Action taken on the NAAC peer team recommendations – 2016 Visit

August 30, 2018

Submitted to National Assessment and Accreditation Council Bangalore

Thapar Institute of Engineering and Technology, Patiala (Punjab) – India

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1. Strategic Planning required to transform from a traditional engineering education to a multidisciplinary centre of excellence in higher education

TIET has developed a fifteen year Strategic Plan which includes an academic plan to transform from a traditional engineering education to a multi-disciplinary centre of excellence in higher education.

The academic plan showing the courses proposed and a research plan focusing on current thrust / niche area(s) of expertise and proposed plan in pursuit of excellence in those areas is as under:

TIET Growth Plans and Proposed Courses

The students at TIET are unique individuals with different interests and aspirations. The diverse programs and activities aimed at developing quality of mind, ethical standard, social awareness and global perspectives allows the students shape their own TIET experience and grow.

At present – TIET has 7 departments and 5 schools in Engineering and Science. It has an off campus center LMTSOM which offers courses in Management.

Going forward, TIET plans to establish new departments in Law, Pharmacy and Architecture. Apart from that, they plan to offer various interdisciplinary courses in Management, Liberal Arts, Law, Science and Engineering.

Below are the details of student growth across all departments in undergraduate, postgraduate and doctorate programs:

| | Years | | |
|------------------------------|--------|--------|--|
| | 5 | 10 | |
| Totals UG Students on campus | 9,100 | 11,250 | |
| Totals PG Students on campus | 2,370 | 2,950 | |
| Total PHD Students on campus | 1,000 | 1,900 | |
| Grand Total Students | 12,470 | 16,100 | |

Engineering and Science

The Engineering programs offered can usually be bifurcated into three main categories namely Biotechnology, Core Technology and Information Technology. Undergraduate engineering students are taught a series of courses in basic sciences to develop understanding of scientific principles and methods, analytical ability and rigour. These courses are followed by courses in engineering sciences to provide a smooth transition from basic sciences to professional engineering courses.

The undergraduate curriculum consists of two main components i.e. core courses and professional courses. The core courses lay emphasis on concepts and principles. It involves teaching of subjects in Basic Sciences, Humanities and Social Sciences and Engineering Science. Attention is also paid to develop communication skills in English language - the medium of instructions.

The Professional courses lay emphasis on system analysis, design, manufacturing and professional practice. There is an in-built flexibility to encourage students to specialize in streams of their choice through a system of professional and free electives. The Institute strives to foster among its students a strong desire and capacity for continuous learning as well as self-appraisal to develop sterling human & professional qualities and a strong sense of service to society through designed, curricular, co-curricular activities and congenial campus environment.

But in the recent times, the boundaries between various departments has blurred. In the light of this, TIET will focus on evolving multidisciplinary courses where the curriculum will be flexible and students will be offered to pick courses from different basket of courses and students can opt for studying a mix of multiple baskets and in-turn can earn a multidisciplinary degree.

At present – TIET has 7 departments in Engineering in Computer Science, Mechanical, Electronics, Electrical, Biotechnology, Chemical and Civil disciplines.

Various interdisciplinary programs are offered in Mechatronics Engineering, Electronics & Computers, Instrumentation & Control, Software Engineering & Management, Metallurgical and Materials Engineering.

TIET offers to introduce Bachelor of Engineering courses in areas like Biomedical, Computational Biology, Polymer Sciences, Information Security, Automotive Engineering, Aerospace, Environmental Engineering, Financial Engineering and Engineering Physics etc.

TIET is offering various M.E./M.Tech. Programs where it has uniformly maintained the basic structure and philosophy of the post-graduate education in engineering in the country. All these programs, regular or parttime, have their course work classified into two major categories: Core Courses and Elective Courses. To be eligible for a degree, a student must complete requisite number of core and elective courses. However, to bring in flexibility a wide choice of electives is offered to the students in order to make their training broad based. Presentation of a Seminar and a project in addition to the course work and further carrying out a thesis/dissertation are necessary components of post-graduate degree.

Apart from existing programs, TIET also plans to introduce Master of Engineering courses in areas like Machine Design, Structures & Infrastructure, Biomedical Instrumentation, Bio Mechanics, Automotive, Biological Data Analytics etc.

TIET also offers M.Sc. programs aims to impart application oriented education in the respective area with an integrated approach so as to turn out professionals who will have easy absorbability in industry as well as self-employment skills. The course curriculum has been structured to impart education in the areas desired by the industry as well as local needs.

The Science programs are offered in Biochemistry, Biotechnology, Chemistry, Mathematics & Computing and Physics. To meet the changing industry demands, TIET plans to introduce integrated courses and new master courses in specialized areas in Physics and Biochemistry.

Commerce and Management

At present, LM Thapar School of Management (LMTSOM) offers a 2 Year MBA program. The goal of the program is to develop globally sensitive scholarly practitioners with social entrepreneurial mind set.

It aims to groom a generation of thinkers, practitioners and leaders who are adept at solving both local and global problems with utmost global sensitivity. The program strives to achieve that all graduates have a strong entrepreneurial orientation with an emphasis on doing social good. Irrespective of what kind of enterprises they create or work for, a strong orientation toward societal good must be the starting point of any decision they make.

Both business schools and businesses have a very important role in dreaming and architecting a new world order and we must make a determined beginning here in India. TIET wants to develop LMTSOM as a centre of advanced learning which is uniquely positioned to bringing students, teachers, scholars, entrepreneurs, business leaders, community leaders, and social activists together to create the new India of our dreams.

In future, LMTSOM plans to introduce new programs in Big Data Analytics and Liberal Arts.

- The MBA program in Big Data Analytics will prepare our MBA graduates to be ready for the transition from Industry 3.0 to Industry 4.0.
- Liberal arts is more and more recognized as the most useful foundation training for managers and business leaders. In addition to MBA level courses, students will be well trained in the following subjects with the possibility of specialization: Biology, Computer Science, Ecology, Economics, Evolutionary & Cognitive Psychology, English Writing, Fine Arts & Design, History, Mathematics, Philosophy, Physical Sciences, Sociology, Sustainable Development

Social Science and Humanities

School of Humanities and Social Sciences aims at integrating the humanistic aspect like Values, Communication and Managerial skills with technical education.

It also undertakes Masters and Doctorate programs in Behavioural Sciences, Organisation Behaviour, Economics, Commerce, Finance and Management related subjects.

Economics is a field of growing importance as preparation for both a variety of careers and programs of advanced study. The discipline occupies a strategic place among the social sciences, and is important to the study of the humanities as well. An understanding of economics is relevant to advanced study in such fields as history, political science, sociology, geography, and anthropology. Since economic institutions are an important element of any larger social or political system, and since major social and political changes are often influenced by economic forces, an understanding of economics is important for mastery of these related disciplines

In future, TIET plans to introduce Integrated Courses Economics covering specializations in areas like Business Economics, Econometrics etc.

Architecture and Design

With growing public awareness that urban habitats need to be neat, well-laid out living spaces, the demand for professionally trained architects is growing exponentially. Architecture is growing as one of the important professional courses in India.

TIET plans to set up Architecture Department with state of art infrastructure. Dedicated computer labs equipped with AUTODESK software, modelling workshops, and studio and exhibition halls will form the core learning areas for students. Apart from it, the department will also have a Materials museum and Visual arts room.

TIET plans to offer Bachelor Program in Architecture that will focus on producing Architects who can assume responsibility for planning and designing functionally sound, aesthetically appealing structures in harmony with their environment and within the boundaries of approved project budgets. The study program will include a period of work experience either in the form of practical training for one semester or experience at a project site.

While the courses will be a mix of theory and studio work, the program will provide ample opportunities to student to learn and experience architecture in real world scenarios.

All students will be required to undertake at least o one site or field visits each semester for courses like Architectural Design Studio, Building Materials and construction starting from the first semester of the program. Also, students will be required to undertake an educational tour approved by the department to various places of architectural interest across India once in every 2 years of program.

The department will also offer masters programs for graduate architects to specialize in areas such as Urban and Regional Planning, Building Design, Landscape Architecture & Design, and Elevation Design

<u>Pharmacy</u>

India has a growing pharmaceutical industry of its own. It is likely to become a competitor of global pharmacy in some key areas, and a potential partner in others. India has considerable manufacturing expertise; Indian companies are among the world leaders in the production of generics and vaccines. As both of these areas become more important, Indian producers are likely to take a large role on the world stage – and potentially partner with global pharmacy companies to market their wares outside of India.

Thus, Pharmacology has become a rapidly growing highly organised profession in which the role of the pharmacist has gained considerable importance with rapid advances and breakthroughs in the Indian pharmaceutical industry.

TIET plans to set up Pharmacy Department with state of art infrastructure including over 10 labs on Pharmaceutics, Pharmacognosy, Pharmacology, Pharmaceuticals, Microbiology, and Computer Adaptations etc. TIET will initiate all approvals required from PCI in Year 4 which is an year before launching the courses.

The Bachelor Program in Pharmacy will be prepared considering the needs of industry, which gives more impetus for skill development. Thus, graduates can don the roles like Industrial pharmacist (Manufacturing,

Packaging, Quality Control and Quality Assurance), Hospital and Community Pharmacist (Dispensing of Medicines and Counselling of patients), Sales and Distribution executive (Detailing to doctors and bulk distribution of medicines), Academic Pharmacist (training diploma in pharmacy students).

TIET will also offer a Master Program in Pharmacy, which will produce post graduates specializing in several areas like Pharmaceutical Chemistry, Drug Regulatory Affairs, Pharmacology, Pharmaceutics, Industrial Pharmacy, Pharmacognosy, Pharmaceutical Marketing, Pharmaceutical Quality Assurance and Pharmaceutical Biotechnology etc.

<u>Law</u>

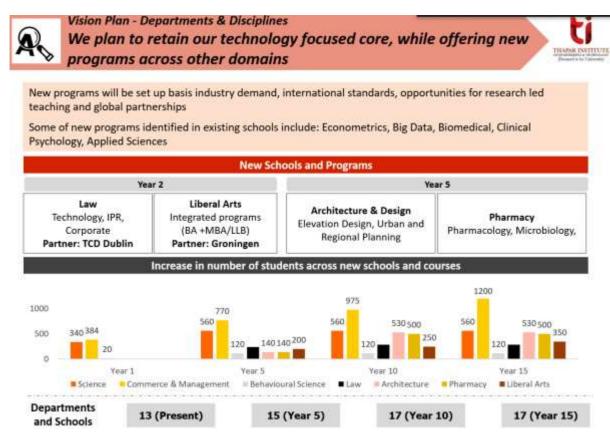
The legal sector in India has been enthusiastically growing ever since 1991 when India opened its economic doors to the world. India attracted lot of inbound investment. Recent years have seen a growth in outbound investments as well. Lot of cross border transactions are taking place today and lawyers are often needed to advice on various transactions. This created an opportunity for many to establish law firms to provide various specialized legal services to companies that are seeking professionally managed legal services.

TIET plans to set up Law Department that will offer 5 Year Integrated program in Business Studies and Law (BBA-LLB). Law is a fundamental part of business and business has always been intertwined with the law and legal regulations, but these are becoming more complex. Business students who study the interaction of law and business can anticipate the legal needs of their companies and comprehend how laws and regulations can impact businesses in both positive and negative ways.

TIET will also offer a Master Program in Law, which will produce post graduates specializing in several areas like Corporate and Financial Law and Policy, International Trade and Investment Law, Intellectual Property Rights and Technology Law etc.

2.0 New Programs in Social Sciences and Liberal Arts may be started

TIET has ambitious plans to start new programs in social sciences, liberal arts and law. The details have already been provided in response #1 as above. The new programs and their implementation plan is depicted in the figure below.



3.0 Implementation of Choice Based Credit System

This is with reference to the meeting held in the office of DoAA to discuss the inclusion of Generic Electives the Schemes of 2016 and 2017 as part of implementation of CBCS. The meeting was chaired by Dr.S.S.Bhatia, Dean, Academic Affairs. The following heads /their representatives attended the meeting:

- 1. Civil Engineering Department
- 2. Electrical & Instrumentation Department
- 3. Biotechnology Department
- 4. Chemical Engineering Department
- 5. Mechanical Engineering Department
- 6. Electronics & Communication Engineering Department
- 7. Computer Science & Engineering Department
- 1.For 2016 schemes of MEE, MPE, MTX, ELE and EIC, a basket of Generic Electives (of 3.0
credits), excluding the course 'Innovation and Entrepreneurship (UTA012)' will be offered
in 7th Semester.
- In case of the 2016 schemes of MEE, MTX, ELE and EIC, the Professional Electives I and II of 7th Semester will be merged into one professional elective basket, to facilitate the inclusion of Generic Electives.
- In case of 2016 Schemes of BT, MPE and CIE, a basket of Generic Electives (of 3.0 credits), excluding the course 'Innovation and Entrepreneurship (UTA012)', will be offered in 8th Semester.
- In case of 2017 Schemes of MEE, MPE, MTX, ELE and EIC, the basket of Generic Electives, including the course 'Innovation and Entrepreneurship (UTA012)', will be offered in 5th Semester. The credits of UTA012 will be reduced to 3.0.
- In case of 2017 Schemes of BT and CIE, a basket of Generic Electives (of 3.0 credits), inclusive of the course 'Innovation and Entrepreneurship (UTA012)', will be offered in 8th Semester. The credits of UTA012 will be reduced to 3.0.
- In the case of 2016 and 2017 Schemes of ECE, ENC, Chem, CoE, the slot of the course
 UTA012 in 6th Semester will be replaced by basket of Generic Electives (inclusive of UTA012). The credits of UTA012 will be reduced to 3.0.
- The semester-wise and total credits will be re-calculated by the individual departments, taking into account the inclusion/change in the Generic Electives being offered in schemes of 2016 and 2017, in each of the programs.

The Basket of Generic Electives, other than UTA012, to be offered is as under:

| S.No | Course No. | Course Name | | Т | Ρ | Cr. |
|------|------------|--|---|---|---|-----|
| 1 | UHU007 | Employability development Skills | | 2 | 0 | 3.0 |
| 2 | UHU006 | Introductory Course in French | 2 | 2 | 0 | 3.0 |
| 3 | UHU009 | Introduction to Cognitive Science | 3 | 0 | 0 | 3.0 |
| 4 | UHU008 | Introduction to Corporate Finance | 3 | 0 | 0 | 3.0 |
| 5 | UCS001 | Introduction to Cyber Security | 3 | 0 | 0 | 3.0 |
| 6 | UPH063 | Nanoscience and Nanomaterials | 3 | 0 | 0 | 3.0 |
| 7 | UEN004 | Technologies for Sustainable Development | 3 | 0 | 0 | 3.0 |
| 8 | UMA066 | Graph Theory and Applications | 3 | 0 | 0 | 3.0 |
| 9 | UMA061 | Advanced Numerical Methods | 3 | 0 | 0 | 3.0 |
| 10 | UBTxxx | Biology for Engineers | 3 | 0 | 0 | 3.0 |

The departments will send the revised schemes of 2016 and 2017 to Assistant Registrar (Academics), after incorporating the necessary changes (as mentioned above), latest by August 23, 2018 for ratification in the forthcoming Senate, which is expected to be held in the first week of September, 2018.

Course work for PhD students should be re-designed taking into account the needs of the individual disciple

Every admitted candidate shall have to do course work for a minimum of one semester. The course work shall include at least three courses, namely, a course on research methodology (may include quantitative methods and computer Applications) and course(s) proposed by the Admission Committee (for those who have studied a similar course on Research Methodology at PG level), a professional course (Syllabus to be proposed by the allocated supervisor in line with the proposed area of work and approved by Chairman, Admission Committee) and a Seminar (Relevant in the area of research). Minimum credits for the course work shall be 11 including a Seminar of 4 credits. The process of registration in the course work, examination, evaluation and grading shall be same as followed for UG/PG programmes. Only those candidates who successfully complete the course work within one year of admission and with a minimum CGPA of 6.00 on 10.00 point scale shall be registered in the PhD programme.

Every candidate will be required to submit research proposal within 6 months, duly recommended by the Supervisor(s), after successful completion of the course work. Research proposal will be submitted to the concerned Head of the Department/School. In case of non-submission of proposal within the prescribed period, DoRSP on the recommendations of the Supervisor and Head of the Department/School may grant an extension for a maximum period of six months. If the candidate fails to submit the proposal even during the extended period her/his admission will be cancelled. In case the proposal is rejected by the URB, he may resubmit it within next six months starting the date of meeting of URB failing which her/his admission will be cancelled.

Augmentation of IT facilities for teaching and research

Centre of Information and Technology Management (CITM) has been established in the University after integrating three units, namely, Computer Centre, Centre for Information Super-Highway and University Science Instrumentation Centre. This centre has been established to cater the needs of users involving implementation, maintenance and support activities related to LAN/WLAN, software and hardware; procurement, support and maintenance of various equipment of users.

CITM offers Internet access and network services to Thapar University. CITM has two static leased line connections: 1085 Mbps leased line from Reliance and 1000 Mbps from National Knowledge Network (NKN). The Campus-wide Local Area Network (LAN), which currently has 7400 live nodes (wired and wireless), is backboned by Optical Fiber connected with layer-3 and layer-2 switches, structured with CAT6 cabling.

The CITM has state-of-the-art computational labs and one DATA CENTRE. The computational facility in the Centre includes 14 Dell Power Edge servers and 97 nodes and other peripherals. CITM is a member of MATHWORKS Campus Agreement and Microsoft Campus Agreement. CITM organizes online courses under Quality Enhancement in Engineering Education an initiative by MHRD. Thapar University has been consistently highly ranked by QEEE organizer IIT Madras.

CITM also provides repair and maintenance of Electronic Instruments/Equipment and, PCs and peripherals used in various Laboratories. This centre is contributing in the implementation of ERP software that includes modules financial management, inventory management, human resource management, purchase management, academic activities etc. and its related support to the users of Thapar University. CITM is also responsible for maintenance and administration of Thapar University Website. The main objective of centre is to provide better support and services to the users for their individual as well as collective growth.

2. To develop case study based curricula to facilitate technology enhanced solutions

Aspiring to become a globally acclaimed university, Thapar Institute has undertaken a major program to Contemporize with the best in the world. The Contemporisation Program is envisaged to deliver a research inspired, outcome based educational experience to the students. Some of the significant changes made in the curriculum are introduction of three large engineering design projects during the first two years followed by a capstone and an individual project during the later years. We have collaborated with Trinity College Dublin and it covers all the major academic and research activities of the Institute and this has helped address and bolster Thapar Institute's position as a leading centre for higher education in India and in the region.

As a first step, we invited Trinity in November 2014 to conduct an academic review of our programs and governance procedures. The findings of the review set out a path to achieve a closing of the performance gap. An overall plan for change was then prepared for implementing the findings of the academic review. Accordingly, the harmonization of engineering program curriculum with Trinity was taken up to bring it up to date with global standards. We thereafter adopted the learning outcomes approach for teaching with greater reliance on self-directed learning, projects and research-led teaching. The students admitted at Thapar Institute have been beneficiaries of the major curriculum revamp that has been put in place. The introduction of the engineering design courses and associated projects makes this a unique engineering program in the country.

Thapar Institute is one of the few institutions in India that have started to practice outcome-based education. The students are trained to design their own experiments and they take up many cross-functional, multidisciplinary design projects. We measure the attainment of course learning outcomes and corrective actions are initiated as and when required. Also, all academic staff is encouraged to bring in cutting-edge research ideas from their own research into their teaching.

As part of the contemporisation program, we have also set up a Centre for Academic Practice and Student Learning under the mentorship of Trinity to support and help the faculty hone their skills and teaching pedagogy. This centre supports a whole-institutional approach to teaching and learning and facilitate a broad adoption of this new learning paradigm. The training and on-going professional development will be instrumental in establishing the culture necessary for this initiative to grow and contribute meaningfully to the contemporisation programme.

We have undertaken major examination reforms under contemporization. In the new procedure, the question papers are now being reviewed by Trinity. The examination results are discussed by an Examination Board which are convened to review sample answer scripts, projects and the marks obtained by the students.

Efforts to be made to enhance mathematical and statistical skills of the Institute

The institute has taken measures to comply with the recommendations of the NAAC team to enhance mathematical and statistical skills of the students. Institute has included following courses to enhance the curriculum of the departments:

- 1. Probability and statistics,
- 2. Mathematical modelling and simulation,
- 3. Matrix computation,
- 4. Financial mathematics,
- 5. Computational number theory,
- 6. Probability and Random Variable,
- 7. Graph Theory and Applications,
- 8. Statistical Thermodynamics.

Under choice based credit system two courses focusing on mathematical skills are introduces for interested students. These courses, Advanced numerical methods and Graph theory and applications, have wide applications in the theoretic and application field. A number of already existing courses are updated to strengthen the mathematical and statistical skills of the students. The weaker students in mathematics are encouraged to meet individual faculty members. They can do so with the help of heads of the departments or their respective mentors. Their enhancement of these skills will be a reflection on the overall skills of the institute.

Two introductory mathematics courses for Biotechnology undergraduate students are included in the scheme. These courses are specifically designed for students joining the institute through NEET qualifying examination. These bridge courses helps students to engage in further research activities during and after their undergraduate studies.

All academic units of the institute are encouraged to update their syllabuses on regular basis to reflect the state of the art knowledge and keep students at par with the outside world.

3. Alumni to be engaged in different welfare measures for the overall development

<u>Plan for involving the alumni in the management of the Institution and leveraging alumni financial</u> <u>resources.</u>

Founded in 1956, Thapar University formerly also known as Thapar Institute of Engineering and Technology is an alma mater to over 26000 students. Spread across various countries and diverse professions TU alumni network brings together graduates of a variety of programs from the institute's inception. The collective strength of the alumni network is the backbone of the institute.

| <10 years | 10-25 years >25 years | | Total | |
|-----------|-----------------------|-------|--------|--|
| 15000+ | 5500+ | 5500+ | 26000+ | |

Students are our promoters; they are the authentic voice that us capable of influencing decisions of prospective students. Therefore, every individual that passes out from our institution is our potential brand ambassador and has unique stories to tell on how the institution changed their lives for the better. The true meaning of alumni engagement is to have a lifelong relationship and association with the university – as a promoter for university services, as a potential problem solver for the alumni at the decision making levels in industry, and as the recipient of the alumni philanthropic actions.

The TU alumni association bridges the gap between illustrious alumni and their alma mater which in turn gives current students and their alumni a chance to develop positive synergies and grow together. The institute alumni function has two pillars, namely, present students – who are the future leaders and the alumni-who bring accolades by virtue of their success and standing in the society.

There exist multiple touchpoints currently for the TU alumni to engage with the institute. The alumni relations office at the institute not only acts as a local contact point for alumni but also liaisons between the alumni association, alumni and the institute. Additionally, the alumni association office acts as a repository for all alumni related data. It maintains a dynamic database and connects with alumni across the globe through multiple mediums on a regular basis.

Current Initiatives undertaken to maintain and enhance the existing relationship with alumni include:

- Active alumni chapters: Thriving national chapters (NCR, Gujarat, Patiala, Jalandhar, Amritsar) and international chapters (Dubai, Amritsar) conducting regular social events, undertaking community projects and small scale as well as large scale networking events for all age groups.
- Student alumni interaction cell (SAIC): An open platform that enables current students to engage and interact with alumni for mentorship and guidance across various facets of the institution. SAIC facilitates workshops on leadership, entrepreneurship and also organises panel discussions by bringing back distinguished alumni to interact with current students
- Scholarships: Raise funds for merit cum means scholarships targeted at enriching student experiences of deserving candidates

- Homecoming: Homecoming events jubilee batches where alumni visit campus with their families to relive golden days of their lives and catch up with friends and old acquaintances.
- Alumni in the Making: A formalised ceremony held for welcoming fresh graduates into the alumni community as they transition out of their student avatar and set foot in the real world to make a mark.
- Alumni awards: Every convocation, the institute honours distinguished alumni and they are invited to address and share their personal experiences with the graduating class.
- Network: A dedicated website and a widespread social network across social media platforms (Facebook, LinkedIn, Twitter, Snapchat, whatsapp groups and so on).

In addition to the key initiatives the alumni office offers complete support to the institution's strategic goals and undertakes multiple programs for reaching and engaging with alumni through a wide spectrum of communication mediums.



The virtuous cycle – mutually beneficial relationship for alums and the institution

The development of good relations between an academic institution and its alumni is a long term investment which entails benefits for the institution beyond any financial contribution – the alumni group comprises the most important stakeholder group for the institution's future.

Involving alumni in the management

The alumni relations office is an integral part of the institution's management structure. It is the connecting part with the institution's history and also a means of progress and change. With a 60+ year legacy TU alumni has made a mark in the corporate and academic world.

• Inducting 2-3 eminent, highly influential alumni members to the Board of Governors will enable TU to ensure all activities initiated and carried out by the institute are in the best interest and do not in any form dilute the institution's legacy and prestigious brand. Alumni will act as outreach arms in the field of academics and industry.

- Leveraging core strengths of individuals who are leaders in the academic field by nominating alumni representatives to be on the Board of Studies and Academic Affairs and take suitable inputs across all academic matters and processes carried out in the institution. This will enable TU to learn and implement best practices from around the world and evolve keeping pace with the changing student requirements.
- Key alumni who have made a mark on the corporate or industry front will be engaged by the institution across activities such as, nomination to the Board of Studies, career advice and mentoring, incubation of entrepreneurial ventures and start-up.

Therefore getting into positions of responsibilities suited to individuals academic and life experiences will enable and empower them to work towards strengthening the TU brand and build an even stronger legacy in the future.

Leveraging alumni financial resources

The realization of the institution's vision will require new and entrepreneurial ways to generate income and secure funding in addition to current ongoing initiatives. Philanthropic donations will play a greater role in making TU a sustainable institution. To accomplish the goal of increased philanthropic donations:

- TU aims to engage the academic community at large to take on a leadership role in engaging with potential donors and promoting opportunities for support.
- Incorporate a dedicated fundraising team to reach out and connect with the highly influential alumni who have an established financial standing in the community.
- In the long term TU will look towards adopt innovative techniques such as using prospect research to tailor alumni outreach, hosting alumni-only fundraising events and creating and promoting an alumni matching gift program (a matching gift is a donation that an alumnus makes to his/her university and is then doubled by the university's matching gift program)
- Develop and host a peer funding platform for alumni ideas and raised targeted funding for causes that appeal to the donor personally.

Our approach

The institution follows a three tiered approach: This approach aims to accommodate the diverse and changing stages of the professional journeys of alumni. Over time this approach will enable broader and deeper relationships with alumni, underscored by a genuine and mutual bond between individuals and the institution.

Highly influential alumni

Current and emerging leaders, including government scholarship recipients and researchers. Mode of communication

- Faculty members to maintain one on one relationships
- Regular email updates
- Develop personalized communications

Established alumni

Professional alumni gaining in influence and building expertise and networks. Mode of communication

Engage through social media channels

- Regular email updates
- Develop personalized communications

New alumni

New alumni seeking to explore and develop their career networks and expertise.

Mode of communication

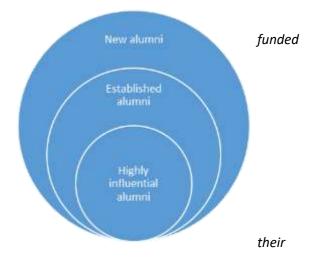
- Engage through social media channels
- Regular email updates
- Text message notifications for events

In 2018-2023, TU alumni cell will focus on three core strategies that it believes will be crucial to impacting the alumni communities across the three above mentioned tiers. Additionally, TU aims to strengthen the central alumni function and drive expansion of alumni staff into the key departments.

Way forward



1. Building Lifelong connections



Goal: Create lifelong pride and commitment to the TU family. Promote alumni engagement with prospective and accepted students and enrich the culture and spirit at TU by delivering alumni value to students, staff, faculty and community

Key Objectives:

- Sensitize faculty and students on the value of engaging with alumni
- Increase and tailor make communication with alumni basis the three tiered approach
- Targeted messaging for the three outlined segments to constantly encourage the idea of engaging with and giving back to the university.
- Increase number of Alumni Chapters and promote interaction between alumni Chapters and the institution
- Generate resources for the Infrastructure development of the Alma Mater.

2. Ongoing Career Advancement

Goal: Support career aspirations of students and strengthen the alumni network globally for personal and professional advancement

Key Objectives

- Work with departments and individual on campus, map requirements to engage in career mentoring, internship opportunities and job placements
- Design and implement a platform to support a scalable mentoring program
- Advocate for alumni to be active in supporting the career aspirations of student and young alumni
- Provide multiple networking opportunities through special events on and off campus

3. Offering Enriching Experiences

Goal: Leverage the institute's 60 year legacy to support and fulfil ambitions of current and future students Key Objectives

- Grow scholarship endowment for deserving and needy students
- Raise grants for chair Professorships at the institution in core identified areas
- Recognize distinguished personal
- Increase the institution's fundraising capacity

4. NSS activities to be strengthened and NCC to be revived

The institute has strengthened the NSS activities. Participation of students and faculty members have gone up in the last years. We have a total of 15 NSS units with approximately 550 new students enrolled since July 2016. These students along with faculty members participate and organise many events during the year. The participants in these events are not only NSS members but also other interested students and

| Feb'20-24, 2017 |
|--|
| Drug awareness |
| Blood Donation Camp |
| Medical Checkup Camp |
| Swachh Bharat |
| Tree Plantation camp |
| Eye checkup camp |
| Awarness camp |
| Sharamadaan |
| Nov' 9-15, 2017 |
| Food Waste Management Awareness Programme. Fortunately, food wastage is bare minimum in the campus, thanks to the good practice of the students, faculty members and the hostel mess staff. This awareness drive partly aim to reduce the food waste quotient in campus to zero and chiefly to encourage the students and others to work as an ambassador of Food Waste. |
| Jan' 29 to Feb' 4, 2018 |
| Dental camp |
| Blood donation camp |
| Tree plantation |
| Donation drive (food+clothes+books) |
| Animal rights skit |
| Wall Paintings for general awareness |
| Guest lecture on social cause |
| Feb'20-25, 2018 |
| Swachh Bharat Abhiyan |
| Road safety Awareness |
| Guest Lecture on Disaster Management |
| Free Health Check Up Camp |
| Tree Plantation camp |
| Blood donation camp |
| Awarness Programmes |

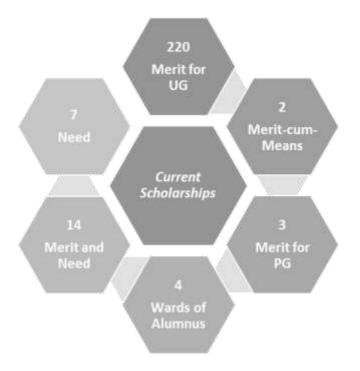
faculty members. Around the year institute holds drives to enrol more students in NSS. The institute has organised following actives since the visit of last NAAC team:

5. Co-locating MBA program with engineering program may be explored for synergistic integrated BE-MBA Involve teachers of other universities in paper setting and evaluation.

The management of TIET has taken a decision to move the MBA program from its off campus to the main campus in Patiala as a response to the recommendation made by NAAC. The MBA program will formally move to Patiala from July 2020. Such time is needed to build the new academic block for the MBA School and also build a new Venture lab.

6. More financial support to be provided to students belonging to marginalized sections

Scholarships help keep education affordable and accessible, making sure that every student can earn their degree with as little debt as possible.



TIET: Scholarships that they currently offer

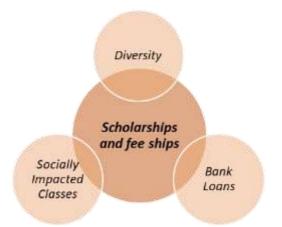
- TIET currently offers three 'Merit Scholarships' to approximately 220 undergraduate students, these scholarships are given on the criteria that the student scores above a certain percentage in their JEE (Main) scores (above 85% depending on the scholarship); the criteria for continuation of the scholarship is that the student continues to perform according to the standards prescribed.
- The Institute also offers two 'Merit-Cum-Means-Scholarships' to families whose income falls below 5 lakh p.a. where preference is given to girl students who come from families with no male child.
- Three merit scholarships one of each value, full, half and quarter tuition fee, will be awarded to the students in MCA and MSc program on the basis of merit.

- TIET also offers four scholarships of INR 50,000/- per annum to wards of alumnus in each year of BE/BTech on merit-cum-means basis. This scholarship is offered by the institute Alumni Association.
- Apart from these scholarships, TIET provides 14 more scholarships to mostly singular students on the basis of merit and need. Although these scholarships average to around INR 10,000, they add prestige to the student's resume.
- TIET's alumnus also offers 7 scholarships to students on the basis of merit and need.

During the next 5 years, TIET would focus on merit based scholarships and targeted scholarships to attract people from under represented areas within India. TIET is determined that no deserving candidate has to refrain from pursuing an education due to lack of funds and will thus increase the number of merit cum means scholarships to make sure of this.

| | Years | | | | |
|-------------------|-------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 |
| % of Scholarships | 12.0% | 12.0% | 12.0% | 12.0% | 12.0% |

Award of Scholarships and fee ships



- TIET will provide students' scholarships on the basis of diversity as it will enrich the learning experience both inside and outside the class. To encourage students with diverse profiles, TIET will give full scholarships, half scholarships, and tuition scholarships to up to 12% students. Candidates will have to write an essay for applying to the 'Merit by Diversity' scholarship.
- The Institute aims to work passionately along the student to help get them the resources they require to pursue an education. Thus, TIET will tie up with several banks across India to help

students get education loans that will cover up to 95% of the program expenses. The Institute will aim to negotiate the best deal with these banks, including low interest rates and no collateral security.

 The Institute is eager to create a positive social impact and will thus provide scholarships to the following: Economically backward classes, differently abled persons, students from backward/Left wing extremism regions of India, first graduates in a family, girls, with preference given to girl students who come from families with no male child, members of the armed forces and their families who would like to pursue an education from TIET.

• <u>Funding for scholarships</u>

| Funding for scholarships | | | | |
|--------------------------|--------------------------------------|--|--|--|
| Existing fee funds | Alumni fund | Named scholarships from alumni fund | | |
| CSR fund | NGOs and charitable organisations | Multilateral programs | | |

- <u>TIET Own funds</u> TIET will use the existing fee funds to provide more merit, need and merit cum need based scholarships to its students, to ensure that everyone willing and capable has the opportunity to get educated.
- <u>Alumni Batch Funds for batch scholarships</u> TIET will encourage every graduating class to contribute to an alumni fund in their batch name. Establishing this would give the alumni class a sense of 'giving back' to their University and would also encourage other graduating classes to follow suit.
- <u>Alumni funding for named scholarships</u> TIET will also reach out to its alumni to encourage them to create named scholarships. TIET will give the alumnus the opportunity to name the fund and designate the college, department, program, as well as criteria including marks, financial need, class level etc. This would incentivize alumni to donate and create scholarships.
- <u>CSR funding for targeted scholarships</u> TIET will pitch to companies and propose to them to invest a part of their CSR funds towards scholarships for students. Partnering with companies will also provide TIET a chance to collaborate with them for student recruitment in the future.
- *Funding from NGOs and charitable organizations* to provide scholarships to individuals who have suffered from acid attacks, people with disability, and mental health problems etc.
- \circ ~ Funding from Multilateral programs like Erasmus, UKIERI and New Colombo Plan