale-price
 - Shares in the company licensing the product (applicable after establishing SPV – Special Purpose Vehicle)
 - TINT will not hold the equity as per the current statute, so TINT's Incubation Cell (IIC) will hold equity on their behalf.

Handwritten signature





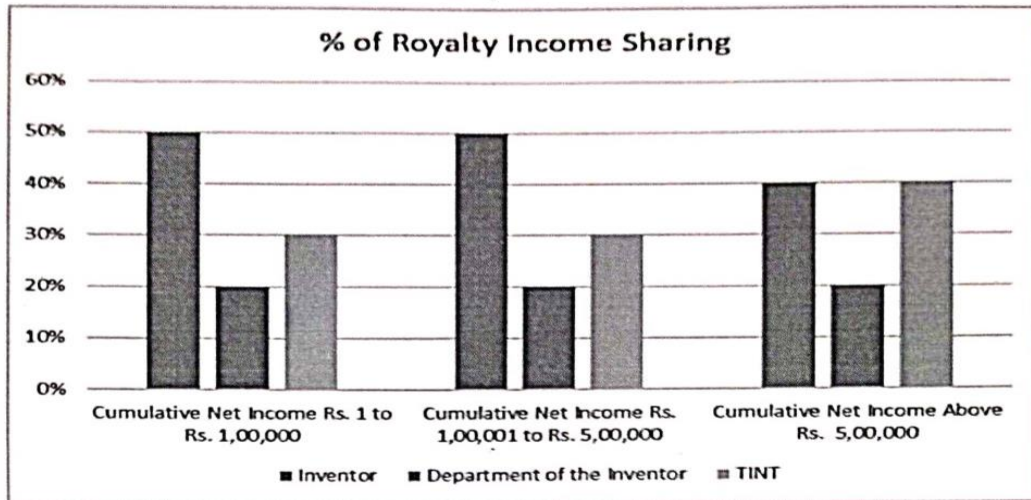
TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in

TINT Innovation and Startup Policy



- C. If one or more of the inventors wish to incubate a company and license the product to this company, the royalties would be 4% of sale price for hardware product and 2% for pure software product. If it is shares in the company, shares will again be 4% (after establishing SPV). For a pure software product licensing, there may be a revenue sharing to be mutually decided between the TINT Incubation Cell and the incubated company.
- D. 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 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.
- E. If there is a dispute in IPR ownership, a minimum five membered 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. TINT can use alumni/ faculty of other institutes as members, if they cannot find sufficiently experienced alumni / faculty of their own.

Signature

12





TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in

TINT Innovation and Startup Policy



- F. TINT's Incubation Center (IIC) 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; however in specific case, clarifications can be sought. If TINT pays for patent filing, the TINT will constitute a committee which can examine whether the IPR is worth patenting. The committee should consist of faculty who have experience and excelled in technology translation. If inventors are using their own funds or non- institute funds, then they alone should have a say in patenting.
- G. TINT's decision-making body with respect to incubation/ IPR/ technology- licensing will consist of faculty and experts who have excelled in technology translation.
- H. Interdisciplinary research and publication on startup and entrepreneurship shall be promoted by TINT. The record for which may be maintained by the R&D cell of the TINT as well as R&D committee of the individual departments related to this.

5. Organizational Capacity, Human Resources, and Incentives

- A. TINT may recruit staff that have a strong innovation and entrepreneurial/ industrial experience, behavior, and attitude. This will help in fostering the Innovation and Entrepreneurial ethos.
- Some of the relevant faculty members with prior exposure and interest should be deputed for training to promote knowledge up gradation in innovation and entrepreneurial culture.
 - To achieve better engagement of staff in entrepreneurial activities, TINT Policy on career development of staff/ faculty should be developed with constant up skilling.
 - Faculty and departments of the TINT will work in coherence and cross-departmental linkages will be strengthened through shared faculty, cross-faculty teaching and research in order to gain maximum utilization of internal resources and knowledge.
- B. Periodically some external subject matter experts such as guest lecturers or alumni can be engaged for strategic advice and bringing in skills which are not available internally.
- C. Faculty and staff will be encouraged to do courses on innovation, entrepreneurship management and venture development.

Signature

13





TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in

TINT Innovation and Startup Policy



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

- i. The reward system for the staff/ faculty may include sabbaticals, office and lab space for entrepreneurial activities, reduced working/ teaching loads, awards, trainings, etc.
- ii. The recognition of the stakeholders may include offering use of facilities and services, strategy for shared risk, as guest teachers, fellowships, associate-ships, etc.
- iii. A performance matrix will be developed and used for evaluation of annual performance.

6. Creating Innovation Pipeline and Pathways for Entrepreneurs at TINT

A. To ensure exposure of maximum students to innovation and pre-incubation activities at their early stage and to support the pathway from ideation to innovation to market, mechanisms will be devised at TINT institutional level.

- i. Spreading awareness among students, faculty and staff about the value of entrepreneurship and its role in career development or employability should be a part of the TINT entrepreneurial agenda.
- ii. Students/ staff will be taught that innovation (technology, process or business innovation) is a mechanism to solve the problems of the society and consumers. Entrepreneurs should innovate with focus on the market place.
- iii. Students/ staffs/ faculties will be encouraged to complete a number of International/ National Online certification courses on Entrepreneurship programme under Swayam NPTEL/ edx / Coursera.
- iv. Students will be encouraged to develop entrepreneurial mindset through experiential learning by exposing them to training in cognitive skills (design thinking, critical thinking, etc.), by inviting first generation local entrepreneurs or experts to address young minds. Initiatives like idea and innovation competitions, hackathons, idea-submission/ abstract submission competition, workshops, boot camps, seminars, webinars, symposiums, conferences, exhibitions, mentoring by academic and

Handwritten signature

14





TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in



TINT Innovation and Startup Policy

industry personnel, throwing real life challenges, awards and recognition will be routinely organized.

- v. To prepare the students for creating the start up through the education, integration of education activities with enterprise-related activities will be done.
- B. TINT will link their start-ups and companies with wider entrepreneurial ecosystem and by providing support to students who show potential, in pre-startup 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.
- C. TINT has already established *Institution's Innovation Councils (IICs)* as per the guidelines of MHRD's Innovation Cell. Now, TINT-IICs will allocate appropriate budget for its activities. IICs should 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.
- D. For strengthening the innovation funnel of the TINT, access to financing must be opened for the potential entrepreneurs.
- i. Networking events must be organized to create a platform for the budding entrepreneurs to meet investors and pitch their ideas.
 - ii. Provide business incubation facilities: premises at subsidized cost. Laboratories, research facilities, IT services, training, mentoring, etc. will be accessible to the new startups.
 - iii. A culture needs to be promoted to understand 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.
- E. TINT must develop a ready reckoner of Innovation Tool Kit, which must be kept on the homepage on Institute's website (for open access) to answer the doubts and queries of the innovators and enlisting the facilities available at the institute.
- F. The working of Innovation Pipeline and Pathways for Entrepreneurs at TINT is briefly summarized in the Fig. 1.

R. Anand

15



TINT Innovation and Startup Policy

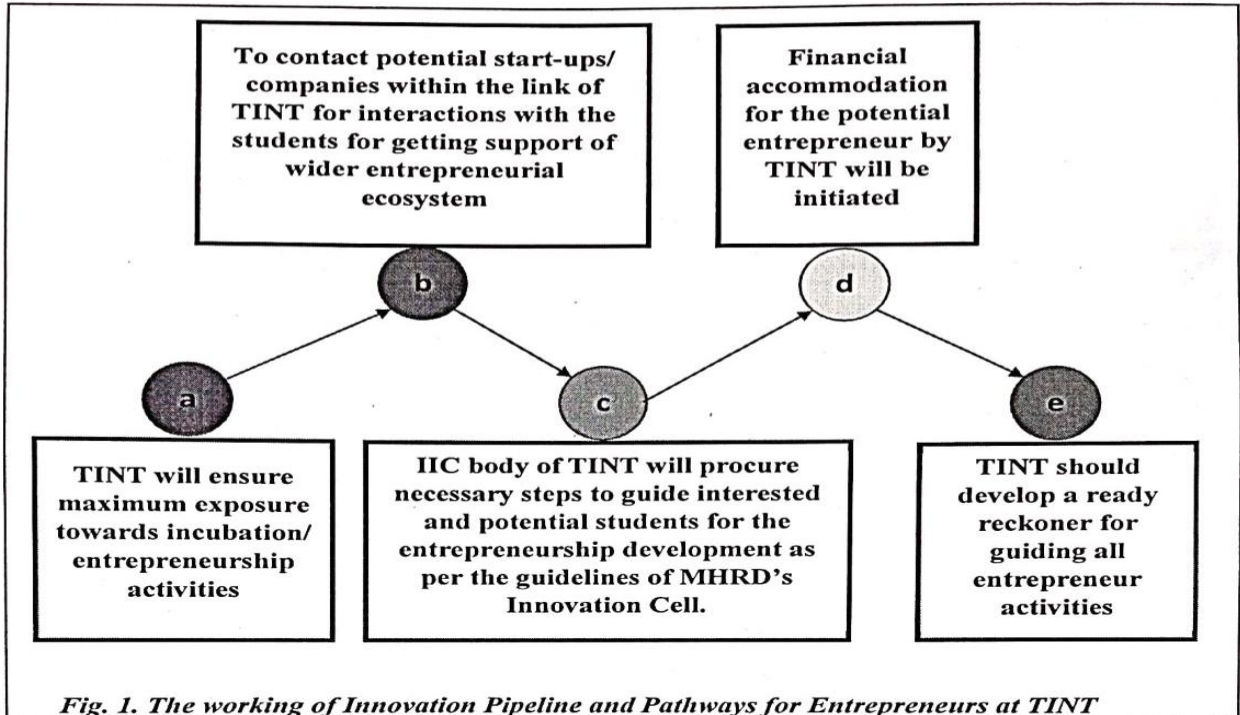


Fig. 1. The working of Innovation Pipeline and Pathways for Entrepreneurs at TINT

7. Norms for Faculty Startups at TINT

A. For better coordination of the entrepreneurial activities, norms for faculty to involve in startups will be created by TINT. Only those technologies will be taken for faculty startups which originate from within TINT itself.

- Role of faculty may vary from being an owner/ direct promoter, mentor, consultant, or as on-board member of the startup.
- TINT will work on developing 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 startup activities.

Signature





TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in



TINT Innovation and Startup Policy

- iii. Faculty startup may consist of faculty members alone or with students or with faculty of other institutes or with alumni or with other entrepreneurs.
- B. In case the faculty/ staff holds the executive or managerial position for more than three months in a startup, they will go on sabbatical/ leave without pay/ utilize existing leave.
- C. Faculty must clearly separate and distinguish on-going research at TINT from the work conducted at the startup/ company. Faculty must not involve research staff or other staff of TINT in activities at the startup and vice-versa.
- D. 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 TINT) may be permitted to the faculty.
- E. Faculty must not accept gifts or salary from the startup.
- F. Human subject related research in startup should get clearance from ethics committee of TINT.

8. Pedagogy and Learning Interventions for Entrepreneurship Development

- A. Diverse approach should be adopted to produce desirable learning outcomes, which will include cross disciplinary learning using mentors, labs, case studies, games, etc. in place of traditional lecture-based delivery.
 - i. Student clubs/ bodies/ departments will be created for organizing competitions, boot camps, workshops, awards, etc. These bodies will be involved in TINT strategy planning to ensure enhancement of the student's thinking and responding ability.
 - ii. Innovation champions will be nominated from the students/ faculty/ staff for each department/ stream of study. TINT should start annual 'Innovation & Entrepreneurship Award' to recognize outstanding ideas, successful enterprises, and contributors for promoting innovation and enterprises ecosystem within the institute.
 - iii. For creating awareness among the students, the teaching methods will include case studies on business failure and real-life experience reports by startups.

Pranami

17





TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in

TINT Innovation and Startup Policy



- iv. Tolerating and encouraging failures: Traditional 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. Importantly, this will be a part of TINT philosophy and culture.
- B. 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 will be made available to the students.
- To evolve a culture of collaboration and engagement with external environment, TINT focuses on the integration of expertise of the external stakeholders in the entrepreneurship education.
 - In the beginning of every academic session, TINT should conduct an induction program about the importance of Innovation and Entrepreneurship, so that freshly inducted students can be made aware about the entrepreneurial agenda of TINT and MAKAUT, the affiliating University and available support systems. Curriculum for the entrepreneurship education will be continuously updated based on entrepreneurship research outcomes. This will also include case studies on failures.
 - Industry linkages will be leveraged for conducting research and survey on trends in technology, research, innovation, and market intelligence.
 - Sensitization of students will be done for their understanding on expected learning outcomes.
 - Student innovators, startups, experts must be engaged in the dialogue process while developing the strategy so that it becomes need based.
 - Customized teaching and training materials will be developed for startups.
 - It is to be noted that not everyone can become an entrepreneur. The entrepreneur is a leader, who would convert an innovation successfully into a product, others may join the leader and work for the startup. It is important to understand that entrepreneurship is about risk taking. One must carefully evaluate whether a student is capable and willing to take risk.

[Handwritten signature]

18





TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in

TINT Innovation and Startup Policy



- C. 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 TINT for inculcating entrepreneurial culture will be constantly reviewed and updated.

9. Collaboration, Co-creation, Business Relationships and Knowledge Exchange

- A. TINT will pay prime importance in the stakeholders' engagement in the entrepreneurial agenda. TINT would like to 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.
- To encourage co-creation, bi-directional flow/ exchange of knowledge among people will be ensured between institutes/ organisations such as incubators, software technology parks of India and science parks, etc.
 - TINT will organize networking events for better engagement of collaborators and will open up the opportunities for staff, faculty and students to allow constant flow of ideas and knowledge through meetings, workshops, and lectures etc.
 - TINT will develop the mechanism to capitalize on the knowledge gained through these collaborations.
 - Care will be taken to ensure that events don't become an end goal; the first focus of the Incubator/ Incubation centres will be to create successful ventures.
- B. TINT will develop policy and guidelines for forming and managing the relationships with external stakeholders.
- C. Knowledge exchange through collaboration and partnership will be made a part of TINT policy and Institute will ensure to provide support mechanisms and guidance for creating, managing, and coordinating these relationships.
- Through formal and informal mechanisms such as internships, teaching and research exchange programmes, clubs, social gatherings, etc., faculty, staff and students of TINT will be given the opportunities to connect with their external environment.
 - Connect of TINT with the external environment must be leveraged in form of gathering information and experience from the external ecosystem into the Institute environment.

R. Jonamui

19



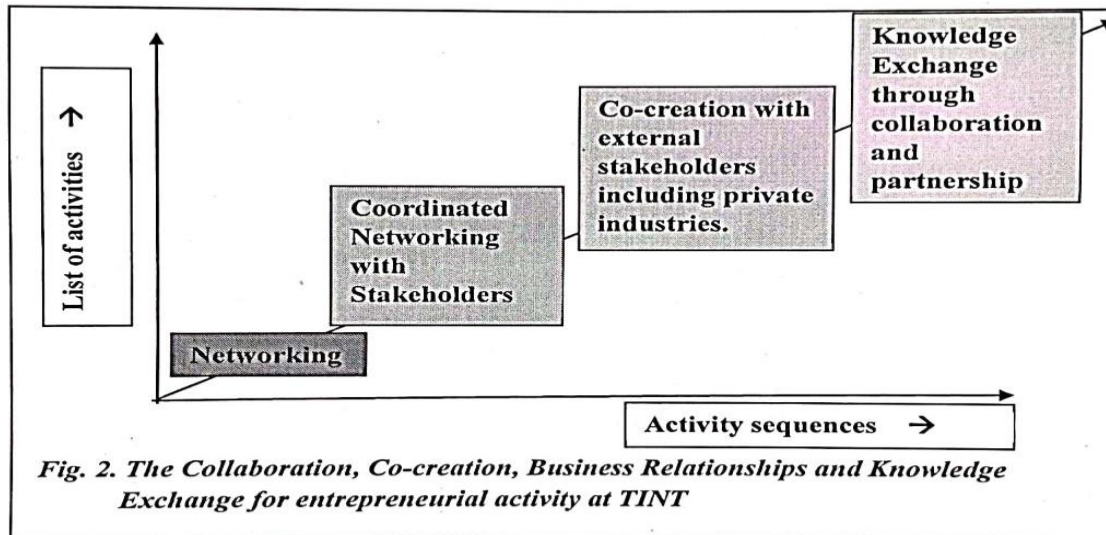


TINT Innovation and Startup Policy



- iii. *Single Point of Contact* (SPOC) mechanism will be created in TINT for the students, faculty, collaborators, partners and other stakeholders to ensure access to information.
- iv. Mechanisms will be devised by TINT to ensure maximum exploitation of entrepreneurial opportunities with industrial/ and commercial collaborators.
- v. Knowledge management will be done by TINT through development of innovation knowledge platform using in-house *Information & Communication Technology* (ICT) capabilities.

The Collaboration, Co-creation, Business Relationships and Knowledge Exchange for entrepreneurial activity at TINT is briefly expressed in the Fig.2 as given below.



10. Entrepreneurial Impact Assessment

A. Impact assessment of Institution entrepreneurial initiatives such as pre-incubation, incubation, entrepreneurship education will be performed regularly using well defined evaluation parameters.

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

Pranavi





TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in

TINT Innovation and Startup Policy



- ii. Number of start-ups created, support system provided at the Institution level and satisfaction of participants, new business relationships created by the Institution will be recorded and used for impact assessment.
 - iii. Impact will also be measured for the support system provided by the TINT to the student entrepreneurs, faculty and staff for pre-incubation, incubation, IPR protection, industry linkages, exposure to entrepreneurial ecosystem, etc.
- B. Formulation of strategy and impact assessment will go hand in hand. The information on impact of the activities will be used while developing and reviewing the entrepreneurial strategy.
- C. Impact assessment for measuring the success will be in terms of sustainable social, financial and technological impact in the market. At the pre-commercial stage, development of sustainable enterprise model is important and critical. Commercial success is the only measure in the long run.

The various parameters to be considered for Entrepreneurial Impact Assessment are as under:

- a. Satisfaction of the participants in micro/ degree certification program, workshops and training programs
- b. Participation in awareness programs
- c. Utilization of pre-incubation facilities by students
- d. Number of curriculum projects addressing real life problems
- e. Participation in various idea, Prototype, business plan competitions and hackathons
- f. Participation in pitching for fund raising and grants/ support from Government and non-government agencies
- g. Contribution in industrial projects and consultancy projects
- h. Idea to POC projects, POC to Prototype/ MVP projects
- i. Product development and its launching in the market
- j. Fund raising and Annual Turn over
- k. Startup registrations and company incorporation
- l. IPR application filing, grant and commercialization

Pranavi





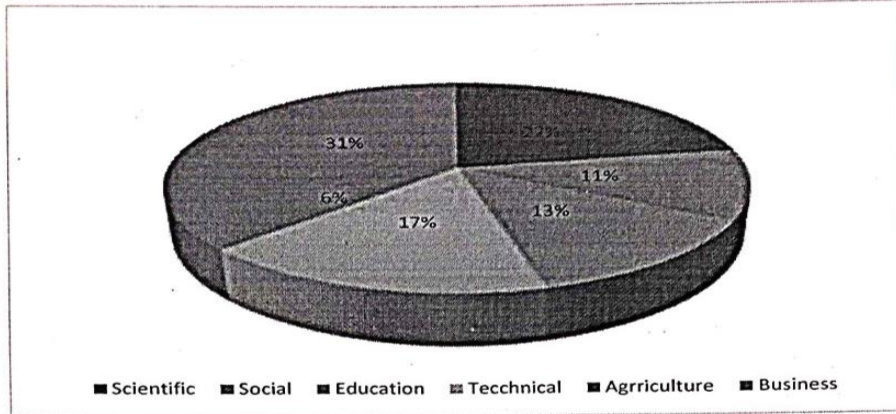
TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in

TINT Innovation and Startup Policy



Review of the Policy

Considering the feedback from Assessment Team which is the reflection of impact of the existing policy, Director, TINT shall organize the Review Committee meeting and finalize the recommendations of the review committee.

Way Forward

Successful implementation of the 'TINT Innovation and Startup Policy' for students and faculty is the main objective. In order to achieve this, full-fledged support of all the academic, non-academic and supporting departments will be important. The roadmap suggested through this document is 'broad guidelines' and this policy document is supported by previously existing policy documents on Innovation and Entrepreneurship council, IPR, Industry-Institute interaction and research and development.

This policy is prepared by NISP Committee under the supervision of Prof. (Dr) Pradip Kumar Ghosh, NISP Co-ordinator at Techno International New Town.

Pradip Kumar Ghosh





Composition of IIC, 2022-23

President:	Prof. (Dr) Radha Tamal Goswami Director, Techno International New Town
Vice President:	Dr. Abhijit Patra Associate Professor, Department of Mechanical Engineering Techno International New Town
Convenor:	Dr. Sanjoy Das Neogi Associate Professor, Department of Civil Engineering Techno International New Town
Coordinators:	<ol style="list-style-type: none">I. Dr. Subhankar Bhattacharjee Innovation Activity CoordinatorII. Dr. Partha Pratim Chakrabarty Start-up Activity CoordinatorIII. Soumya Kanti Das Internship CoordinatorIV. Dr. Papiya Debnath IPR Activity CoordinatorV. Swagata Paul Social Media CoordinatorVI. Dr. Satyabrata Maity ARIIA CoordinatorVII. Anindita Chakrabarti NIRF Coordinator
Members:	<ol style="list-style-type: none">1. Prof. Ipsita Ghatak, Assistant Professor, MBA Department2. Prof. Susma Verma, Assistant Professor, EE Department3. Mr. Subhajit Maitra, BSH Department, TINT4. Prof. Abhijit Bhagat, Assistant Professor, AEIE5. Prof. Sarbani Dasgupta, Assistant Professor, MCA6. Prof. Nantu Das, Assistant Professor, AEIE7. Prof. Ardhendu Shekhar Biswas, Assistant Professor, ECE8. Prof. Arindam Roy Goswami, Assistant Professor, ME9. Dr. Syamasree Biswas Raha, Assistant Professor, EE10. Dr. Partha Pratim Biswas, Assistant Professor, BSH Dept.11. Prof. Sourav Mahapatra, Assistant Professor, IT12. Mr. Sandipan Ghosal, CSE13. Gourav Bhowal, Civil Engineering14. Soumick Ghosh, Civil Engineering15. Arijit Banerjee, Civil Engineering16. Arijit Mitra, Mechanical Engineering



TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in

17. Debojyoti Pal, Mechanical Engineering
18. Ranajit Mukherjee, Mechanical Engineering
19. Arnab Misra, Mechanical Engineering
20. Joy Debnath, Mechanical Engineering
21. Joy Chakraborty, Mechanical Engineering
22. Dipendu Sarkar, Applied Electronics and Instrumentation Engineering
23. Sayan Dinda, Applied Electronics and Instrumentation Engineering
24. Arghya Sahoo, CSE
25. Sreya Deb, CSE
26. Subhangi Singh, CSE
27. Nakshatra Sarkar, EE
28. Riya Gupta, EE
29. Arkaprava Sahana, EE
30. Krishnanjan Mukherjee, EE
31. Debdoot Dey, EE
32. Shaunak Chatterjee, EE
33. Rik Biswas, IT
34. Raisa Alam, IT
35. Anirban Chakraborty, IT
36. Debopriyo Bose, MCA
37. Arpan Samanta, MCA
38. Diganta Podder, MCA
39. Sweta Sharma, MCA
40. Poulomi Mazumder, MCA
41. SK Anis Ali, MCA
42. Medha Das, IT

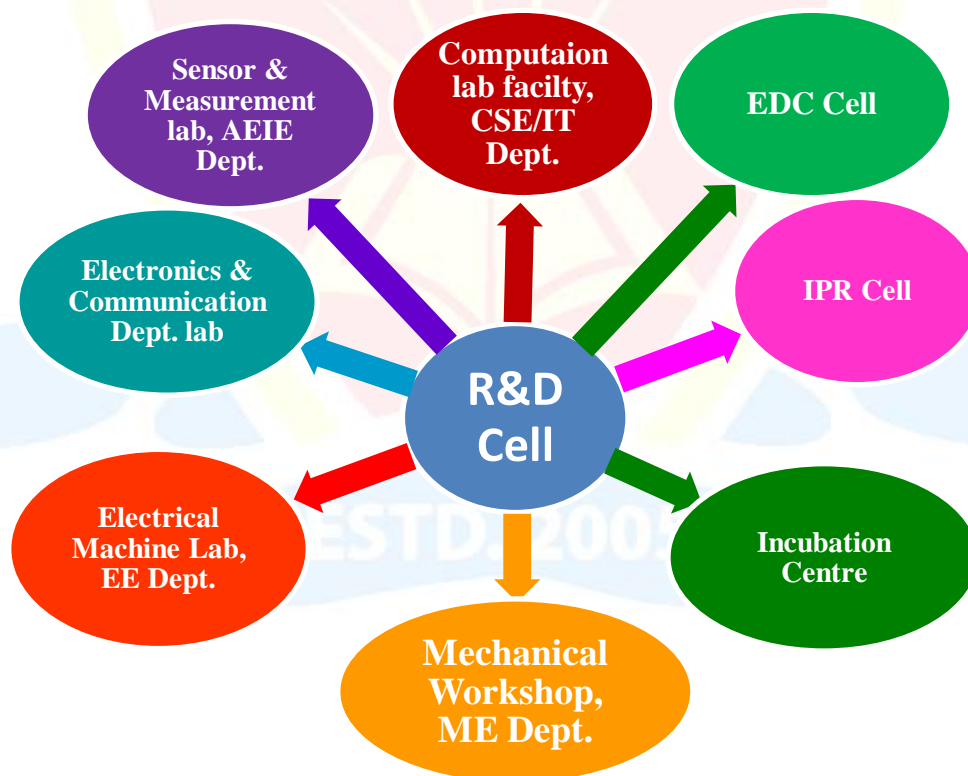
ESTD. 2005

Research and Development (R&D) Policy

Techno International New Town is a reputed institute known for delivering top-notch technical education for more than twenty years. To fulfill the institution's Vision and Mission, it's crucial to establish a strong foundation for excellent research endeavours and encourage a culture of research among students and faculty alike. The main goal of the institution's research and development efforts is to nurture a spirit of inquiry and support the professional development of both teachers and students. Through these initiatives, Techno International New Town aims to promote a vibrant research culture that benefits everyone involved in the learning process.

Improving high-quality scientific and technological research is essential for addressing societal needs effectively. The Institute emphasizes excellence in research and innovation. Alongside traditional research and development efforts, there's a clear focus on advancing both technical knowledge and addressing societal challenges. Our dedication lies in promoting research that positively impacts society. To strengthen our research culture, the local management committee, led by the Head of Institute (HOI), has appointed Coordinators for Research and Development, Industry Relations, Faculty Development, IPR, and Entrepreneurship. They are tasked with shaping policies and initiating various research and development projects while ensuring the institute's research vision is communicated effectively across all departments.

R&D Cell Structure





Roles and Responsibilities of R & D Cell:

The R&D Cell holds pivotal roles and responsibilities within the institution, facilitating the advancement of research and development initiatives. Its primary duties include:

Strategic Planning: Formulating and implementing strategic plans to align research activities with the institution's goals and objectives.

Coordination: Facilitating coordination among faculty members, departments, and external stakeholders to foster collaborative research efforts.

Funding and Grants: Identifying funding opportunities, assisting researchers in securing grants, and managing financial resources for research projects.

Policy Development: Developing policies and guidelines to govern research activities, ensuring compliance with ethical standards and regulatory requirements.

Capacity Building: Organizing workshops, seminars, and training programs to enhance the research capabilities of faculty members and students.

Industry Collaboration: Facilitating partnerships with industry stakeholders to promote applied research, technology transfer, and commercialization of innovations.

Intellectual Property Management: Advising on intellectual property rights, patent filing, and commercialization strategies to protect and capitalize on research outcomes.

Research Promotion: Promoting research achievements through publications, conferences, and networking events to enhance the institution's reputation and visibility in the academic community.

Monitoring and Evaluation: Monitoring the progress of research projects, evaluating their impact, and disseminating findings to stakeholders for informed decision-making.

Continuous Improvement: Continuously reviewing and refining R&D processes, policies, and practices to foster a culture of innovation and excellence within the institution.

Primary objectives of the R & D cell:

- Encourage faculty and students to pursue internships and collaborate on research with other reputed institutes.
- Promoting the pursuit of PhDs, knowledge production and training initiatives.
- Facilitating revenue generation for faculty through consulting, research projects, training and patents.
- Recognizing and incentivizing faculty and students for significant contributions to research.
- Introducing modification to the teaching-learning process to enhance students' research capabilities, such as project-based learning and industry internships.
- Developing and applying research quality objectives in alignment with the objectives of the Academic Committee and IQAC.



TECHNO INTERNATIONAL NEW TOWN

(Formerly known as Techno India College of Technology)

Block - DG 1/1, Action Area 1, New Town, Kolkata - 700156, West Bengal, India

Contact: +91-33-2324-2050/2090/2091 • <https://tint.edu.in> • info@tint.edu.in

- Formulating policies and strategies for faculty involvement in sponsored research projects and securing funding from agencies.
- Increasing Industry Institute Interactions (III) for meaningful collaborations on projects, faculty training, guest lectures and student internships.
- Creating an IPR unit that will provide sponsorships to assist teachers in filing patents and commercializing them
- Creating an incubation center to foster entrepreneurship and provide resources for students and professors to develop innovative ideas, prototypes, and secure funding for their projects.
- Proposing and implementing a research budget to optimize infrastructure and fund utilization.
- Establishing a research culture through the organization of seminars, workshop, conferences and events.
- Identifying and addressing areas where faculty requires additional training.
- Each department benefits from mentorship provided by experts from prestigious institutions like IIT and other recognized organizations.
- Formulating a policy framework for the TINT Research Grant program.
- Establishing a policy for the delegation of seminar/conferences and workshops.
- Encouraging faculty and Teaching Assistants (TAs) to pursue higher studies, including PhDs and B.Tech/M.Tech degrees.

Roles of IQAC in R & D:

The Internal Quality Assurance Cell (IQAC) plays a crucial role in Research and Development (R&D) within an academic or research institution. Here are some of the key roles of IQAC in R&D:

Quality Assurance: IQAC ensures research quality through the development and implementation of guidelines, standards, and benchmarks, fostering high-quality standards in R&D.

Monitoring and Evaluation: IQAC monitors and evaluates R&D activities for compliance with institutional and regulatory standards, assessing effectiveness, identifying areas for improvement, and initiating corrective actions as needed.

Capacity Building: IQAC fosters research capacity building by organizing workshops, seminars, and training programs, and providing resources for faculty, researchers, and students to enhance skills in research methodologies, data analysis, and proposal writing.

Promotion of Research Culture: IQAC cultivates a dynamic research culture by encouraging and supporting faculty and students to participate in research, fostering an environment conducive to interdisciplinary collaboration, innovation, and creativity.



Ethical Oversight: IQAC ensures ethical standards and research integrity by reviewing proposals for compliance, addressing ethical concerns, and promoting responsible research conduct across all R&D activities.

Documentation and Reporting: IQAC maintains thorough documentation of R&D endeavors, encompassing projects, publications, patents, and collaborations, while also generating periodic reports to assess and accredit both internal performance and external achievements.

Benchmarking and Best Practices: IQAC compares R&D activities to national and international standards, identifying strengths and areas for improvement, and promotes the adoption of innovative approaches to enhance research quality and impact.

Stakeholder Engagement: IQAC fosters collaboration with diverse stakeholders, including industry partners, funding agencies, government bodies, and the communities, to establish research partnerships, secure funding, and disseminate findings for societal advancement.

Overall, IQAC plays a pivotal role in ensuring the effectiveness, integrity, and impact of R&D initiatives within an institution, contributing to its academic excellence and reputation in the research community.

A. R & D Cell's Vision/Mission:





B. R & D Cell Committee Members:

R & D cell has been established since inception of the college. The constituent members of present Institutional R& D Cell are as follows.

Sl. No.	Name of the Member	Institute/Department Affiliation	Member designation
1.	Prof.(Dr.) Ayan Chakraborty	Principal-in-Charge	Chairman
2.	Prof. (Dr.) Manabendra Maiti	Prof. ECE Department	Coordinator (R&D)
3.	Prof.(Dr.) Swagata Paul	Academic Coordinator, Head, CSE Dept.	R&D Head, CSE Dept.
4.	Prof.(Dr.) Pradip K. Ghosh	Academic Head, ECE Dept.	R&D Head, ECE Dept.
5.	Prof.(Dr.) Nilanjan De	Associate Prof., CSE Dept.	Member (Research collaboration In-charge)
6.	Prof.(Dr.) Satyabrata Maity	Associate Prof., IT Dept.	Member
7.	Prof. (Dr.) Papia Debnath	Associate Prof., BSH Dept.	Member (IPR In-charge)
8.	Prof.(Dr.) Sayantika Bose Chakraborty	Academic Head, BSH Dept.	Member
9.	Prof. Ipsita Ghatak	Academic Head, MBA Dept.	Member (Business Incubation In charge)
10.	Prof.(Dr). T. K. Nandi	Academic Head, ME Dept.	R&D Head, ME Dept.
11.	Prof (Dr.) Milan Basu	Academic Head, EE Dept.	R&D Head, EE Dept
12.	Prof. Bikash Sadhukhan	Assistant Prof. CSE Dept.	Member
13.	Prof. (Dr.) Sanjoy Das Neogi	Academic Head, CE Dept.	R&D Head, CE Dept.
14.	Prof. Indrajit Pandey	Academic Head, AEIE Dept.	R&D Head, AEIE Dept.
15.	Prof.(Dr.) Partha Pratim Chakraborty	Assistant Prof. BSH Dept.	Member
16.	Prof. Hemanta De	Assistant Prof. MCA Dept.	Member
17.	Dr. Amlan Ghosh	Academic Head, MCA Dept.	R&D Head, MCA Dept.
18.	Dr. Nilanjana Dutta Roy	Associate Prof. CSE Dept.	Member
19.	Dr Arpita Chattopadhyay	Assistant Prof. BSH Dept.	Member
20.	Prof. Debashis Biswas	Assistant Prof. EE Dept.	Member
21.	Dr. Ratna Mondal	Assistant Prof. IT Dept.	Member



22	Dr Soma Bose Biswas	Associate Prof. MBA Dept.	Member
23	Dr. Nirmalya Maity	Associate Prof. IT Dept	Member
24	Dr. Shyamasree Biswas Raha	Assistant Prof. EE Dept.	Member
25	Vivekananda Mukherjee	Assistant Prof. ECE Dept.	Convener

C. Norms and Standards for the Research Grant Policy:

Institutional R & D budget is prepared based on the requisition received from the respective departmental R & D cell. The distribution of R & D budget duly approved by the BOG is as follows:

R&D Budget Break-up		
Sl. No	Category	Expenditure (%)
1	Internal Research Project	20%
2	Faculty Deputation and sponsorship: Training/STTP/Workshop/Seminar etc.:	20%
3	Seminar/Conference/Workshop/FDP/Expert talk organized by the R&D cell	25%
4	Project Competition/ Hackathon/ research article competition etc.	25%
5	Contingency and other expenses	10%

TINT management has approved funds to back academic research endeavors across diverse fields. This program aims to elevate research efforts, especially among junior faculty, and encourage them to seek substantial grants from different funding agencies. Below are the standards and guidelines of the scheme provided to assist faculty members in preparing their proposals.

Faculty research proposals will undergo review by the research review committee for approval. Assistant Professors may serve as principal investigators, with Professors or Associate Professors acting as Co-PIs or advisors.



Preference will be given to proposals that address multidisciplinary research areas and involve collaboration with professors from both within and outside the department (intra and interdepartmental).

The research committee will prioritize the approval of research proposals regardless of specific subjects or departments.

Projects will be selected based on peer evaluation and presentations of shortlisted concepts before the Expert Committee.

All assets funded by the project, such as equipment, books, and journals, will become the property of the institution and will be properly documented.

Research articles must be published in international peer-reviewed conferences or journals, including the institute's affiliation and recognition. A copy must be provided to the R&D department.

The project should involve the participation of at least two undergraduate students and/or one postgraduate

Guidelines for Internal Research Proposal

A research proposal serves as the initial step for faculty members to initiate or advance their research endeavors at the Institute. Here are the guidelines for writing research proposals:

Clearly outline the objectives of the proposal, including the current national and international research landscape, methodology, work plan, expected outcomes, and a two-year budget estimate.

Break down the budget estimate into categories such as equipment, consumables, contingencies, and books.

Follow institute procurement procedures for acquiring equipment, consumables, and components.

Present project progress to the project assessment committee every six months.

Release of the second installment of funds depends on the quality of work completed in the first stage and the utilization of 75% of funds from the first stage.

Submit an annual progress report, statement of accounts, and utilization certificate to the R&D office for subsequent grant release at the end of the financial year.

All Principal Investigators must publish their work in reputable international peer-reviewed conferences or journals.

Obtain signatures from the relevant department HOD and HOI on each bill before submitting them for audit.



Expenditure on items such as air conditioners, laboratory renovations, electronic devices, and furniture is as per Institute rules and regulation.

Each Institute-funded project must involve two undergraduate students and one postgraduate student.

The final research project report should include a technical report with conclusions (two hard-bound copies), published or presented papers (soft copy), statement of accounts, and utilization certificate.

Internal/external audits will be conducted after the financial year to assess the financial status of research projects.

Any additional resources that contribute to building the research culture at Institutes are permitted with approval from the Head of the Institute.

Policy Guideline for support to Faculty to attend conferences in India:

The faculty of Techno International New Town is encouraged to be actively engaged in research and also enhance and broaden their knowledge by participating in seminars/ workshop / conferences. Research finds its expression through publications in learned journals and through presentation of papers in Conferences and Seminars.

The following Policy Guidelines are laid down for providing financial support to faculty members for attending Conferences / Seminars in India.

1) **Eligibility:** All faculty members who have successfully completed their probation period and have regular / confirmed appointments will be eligible. (40% of dept. faculty eligible every year)

2) **Frequency of Support:** National/International Conferences / Seminars: Not more than once a year

3) **Level of Conferences / Seminars:**

The Conference/Seminar, to have an assurance that they are well recognized and are of high standard, are expected to be organized by an Institution of good standard or of a professionally high repute.

4) **Requirements for Participation:**

(i) **Essential:**

(i)(a) The paper should have been accepted for presentation

(i)(b) The paper must be peer reviewed in the Department / Centre to ensure that it is of sufficiently high quality and standard

(ii) **Preference Criteria**



- (ii) (a) The applicant has been invited to chair one or more sessions
- (ii) (b) The applicant has been invited to deliver a keynote /plenary/inaugural address:
- (ii) (c) The applicant has been invited to present the paper / papers in the International / National Conference:

5) **Financial Support:** As a policy, partial financial support will be provided to faculty members. The partial support will cover:

- (a) Full Registration Fee (max: 10K)
- (b) 50% of travel cost and daily allowance (railway AC3 Tire only)

6) Procedure:

The following documents will be forwarded to the Admin office through the HoD, R&D and HoI for approval at least one month in advance to give time for proper processing:

- (a) Synopsis and a copy of the Paper to be presented
- (b) Certificate from the Author about originality of paper and “No Objection”
- (c) Brochures of Seminar /Conference
- (d) Letter of Acceptance / Invitation from the organizers
- (e) Detailed information about the organizers of the International Conference/ Seminar and their credibility
- (f) Expenditure details as under:
 - (i) Registration Fee, (ii) Fare (iii) Board & lodging/other expenses (g) Detailed recommendation of the Head of the Institution

7) Duty Leave:

Faculty member(s) attending Conferences/Seminars may be granted “duty leave” for the period of Conferences/Seminars and actual journey period.

8) In exceptional cases, if recommended by the R&D Committee and HoI may waive certain conditions for granting permission and financial support.

1. Publications:

Faculty members publishing papers in reputable journals indexed in SCI/SCOPUS/UGC Care with a non-zero impact factor listed by Thompson Reuter’s Journal Citation Index (JCI) are eligible for financial assistance according to the Journal rubrics table below.

Additionally, for faculty publishing papers in renowned conferences, the college may sponsor publication or registration fees, capped at a maximum of Rs. 10,000 per financial year.

Table: Performance Evaluation Rubrics for TINT Researchers:



***Engineering and Basic science discipline Journal:**

S.No	Criteria Max. Marks=10 for each	Satisfactory (7 Marks)	Good (8 Marks)	Very Good (9 Marks)	Excellent (10 Marks)
1.	Journal Publications	Web of Science/UGC Care.	SCOPUS/ESI/SCI	SCI/SSCI/SCIE (IF \leq 1)	SCI/SSCI/SCIE (IF \geq 1)
2.	Technical Expertise (UG/PG/Ph.D.)	Seminars/Workshops/Conferences Attended	Memberships of Technical Societies (IEEE, IETE, ASME, CSI, ACM etc.)	Technical Certification Courses done apart from Ph.D. coursework. (AICTE/MAKAUT/UGC/Renowned foreign Institutes)	
3.	National Level Exams Passed	--	RET	GATE	UGC/CSIR NET etc

***Faculty/student will get partial financial benefits.**

SCI, SCIE, and ESCI are all citation databases maintained by Clarivate Analytics.

SCI stands for Science Citation Index, SCIE stands for Science Citation Index Expanded, and ESCI stands for Emerging Sources Citation Index.

These databases index and track the citation impact of scholarly articles, conference proceedings, and other materials in the natural sciences, engineering, and social sciences.

Scopus is another citation database, maintained by Elsevier. It covers a wider range of subjects than the Clarivate Analytics databases, including the arts and humanities, and it includes more international content.

Web of Science is a platform that provides access to the Clarivate Analytics citation databases, as well as other resources such as the Journal Citation Reports, which provide information on journal impact factors.

UGC CARE List is a list of journals maintained by the University Grants Commission of India. This list is used to determine the quality and eligibility of academic publications for the purpose of career advancement of Indian academics.



Conference:

1.	Conferences (Presentation/ Publication)	Presentation/publication in International Conference	Faculty presentation mandatory and must be first author. Exception for student authorship.	Partial financial benefits
2.	Externally awarded Project/Idea/Research article by the students (other than hackathon)		Financial benefit upto Rs. 2000/-	

Journals in English Language & Literature.

1. Arts & Humanities Citation Index
2. Academic Resource Index
3. EBSCO (EBSCO host & EBSCO Discovery Service)
4. MLA International Bibliography
5. Master FILE Premier
6. Scopus
7. Social Science Citation Index (SSCI)

For the above the faculty should be:

The first author, affiliated with TINT. OR

If the faculty member is not the first author, the first author should be a TINT student, and the work must be published with TINT affiliation.

2. **Patent:** As per IPR policy (IPR Cell)

Guidelines for Expenditure on Research for Funded Projects:

The faculty will be authorized to present the shortlisted research proposals only if the faculty applied to the research funding scheme through TINT and specified TINT as an affiliation on the proposal.

Publications:

Faculty members publishing papers in reputable journals indexed in SCI/SCOPUS/UGC Care with a non-zero impact factor listed by Thompson Reuter's Journal Citation Index (JCI) are eligible for financial assistance according to the Journal rubrics table below.

Additionally, for faculty publishing papers in renowned conferences, the college may sponsor publication or registration fees, capped at a maximum of Rs. 10,000 per financial year.



A faculty member publishes a paper in an Indian conference cited by Scopus, he/she will receive Travel Allowance (TA) and Daily Allowance (DA), along with On-Duty leave for the duration required to attend the conference.

The college does not provide sponsorship for conferences held outside India. However, faculty members may apply for sponsorship for national or international conferences and seminars organized within India.

G. Policy for Distribution of Overhead Charges by TINT: As per Institute rules and regulation policy:

H. Plagiarism:

Authors must cite others' work, even if they contributed to it as co-authors, editors, advisers, or students. All types of others' work, whether published or unpublished and in any format (written, oral, website), should be cited or credited. TINT employs “Drillbit software” to ensure submitted papers are plagiarism-free. UGC guidelines exclude certain elements from plagiarism checks, including public domain quotes, references, minor similarities, generic terms, and standard equations.

I. Data:

1. Integrity of Data:

Fabrication and falsification in research are serious misconducts, requiring researchers to prioritize accuracy and transparency. Predicted outcomes should not be prematurely published, and complete records of data should be maintained for evaluation of subsequent reports or conclusions. In laboratory research, data is typically recorded in indexed lab notebooks with detailed techniques and material documentation. Mistakes should be clearly marked and corrected, while all data should be contemporaneously recorded and securely stored. Unique materials must be properly labeled and stored. Social sciences and clinical biology face privacy challenges with coded data, necessitating transparent procedures for data access and redaction. Main data, including records and questionnaires, should be available for examination, with redaction possible to protect privacy. Access to redaction rules and processes should be provided for data reviewers to ensure transparency and integrity.

2. Use and Misuse of Data:

Researchers must be proficient in quantitative data processing, ensuring accurate graphical and tabular displays, error analysis, and reliability testing. All conclusions should stem from precisely documented facts, with full disclosure of relevant observations, including contradictory or unsupportive data. Failure to disclose such data, especially regarding confounding factors, constitutes research integrity breach. Validated explanations for disregarding data, backed by accepted statistical tests, must accompany published reports. Negative outcomes should be widely published. Deliberate misrepresentation of observations or image manipulation is considered research misconduct. Altering approved protocols or study designs without prior approval is improper and may constitute misconduct. Misusing



government grant funds for fabricated research is both unethical and a federal crime, potentially resulting in prosecution, restitution, fines, and/or imprisonment.

3. Ownership of and Access to Data:

Research data generated by TINT employees are owned by TINT, even after researchers have left. This is because TINT is the grantee of sponsored research awards. However, all members of the research group should have reasonable access to the data. If copyright or patent potential exists, a written agreement within the group should outline intellectual property rights. Researchers with patentable findings should submit an Invention Disclosure to TINT's IPR Cell.

4. Storage and Retention of Data:

Data should be securely stored for at least five years after project completion, final report submission, or research publication, as per sponsor requirements. Certain data may need depositing in the Institute library.

J. Authorship and Other Publication Issues:

Publication of research findings is essential for academic discourse, enabling other researchers to build on reported results. Institute scientists have an ethical obligation to adhere to publishing standards, ensuring thoroughness for result replication. Timely publication is crucial, but not at the expense of proper internal validation or interpretation assessment. While commercial sponsors can't veto publication, a six-month delay may accommodate patent application submission.

Criteria for Authorship:

All authors must be duly acknowledged in the publication, with co-authorship reflecting individual contributions. Authorship standards, often set by professional organizations and publications, typically require contribution to research topic formulation, data interpretation, report drafting, and readiness to defend the publication.

Order of Authors:

Authorship order conventions vary by discipline, but it's essential that all co-authors agree on the sequence beforehand. A corresponding or senior author typically listed first or last, should be designated for each paper. This individual is responsible for liaising with publishers, updating co-authors on review and publication status, and ensuring everyone approves the submitted manuscript. The corresponding author bears greater responsibility for the research integrity and must thoroughly comprehend and defend all aspects of the study.

3. Self-citations:

Authors should avoid misrepresenting the status of their unpublished work. A manuscript should not be labeled as submitted until officially submitted. Similarly, it shouldn't be labeled



as accepted for publication or in press unless the author has received confirmation from the editor or publisher, including galley or page proofs or an approval letter. This ensures accuracy and integrity in presenting the manuscript's status to the academic community.

4. Duplicate Publication:

Publishing the same paper in multiple places without proper citation or editor notification is discouraged, unless justified. Similarly, abstracts should not be replicated without acknowledgment. Inexplicable replication, termed self-plagiarism, can mislead readers about original research data. Submitting the same paper to multiple journals simultaneously is generally considered unethical across disciplines. Clear communication and proper citation are essential to maintain integrity in scholarly publishing.

5. Reporting Suspected Misconduct:

All academic community members must report suspected research misconduct to the Dean (R&D) as per Institute policy. Allegations are addressed confidentially, with no repercussions against those reporting in good faith. Confidentiality is prioritized, ensuring a fair process for all involved.

6. Special Obligations in Human Subject Research:

Institute Ethics committees must pre-approve human subject research protocols, ensuring acceptable risks and accurate, understandable communication of risks and benefits to participants.

K. Institution has created an eco-system for innovations including Incubation centre and other initiatives for creation and transfer of knowledge:

The institute established the Intellectual Property Right cell (IPR) and Business Incubation Cell from its inception, supported by college management. The goal of IPR/BI is to aid incubates in establishing successful businesses by collaborating with various partners and service providers. The center conducts seminars to educate students on financing, startup environments, incubation, and related services. BIC encourages students to submit innovative ideas for incubation, which undergo screening and further consideration. Proposals are evaluated based on potential, practicality, value proposition, and market assessment. These initiatives aim to ignite the region's Innovation & Entrepreneurship ecosystem, fostering creativity, business acumen, and collaboration among students and partners.

Intellectual Property Right (IPR) Policy:

The provided document outlines an Intellectual Property Rights Policy for Techno International New Town, Kolkata. Here's a summary :(**The details report is available in the IPR Cell):**



Preamble: Intellectual property is crucial for providing a competitive edge to an organization. The policy aims to guide staff, students, and outside agencies on intellectual property rights (IPR) practices and rules to promote academic freedom and research development.

Scope: The policy aims to create an environment conducive to developing intellectual property, safeguarding academic freedom, and establishing standards for intellectual property management.

Objectives: The objectives include promoting academic freedom, providing a reference system for IPR issues, ensuring fair distribution of returns from intellectual property, introducing IP management practices, providing legal support, and fostering innovation.

Intellectual Property and Ownership: The policy addresses copyright ownership for various works and outlines ownership rules for patents, emphasizing the Institute's ownership in certain cases.

IP Protection and Technology Transfer: Procedures for IP protection, patent filing, and technology transfer are detailed, including the involvement of committees and consultants.

Registration of Patents and Copyrights: Guidelines for filing patent applications in India and foreign countries are provided, along with provisions for financial support.

Revenue Sharing: Revenue sharing arrangements are outlined, including options for creators to reinvest in new research projects.

IPR Administration: The legal status, structure of advisory/review committees, role of consultants, infringement resolution, and dispute resolution mechanisms are detailed.

Overall, the policy aims to foster innovation, protect intellectual property rights, and ensure fair distribution of benefits within the Institute.

Innovation, Entrepreneurship and Incubation : (The details policy report is available in Business Incubation Cell)

Innovation is paramount in the 21st century, with TINT dedicated to fostering a sustainable innovation ecosystem. Through exposure to new ideas and processes, TINT encourages young students, nurturing their innovative potential. Leveraging the problem-solving skills and entrepreneurial acumen of students and faculty, TINT promotes robust intra and inter-institutional partnerships. Aligned with the National Innovation and Start-up Policy of India, and in coordination with AICTE and UGC policies, TINT focuses on enhancing its innovation and entrepreneurial ecosystem. As a pioneer in West Bengal, TINT has formally adopted the National Innovation and Start-up Policy 2019, establishing an Institution Innovation Cell (IIC) to cultivate an innovative culture among students and faculty.

By participating in this initiative, TINT becomes part of a nationwide network fostering innovation and entrepreneurship, enriching the experiences of its students and faculty.