

# STRATEGIC PLAN: 2021 - 2026



**Islamic University of Technology (IUT)**

Organisation of Islamic Cooperation (OIC)

A subsidiary organ of OIC

Board Bazar, Gazipur 1704, Bangladesh

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## **Preamble**

In the 21<sup>st</sup> century, global development is emphasized by innovation through science and technology. Today is the stage of industrial revolution 4.0 or I4.0. Therefore, it is essential for the Islamic world to march forward at the right pace with the contemporary developed or fast-developing countries. Thus, it is indispensable to educate and train our students with abreast knowledge of science and technology. Islamic University of Technology (IUT) was established by the Organization of Islamic Cooperation (OIC) to attain this paramount goal.

Now, IUT looks forward to becoming a unique and prestigious multicultural hub of higher learning focusing on particularly in engineering, technology and relevant fields through the offering of state-of-the-art multi-and-inter-disciplinary programmes and cutting-edge research for sustainable development of the Islamic world. Our graduates are playing pertinent roles in solving engineering and technological problems of the OIC member states. However, the growing problems are more complex threatening to sustainability in the ever-constrained availability of economic resources eventually demanding innovative solutions to shape the world a sustainable living abode for our future generations. IUT must join and contribute to this impressive call. Therefore, for IUT, a strategic plan is to be prepared and implemented to make our graduates competitive for the contemporary world so that they can play accordingly for the socio-economic development of the OIC member countries and the whole world. With this background, this strategic plan has been prepared based on the shared values of our stakeholders. These values will provide a strong articulation to support the achievement of our aspirations for human capital and building strategies. The university (IUT) community is committed to increasing its strength to shape the education of our students and the future of higher education through the following seven strategic pillars:

1. Student-centered Learning
2. Research-oriented University
3. Knowledge Transfer Partnership Development and Networking with Industries
4. Internationalization
5. Accreditation of the Academic Programmes
6. Transforming from a Small-to a Medium-size University
7. Enhancing Financial Strength

It is believed that all stakeholders of the university will work together to achieve the aforesaid seven goals of this six-year strategic plan. Through these achievements, it will be possible to make an academic curriculum that educates students to develop the insights they need to navigate and lead in a rapidly changing complex world and that promotes and supports the production of high-quality scholarly and creative work against the real-life problems; recruit, retain and inspire academically talented students,

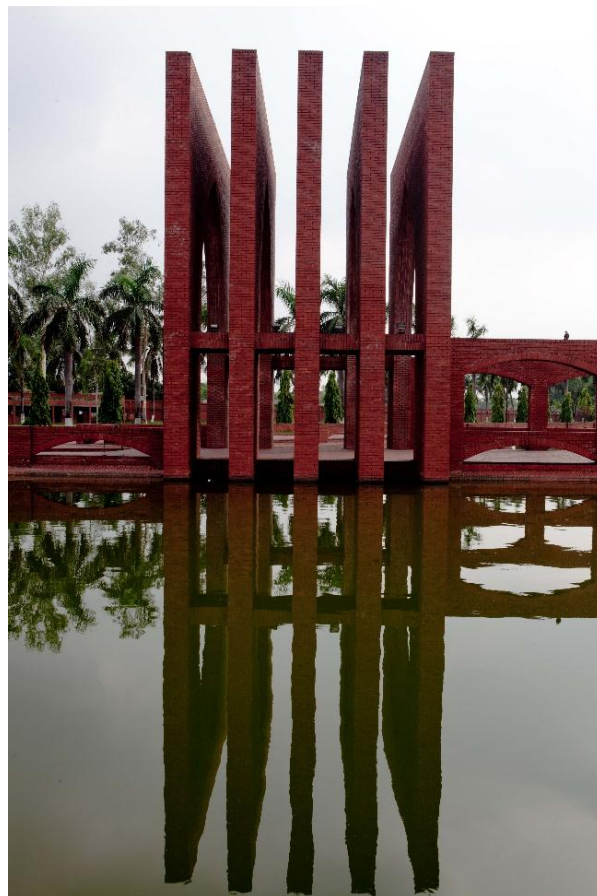
faculties, and staffs; prepare a dynamic, thriving and inclusive university community; prepare a congenial home for students to learn and alumnae to interact; develop graduates with innovative practices to sustain our environmental, human and financial resources. These achievements will also improve the rank, visibility, and financial position of the university.

## **Acknowledgment**

We Praise and Thanks is due to Allah SWT Who created us and given such abilities to work for IUT, Muslim Ummah and humanity. Peace be upon our Prophet Muhammad (SAW), his family members and his companions for he is the blessing for mankind and the best example to follow for the welfare of one own self and Mankind.

Mr. Migadde Habib, Chairman, Governing Board; Dr. M. Rafiqul Islam, Vice Chancellor and Dr. Omar Jah, Pro-Vice Chancellor, IUT took special interest to come up with a Strategic Plan for IUT to bring it to a new height as a widely-recognized institution of higher learning (IHL). The university would like to thank them for their valuable inputs and continuous support during the preparation of this strategic plan.

The University also thanks the members of the Strategic Planning Committee (Chairman – Prof. Dr. Md. Tarek Uddin, Members – Prof. Dr. Md. Anayet Ullah Patwari, Prof. Shamsuddin Ahmed, Prof. Dr. Khondokar Habibul Kabir, Prof. Dr. Moinul Hossain) for their untiring efforts to make this plan of Islamic University of Technology (IUT) for a six-year period from 2021 to 2026. Thanks are also due to all stakeholders including students, faculties, staffs, and alumnae for their valuable inputs in several discussion sessions of realizing this plan.



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# 1. IUT AT A GLANCE

## 1.1 Introduction

This chapter presents a brief history of IUT, its Vision and Mission, Core Values, Statutes, goals and objectives, organizational structure, and current status. Towards the end of this chapter, the scope of future improvements is highlighted.

## 1.2 Brief History of IUT

The Islamic University of Technology (IUT) started its journey as a university in 2001. It was initially established with the name *Islamic Centre for Technical Vocational Training and Research, (ICTVTR)* as a subsidiary organ of the Organization of Islamic Cooperation (OIC) in pursuance of its resolution, No. 5/9-E of the Ninth Islamic Conference of Foreign Ministers held in Dakar, Senegal in 1978. The foundation stone of the institution was laid in March 1981 at its present place, Board Bazar, Gazipur, Bangladesh, 30 km north of the capital city Dhaka. After completion of the construction work, its academic programs started from the session 1986-1987. As per its statute, IUT is committed to develop human resources, particularly in different branches of science, engineering, technology and technical education to support social and economic upliftment of the member states of the OIC by trying to achieve academic excellence through dissemination, creation and application of knowledge in an Islamic environment.

Over the past 31 years, IUT's role and scope have evolved and expanded, and today, it has established itself as one of the most desired technical universities not only among local students of the host country, Bangladesh but also among students of a number of the other OIC member states. As it has become an attractive institution, IUT continued its dedication to upholding its basic commitment: providing the best possible opportunities for learning to the students. IUT is now committed to teach its students how to learn and thus to become life-long learners. The well-drawn curriculum of IUT prepares the students to shape their behavior and take up their roles both as citizens and leaders of the rapidly changing global community. About 5,500 alumnae of IUT from 35 member states are working in many engineering and technological organizations across OIC countries for the socio-economic development of the Islamic world.

The faculty members of IUT are creating new knowledge through the researches via undergraduate and postgraduate students. The university also serves the professional bodies of the Islamic world through outreach, advisory

and extension services. As a provider of educational services to local, national and global communities, and as the steward of accumulated knowledge, IUT has been trying to address the problems and promises of today's world through its modest capacity built over the years.

### **1.3 Vision and Mission**

Vision:

*To be a leading university of science, engineering, and technology in the world*

Mission:

- *Providing education and training of international standard for the youths of the Ummah;*
- *Undertaking quality research leading to innovation;*
- *Launching cutting-edge disciplines matching the requirements of the member states;*
- *Internationalizing through increasing overseas students, staffs and external collaboration.*

### **1.4 Core Values and Strategies to Reach Vision and Mission**

The core values of IUT are:

- Ummah and universal Vision
- Integrity
- Quality education and quality management
- Creativity and Innovation
- Teamwork
- Staff development and attitude
- Interpersonal relationship and respect
- Academic freedom
- Stakeholders satisfaction and social responsibility

Each one of them can be seen under a few measures. For example,

#### ***Ummah and universal vision***

- Core Islamic and universal values are seen in learning processes and practices.

- Islamic principles based on the Qur'an and Traditions (Ahadeeth) are followed.
- Regard the people of all OIC member countries and make no difference among them.
- Also, regard people of all races and religions of all countries of the world.

### ***Integrity***

- Demonstrate high ethical and moral values.
- Acts with honesty and without consideration of personal gain.
- Stands by the decision that is in the interest of truth and justice without fear or favor.
- Does not abuse power or authority.
- Does not tolerate unprofessional or unethical conduct.
- Does not disparage (criticize or belittle) the university.

IUT looks forward to becoming a unique and prestigious multicultural hub of higher learning focusing particularly on science, engineering, technology, and relevant fields offering state-of-the-art multi-disciplinary programs and cutting-edge research for sustainable growth of the Islamic world through the following ways:

- Develop itself as a successful university which will be known worldwide for its quality, relevance, depth, and scope;
- Produce graduates in various fields of engineering, technology and technical education to support the industrial development of the Islamic world;
- Upgrade its laboratories, library, faculty and research facilities matching the demand of the day;
- Promote human and intellectual diversity of its graduates to overcome the barriers separating individuals, nations and cultures;
- Collaborate with the public and private enterprises of the host country and other OIC member-states for enhancing the knowledge of the students.

The strategies against the achievement of Vision and Mission are:

- Application of effective teaching and learning methods, especially Outcome Based Education (OBE), i. e, student-centered learning
- Gradual shifting of IUT toward research oriented university
- Linking IUT with industries by producing graduates as per the need of the industries and through collaborative research works
- Internationalization
- Accreditation of different programmes by local and international recognized bodies, such as the Board of Accreditation for Engineering and Technical Education (BAETE), Accreditation Board for Engineering and Technology (ABET)

- Raising fund for capacity development in research facilities and infrastructural development through professional services to the society

## **1.5 Statutes of IUT**

The Islamic University of Technology (IUT) is an educational and research institution. The main objective of the University is to help generally in human resources development in Member States of the OIC, particularly in different fields of engineering, science, technologies and technical and vocational education.

In fulfillment of its objectives, the University undertakes, among others, the following necessary and appropriate functions:

- Provide instruction in engineering, science, technology, and technical education and such branches of learning connected with the above fields as per the requirement of the Member States.
- Conduct, promote and guide research in engineering, in industrial and technological fields and technical and vocational education to the benefits of the Member States of the OIC.
- Hold examinations and grant and confer certificates, degrees, diplomas and other academic distinctions on persons who have pursued courses of study provided by the University and have passed the examinations of the University under such conditions as may be prescribed by the academic rules and regulations of the University.
- May confer other academic distinctions on persons of the high eminence of the Member States with the approval of the General Assembly on the recommendation of the Board.
- Promote technical cooperation, exchange technical know-how and disseminate basic information in the field of human resource development through short and special courses, seminars, workshops, publications, etc.
- Ensure coordination between the objectives of the University and other national and regional institutions of the Islamic Countries as well as with international institutions.
- Undertake advisory and consultancy services for Government, International Bodies and Foundations or allied organizations or other institutions.
- Participate in the meetings of the commissions and committees established by the Conference and in International Seminars, Workshops with the appropriate background.
- Cooperate and collaborate with the General Secretariat, and with other subsidiary and affiliated organs of the Conference. Any other relevant functions as may be decided from time to time.



**Fig. 1.1** Organizational Chart of IUT

## 1.6 Organizational Structure

The structure of the University comprises the Joint General Assembly, the Governing Board, Syndicate and the Vice-Chancellor. The internal setup and working conditions of the University are governed by its Internal Rules and Regulations (IRR) as approved by the CFM as well as by the provisions of the Personnel and Financial Regulations of the OIC. The Vice-Chancellor of the University is the chief executive in charge of the overall management of the University and takes measures necessary for realizing the objectives of the

University. The OIC Member States cooperate in every possible manner to assist the University in pursuing its objectives. The general budget of the University is financed by mandatory contributions of the Governments of the Member States in proportion to their contributions to the budget of the General Secretariat of the Organization of the Islamic Cooperation (OIC). The organizational chart of IUT is shown in **Fig. 1.1**.

## **1.7 Values and Culture**

### **As a subsidiary organ of OIC**

As a subsidiary organ of the 57-nation of Organization of Islamic Cooperation (OIC), IUT is guided by the noble Islamic values of unity and fraternity. It is determined to preserve and promote the Islamic values of peace, compassion, tolerance, equality, justice and human dignity. It is committed to working for revitalizing Islam's pioneering role in the world while ensuring sustainable development, progress and prosperity for the peoples of the member states.

### **As an academic Institution**

Considering its present size, student population and the number of graduates it produces each year, IUT can be termed as a small-size university. However, it pursues excellence in all its endeavors. Since IUT believes in dynamism, it encourages continual improvement in all its academic activities. IUT values learning as a way of life and promotes the habit of critical thinking and intellectual curiosity. It tries to offer students access to cutting-edge learning experiences, facilities and material support. IUT also believes that its academic efforts require intellectual freedom and a climate that encourages the free and open exchange of ideas.

The university endeavors to attain a distinctive feature specializing in a particular field in which it intends to be prominent. Specializing in any area in the field of high, frontier and emerging technologies will enable IUT to establish itself among the renowned seats of higher learning. The university shall explore its potentialities in any leading and cutting edge technology in which it may strengthen its research activities.

### **As a social institution**

IUT emphasizes that its faculty, staff and students act with honesty and integrity and that they adhere to the highest standards of personal and professional behavior. It is pledge-bound to use the financial, physical and human resources wisely and prudently in its relentless efforts to improve the teaching-learning culture of the university, the Islamic community and the world. It intends to promote cooperation among member states to achieve

sustained socio-economic development for effective integration into the global economy, in conformity with the principles of partnership and equality.

## **1.8 Goals of IUT**

IUT is continually developing the curriculum to achieve the following goals:

### **Goal-1 Produce quality professionals**

- Offer programs for the award of degrees and diplomas in the fields of engineering, technology and technical education and in such branches of learning connected with these fields as per the requirement of the member states and as approved by the Governing Board;
- Raise the overall standard of education offered by the university through the engagement of properly qualified and experienced faculty members, regular updating of course curricula, modernization of rules and regulations, upgrading of laboratories and other infrastructural facilities;
- Conduct, guide and promote research in engineering, industrial and technological fields and technical and vocational education for the benefit of the member states of the OIC;
- Collaborate with renowned universities of the developed world to exchange students and faculty members with them, conduct joint research on contemporary issues, undertake infrastructural development to meet the demand of the day and thereby upgrade the status of the university;
- Collaborate with the Universities of the Islamic world to ensure that the graduates and faculty of this university become familiar with the well-known universities of the member countries and work together for the development of the OIC;
- Introduce a variety of programs that will address regional interests and needs compatible with the Vision and Mission of the university;
- Ensure coordination between the objectives of the university with other national and regional institutions of the Islamic countries as well as with international institutions;
- Respond positively to requests for advisory and consultancy services from Government, international bodies and foundations or allied organizations of the host country as well as other member states of OIC;
- Maintain and improve continuously, the institutional infrastructure and processes necessary to ensure practical implementation of its programs and services.

## **Goal-2 Maintain Islamic environment**

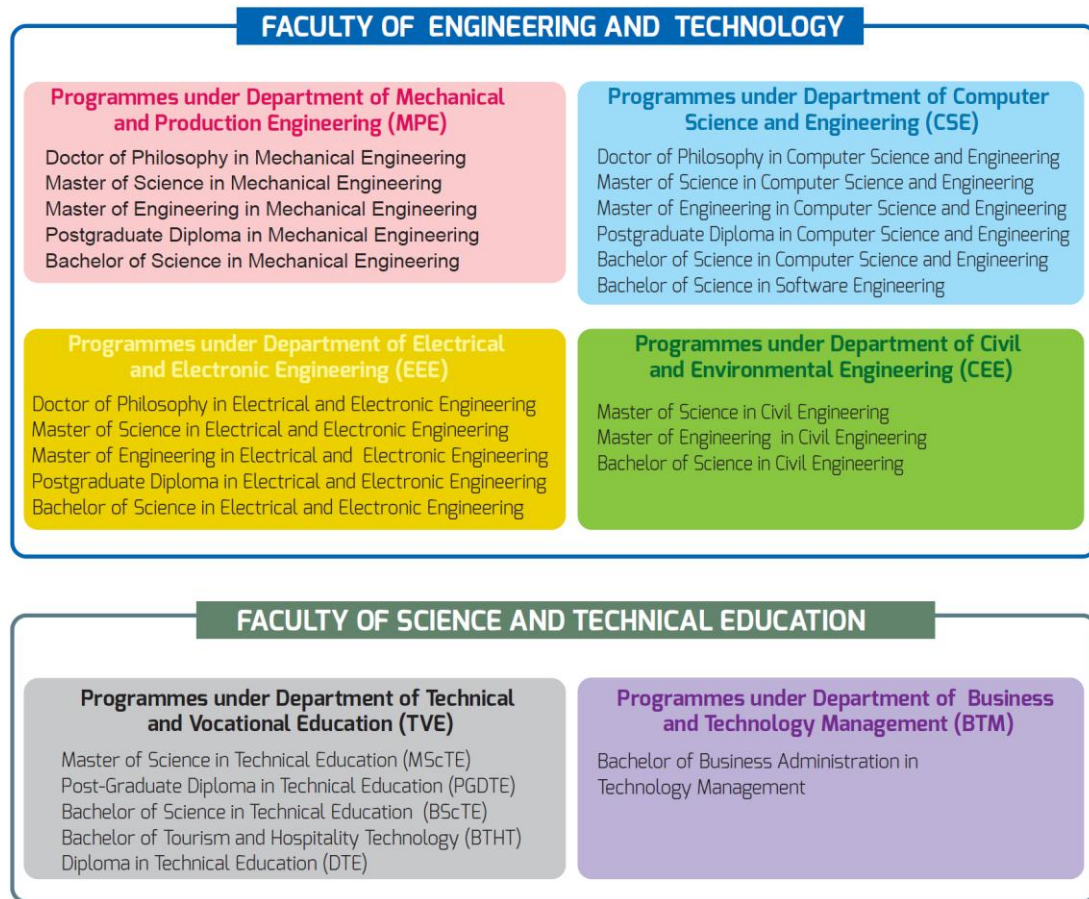
IUT is a university established by the Organization of Islamic Cooperation (OIC). Most of its students come from the OIC countries. IUT sincerely believes that alongside producing quality professionals, adequate care should be taken so that the students grow up with the noble Islamic values and culture. IUT has a beautiful mosque at the center of its campus implying the importance that the founders of the university placed on the spiritual development of its students and staff members.

IUT believes that its students should know about the history and contribution of the scholars and dignitaries of the Islamic world. With this objective, IUT offers several courses in the different programs to help the students to gain knowledge in the field. IUT looks forward to increasing facilities on the campus in this respect so that the students and staff can live in an Islamic environment. Though currently, there is no regular faculty to offer these courses, it is hoped that some regular faculties will be employed to offer the relevant courses in the near future through recently opened Arabic Language Center. Scholarly lectures can be arranged to develop the intellectual ability of the students, faculties and all relevant ones.

## **Goal-3 Promote the integration of the Islamic world into the global economy**

The policy of IUT is to educate and train the students in such a way that they will have the sound technical knowledge to face the problems of the real world. This will enable them to contribute to the industrial growth and technological development of their home countries and the Islamic world. By mastering the state-of-art technological knowledge, they will achieve the capability of integrating the economy of the Islamic world with the global economy.





**Fig. 1.2** Degrees Offered by Different Faculties

## 1.9 Present Status: Academic Departments, Centers, and Others

At present IUT has two faculties and six degree-awarding departments as listed below:

### Faculty of Engineering and Technology

- Department of Civil and Environmental Engineering (CEE)
- Department of Computer Science and Engineering (CSE)
- Department of Electrical and Electronic Engineering (EEE)
- Department of Mechanical and Production Engineering (MPE)

### Faculty of Science and Technology

- Department of Technical and Vocational Education (TVE)
- Department of Business and Technology Management (BTM)

In undergraduate programmes, the university offers Bachelor degrees of four-year duration in the departments of MPE, EEE, CSE and CEE (Civil and

Environmental Engineering) under the faculty of Engineering and Technology. Four-year programs as Bachelor of Business Administration in Technology Management degree and Bachelor of Science in Technical Education are offered by the BTM department and TVE department respectively. The Technical and Vocational Education (TVE) department also offers a bachelor's degree of one/two years duration to students enrolling with a Higher Diploma / Diploma in engineering fields and four year Bachelor of Tourism and Hospitality Technology (BTHT) under the Faculty of Science and Technical Education. At this moment, the total annual enrollment in the undergraduate programmes is about 550. IUT offers postgraduate programmes as well. A list showing the degrees being offered by the Faculty of Engineering and Technology, and Faculty of Science and Technical Education are shown in **Fig. 1.2**.

The postgraduate programs include Doctor of Philosophy in the departments of MPE, CSE, EEE, and CEE; Masters in the departments of MPE, CSE, EEE, CEE, and TVE and Postgraduate Diploma in the departments of MPE, EEE, CSE and TVE. The normal duration of Doctor of Philosophy, Masters, and Post-Graduate Diploma are three, two and one year respectively. Currently, the total annual intake in the graduate programs is about 100.

In addition to the above degree-awarding departments, IUT also has the following Centers and non-academic Departments:

- Energy and Environment Center (EEC)
- Research Extension Advisory Services and Publication Department (REASP)
- Information and Communication Technology (ICT) Center
- Office of Accreditation and Quality Assurance (OAQA)

To facilitate academic activities, at present, IUT has the following associated infrastructures:

- 1 Administrative Building, 2 Academic Buildings, 1 Library
- 2 Dormitories for the male students, 1 Dormitory for the female students, 3 Cafeterias (2 male +1 female), 2 Utility buildings
- 1 Auditorium, 1 Mosque, 3 Single storied Workshop buildings
- 1 Four-storied, 3 Two-storied Residential Buildings for Faculty and staff
- 1 Medical Center and 1 Laundry facility, 1 Student Center, 1 Gymnasium
- 1 Electric sub-station with two 600 kVA Diesel Generators
- 1 Pump-house for the supply of water

The current number of students, faculty members and staff associated are summarized below:

- No. of Students (UG and PG) : 2800 (approximately)

- No. of Faculty Members : 124 (Regular)
- Part-Time Faculty members : 100
- No. of officers and related staff : 153

### **1.10 Summary**

IUT needs to make a brief self-assessment to visualize the strength of the present curriculum, academic and staff line-up, quality of students, teaching-learning methods, research works at different labs, motivational strength of faculty and staffs, the outcome of graduates, assessment of the contribution of alumnae to make itself sustainable and competitive. Eventually, a comprehensive strategic plan is required targeting the achievable strategic pillars within a short duration, such as 2021- 2026.

## 2. GUIDING PRINCIPLES

### 2.1 Introduction

IUT by nature is expected to an international university established by the OIC for creating graduates for the Islamic world and the globe as a whole. Therefore, IUT's Strategic Plan is to be set based on the OIC STI Agenda 2026, OIC Action Plan 2025, and OIC Charter. The key points of these documents are summarized as guiding principles for preparing a strategic plan of IUT.

### 2.2 OIC STI Agenda 2026

The key decisions of OIC STI Agenda 2026, Astana, 10~11 September 2017 are summarized below:

#### **Priority 1: Nurture the Thinking Mind – Build a Culture of Science and Innovation**

It will be achieved through the quality of education, life-long learning, skills for gainful employment, entrepreneurship, innovation, and sustainable development, critical thinking, integrity, curiosity, and creativity. Creative thinking skills can only be taught to students if teachers go through effective communication training.

#### **Priority 2: Making People Employable: Education and Skills**

To achieve this target annual national budget for education is to be increased at least at 8% of the total budget, 20% of students are to be enrolled in technical and vocational education among the 15-19 year-age cohort, industrial and professional organizations are to be engaged in technical and vocational education, STEM (Science, Technology, Engineering, and Mathematics) is to be introduced in education.

#### **Priority 3: Safety of Water, Food and Environment**

This target can be achieved by proper water-use, recycling and management, increasing farm productivity and plant diversity, food safety and setting Halal standard.

#### **Priority 4: Ensure Healthy Lives for all Citizens**

Policies are to be taken for ensuring healthy lives for all citizens; particularly the sanitation system is to be improved significantly.

#### **Priority 5: Improve the Quality of Higher Education and Research**

In OIC member states, higher education and research intensities are still lag behind the developed countries. University education in member states must

move beyond simple expansion in enrolment to the focus towards contemporary knowledge generation, excellent teaching, expanded international linkage and societal impacts. Global scientific outputs (publications and patents) are to be increased by 100% in the next ten years, R&D workers are to be doubled in the next ten years, and understandings of ethics and social responsibility are to be developed. The faculty members are to be made as to the “long pole” in the tent of education and research and allow time to build a critical mass of teachers and research groups in key areas. Networking and linkage with universities are to be developed. Dependence on government funds is to be reduced. On the other hand, fund generation from other sources is to be increased. Centers for young scientists are to be created to share knowledge and joint research with others.

**Priority 6: The Case for Mathematics and Physics; Biology and Biochemistry; and the Chemical Sciences**

The 21<sup>st</sup> century will probably belong to biology and new material. Research works on biotechnological tools, fuel cells, high-performance computation, etc. are to be conducted.

**Priority 7: Managing Big Data with Security in the Digital Economy**

Cybersecurity strategy is to be improved and IT education is to be enhanced.

**Priority 8: Managing Energy Requirements**

Research works on renewable energy, efficient use of energy, and nuclear energy, etc. are to be emphasized.

**Priority 9: One Planet: The Environment, Climate Change, and Sustainability**

Research works on green technologies, effective management and planning for the protection and restoration of ecosystems including the marine environment, carbon sink, etc. are to be conducted. Preparation for the adverse impacts of climate change is to be taken.

**Priority 10: Big Science Programs**

Multi-disciplinary research works, such as design and launching satellite, disaster management, mapping the marine environment, minerals of OIC member states, PP project for science and technology, harmonizing trade laws, industrial standards in basic and applied science are to be encouraged.

IUT can set the research projects of different laboratories based on the above-mentioned STI agenda of OIC. It is necessary to prepare a plan for improvements of the current lab facilities and strengthening the faculty lineup for the implementation of these agenda.

## 2.3 THE OIC – 2025: PROGRAMME OF ACTION

This document marks the second phase of the OIC Ten Year Programme of Action (TYPOA) that was initiated in 2005. In this action plan, the following issues were highlighted:

- Palestine and Al-Quds
- Counter-terrorism, Extremism, Violent Extremism, Radicalization, Sectarianism, & Islamophobia
- Moderation, Cultural and Interfaith Harmony
- Peace and Security
- Environment, Climate Change and Sustainability
- Poverty Alleviation
- Trade, Investment and Finance
- Agriculture and Food Security
- Employment, Infrastructure and Industrialization
- Science, Technology and Innovation
- Education
- Health
- Advancement and Empowerment of Women, Family Welfare and Social Security
- Joint Islamic Humanitarian Action
- Human Rights Media and Public Diplomacy
- ICT and Digital Information Structure
- OIC Institutional Reforms Human Rights Media and Public Diplomacy
- ICT and Digital Information Structure
- OIC Institutional Reforms

As an academic institution for higher education, IUT can be involved with the following areas of the OIC Action Plan 2025:

- Protect and preserve the environment, promote sustainable production and consumption patterns and enhance capacities for disaster risk reduction and climate change mitigation and adaptation.
- Enhance collaboration among the Member States and international partners in environmental protection and conservation, including the implementation of multilateral environmental agreements.
- Maximize the productive use of water and minimize its destructive impact.
- Strengthen cooperation for the implementation of the OIC Water Vision and the attainment of the goals and targets defined therein.
- Increase local productive and export capability of OIC Member States with a focus on value-added sectors in agriculture, manufacturing, maritime and services.

- Increase the value addition in natural resource-based industries paying special attention to employment generation, Science, Technology and Innovation development, and the sharing of technology.
- Develop and facilitate the green industry and industries based on the blue economy.
- Reduce costs of export/import and improve services through the development of adequate transport corridors and networks to increase the competitiveness of OIC Member States.
- Establish safe, secure and interconnected multimodal transport corridors and networks among the Member States to facilitate trade, social and cultural exchanges among them.
- Enhance capacities of OIC Member States in energy production, trade and distribution to ensure access to energy for all.
- Ensure access to affordable, reliable, sustainable, and modern energy for all.
- Increase the share of electricity generation through alternative renewable energy sources.
- Publicize and highlight the opportunities and possibilities of investment that exist in the OIC Member States and the best practices of some Member States in the tourism sector.
- Establish alliances between tourism stakeholders to strengthen joint tourism marketing and promote cooperation efforts at the sub-regions level as well as at the level of the OIC region as a whole.
- Enhance the role of Public-Private Partnerships (PPPs) in the expansion and upgrading of the existing tourist capacities and activities and for the construction of new facilities of appropriate quality and service standards, using up-to-date technologies.
- Promote regional and cross-border tourism projects in the Member States to attract investments.
- Promote awareness about Islamic tourism services in the Member States and beyond.
- Promote the exchange of information and best practices as well as strategies, policies and experiences in the area of occupational safety and health, employment, social protection and migration, to promote a culture of prevention and control of occupational hazards.
- Promote labor protection, which comprises decent conditions of work, including wages, working time and occupational safety and health, essential components of decent work. Improve information transparency on employment statistics and promote vocational training programmes.
- Develop a dynamic and well-functioning private sector for increasing investment and trade, economic growth, industrialization and structural transformation.
- Increase the contribution of SMEs to the overall economic growth and development of OIC Member States and enhance their competitiveness

and dynamism by facilitating their access to information, market, human resource development and skills, finance as well as technology.

- Promote and encourage women's SMEs.
- Advance the development and utilization of science, technology and innovation for sustainable development through encouraging research, technological capabilities in all sectors, innovation and domestic technology development by ensuring a conducive policy environment, in line with the decisions of the relevant OIC organs and fora, including the COMSTECH and the OIC Vision 1441H for Science and Technology.
- Ensure inclusive and equitable quality education at the primary, secondary and tertiary levels and promote life-long learning opportunities that advance knowledge and skills needed for gainful employment, entrepreneurship, innovation and sustainable development.
- Ensure healthy lives, improve social determinants of health and promote well-being for all at all ages through equitable access to health care.
- Enhance cooperation in eradicating and containing major communicable and non-communicable diseases, collaborate on vaccine production and, where necessary, utilize relevant centers of excellence.
- Enhance cooperation between the Member States and international partners for the establishment of strategies regarding human resource management and financial aspects of the Strategic Health Programme of Action.
- Promote ICT skills and digital technologies and information structure.
- Advance the use of ICT as a tool for inclusive economic growth, e-governance and social and human development and access to knowledge and technology.

In the Action Plan 2025, it was also highlighted to transform the General Secretariat and the OIC subsidiary organs, where needed, into modern institutions fully competent to act in support of the OIC and its objectives. IUT needs to take initiatives to reform it to support OIC Action Plan 2025 visibly and effectively.

## **2.4 Charter of the OIC**

In OIC Charter, cooperation among the member states was highlighted to achieve sustainable socio-economic development for effective integration in the global economy and also to preserve and promote all aspects to the environment for present and future generations. In the Charter, it was also mentioned that all member states commit themselves to the purposes and the principles of the United Nations (UN) charter. Therefore, as an academic institution, IUT may focus research in line with the Sustainable Development Goals (SDGs) of the UN.



## 2.5 SDGs of UN

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. As shown in **Fig. 2.1**, 17 Sustainable Development Goals (SDGs) were set by the UN with an urgent call for action by all countries in a global partnership. It is recognized that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests. As an academic institution of higher studies, IUT can take initiatives for achieving the SDGs.



**Fig. 2.1** SDGs of the United Nations (UN)

## 2.6 Summary

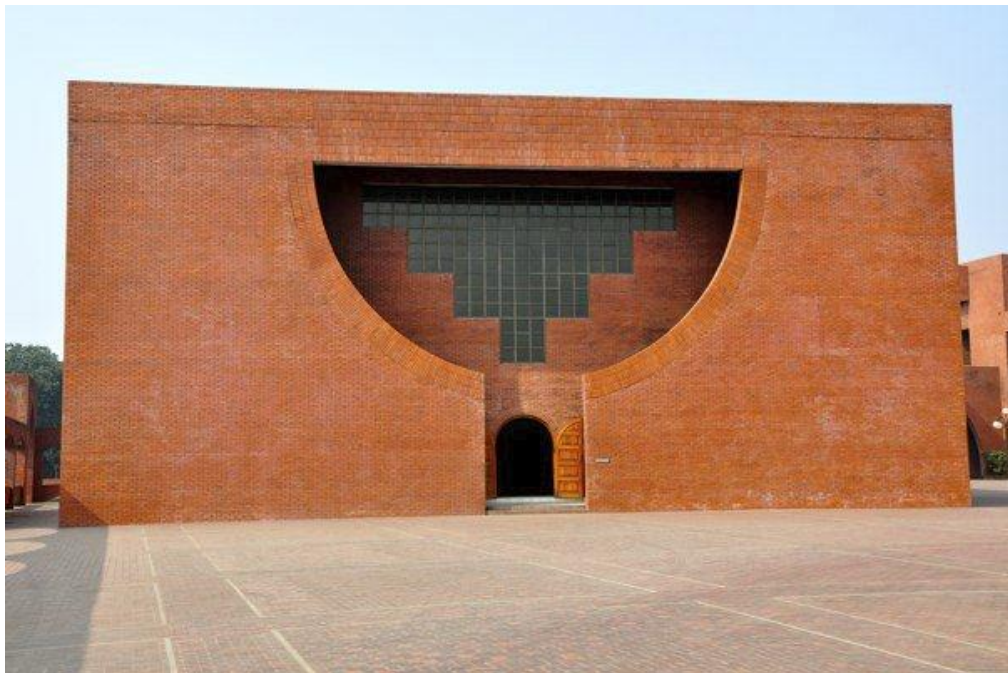
Based on the OIC Charter, OIC STI Agenda, OIC Action Plan, and SDGs of UN; it is revealed that IUT needs to be reformed into a modern institution fully competent to act in support of the OIC and its objectives through a brief and an attainable Strategic Plan. IUT can be a part of these activities of OIC by transforming into a research-driven institution gradually.

The following strategic pillars are considered in the six-year Strategic Plan (2021-2026) of IUT:

- Student-centered Learning

- Research-oriented University
- Knowledge Transfer Partnership Development and Networking with Industries
- Internationalization
- Accreditation of the Academic Programmes
- Transforming from a Small-to a Medium-size University
- Enhancing Financial Strength

The above mentioned strategic pillars are also in line with the Vision and Mission of IUT and these are discussed in Chapter 4.



### 3. SWOT ANALYSIS

#### 3.1 Introduction

In this chapter, a comprehensive SWOT analysis is presented. It is done to identify the strengths on which strategies can be built, find out the weaknesses to shore up, look for the opportunities to capitalize on and figure out the threats to monitor on regular basis. For a SWOT analysis, it is imperative to set the boundary of the analysis. Although IUT is an international university *par see*, at present, a large proportion of its community (students, faculties and staffs) comprises of the host country population (from Bangladesh). However, on its way to become a truly international university, it is imperative to reach an unparallel height in the local context. This SWOT analysis, therefore, puts a substantial focus on the local context. However, the analysis also pays attention to global aspects.

#### 3.2 SWOT Analysis

The internal factors as Strengths and Weaknesses of IUT are discussed below:

##### **Strength (S)**

***Status of Being International (S1):*** In Bangladesh, apart from having some renowned government and private universities that offer engineering degrees, there are two international universities as well – the Islamic University of Technology (IUT) and Asian University for Women. The latter is located in the port city of Chittagong, it is a ‘women-only’ university and at the same time, it has limited programs in the fields of science and technology. It makes IUT the only international university in Bangladesh that welcomes both male and female students and at the same time offers most of the conventional degrees in the field of engineering both at undergraduate and graduate levels. The graduates of IUT enjoy the recognition of this unique status throughout the host country. This also makes IUT one of the very few Asian universities that possess international status.

***Alumni in the OIC Member States (S2):*** IUT now has 5,500 number of alumni in 35 OIC member states. In general, the alumni body plays an important role in upholding the values of the university as well as contributing to the development of the university. So far IUT has not explored significantly the potential of the alumni body. However, the SWOT analysis strongly believes that the alumni body has an important role to play in the strategic plan by contributing to many aspects of the development of the university including fundraising, public relation, curriculum development, creation of industry linkage, collaborative research, and others.

***Tax-Free Status (S3):*** Being a subsidiary organ of the OIC, IUT enjoys a tax-free status in Bangladesh. Of course, having around 85 percent of host country students and employing the majority of local people, IUT is contributing a lot to Bangladesh education and economy. This provides a vital competitive edge to this organization as compared to other universities of this nature in Bangladesh. This way, it can, on one hand, operate at a much lower cost and on the other hand, expand its research laboratories, infrastructural and logistics facilities more economically.

***The Campus (S4):*** IUT campus is located just outside Dhaka city but within the proximity of the Dhaka metropolitan area. The campus has all basic facilities – academic buildings, administrative buildings, accommodation for both male and female students, library, several quality cafeterias, park, spacious playgrounds, medical facility, facilities for in-door and out-door sports, limited faculty and staff accommodations, guest houses and not to forget a beautiful Mosque located its perimeter. Most of the existing infrastructures are less than 6 stories. There are several vacant places as well within the campus allowing the opportunity to expand infrastructures in near future both vertically and horizontally. This allows formulating a comprehensive strategic plan keeping growth in focus.

***Wide Spectrum of Operation (S5):*** IUT's spectrum of operation is much wider than almost all the engineering universities in Bangladesh. Apart from offering undergraduate degrees in almost all widely popular branches of engineering, the institute also has strong postgraduate programs through which M. Engineering, M. Sc in Engineering and PhD degrees are being offered. Apart from that, unlike most other universities, IUT also provides technical and vocational education which enables the institute to contribute to a much wider human resource development initiative. This way, IUT can produce manpower in the form of graduate engineers, researchers as well as technical experts who can assist the engineers with graduate degrees in their jobs.

***Guaranteed Scholarship for Selected Number of International Students (S6):*** At present, during the intake, around 100 students from the OIC member states can avail full funding to complete their studies. Also, 120 students can get a partial scholarship at the undergraduate level. The tuition waiver is also available for meritorious students at the post-graduate level. This unique opportunity ensures that IUT can maintain an international environment within the campus.

***Research and Consultancy (S7):*** In the case of IUT, its ability to take part in research and consultancy can also be considered both as strengths and weaknesses. To conduct research projects and support the industry, IUT has

already established the Research Extension Advisory Services and Publication Department (REASP). To promote research and technology development in the field of energy and environment, IUT has also set up an Energy and Environment Center. Some of IUT's laboratories are furnished with world-class research facilities. Through these facilities, IUT has created core competence in some specialized branches of engineering and some of the faculty members in IUT are conducting world-class research and providing testing and consultancy services to the industry. IUT needs to invest more in its core competence and simultaneously replicate this success to other areas of specialization conforming to the demand of the society.

***Young Faculty Members on Study Leave (S8):*** A good number of young faculty members are now on their study leave pursuing their PhD in top universities in Asia, Europe, North America and Australia. So far, the rate of return of the faculties on study leave is satisfactory. If these faculty members come back and rejoin IUT, then within a few years IUT can have a faculty lineup, which can be considered as one of the strongest in Bangladesh.

***Multicultural Environment for Learning (S9):*** IUT is one of the very few universities in the region which harbors a multicultural environment as in almost every academic year students from at least 25 different countries get enrolled. Students from different countries maintain their societies as well, which are active in exchanging knowledge from different cultures. This way, IUT provides an environment conducive to multicultural learning. All records show that their coexistence is congenial.

***Free from Political Interference (S10):*** Unfortunately, often the day to day operation of universities located in a developing region gets hampered due to political influence from the local and global environment. A university of Bangladesh, which is where IUT is housed, is not free from this issue either. IUT, since his inauguration, has successfully maintained its academic calendar so far which is widely recognized locally as well as internationally. This was mostly possible due to its 'residential' status.

## **Weakness (W)**

***The vulnerability of Faculty Lineup (W1):*** Although IUT is proud to have some faculty members with high reputation and experience, the number is still substantially lower than that required. There are several reasons for it. Some of the notable ones include – i) some highly acclaimed professors going to retirement, ii) inability to attract faculty members having good exposure to academia and the industry, iii) lack of research facilities, iv) a substantial number of young faculty members remaining on leave to conduct higher studies, v) those who are coming back, a substantial part of them leaving again

for better opportunities in both home and abroad, v) none or lack of regular faculties for Islamic, humanities, and allied science courses, and, vi) a lack of suitable living facilities near or within the campus. Therefore, almost all the departments are now heavily dependent on their young lecturers (mostly having an undergraduate degree) and part-time faculty members to carry on the day-to-day teaching activities. There is a substantial vacancy in the faculty positions (Professor, Associate Professor, and Assistant Professor) as per the organogram. It is always expected to have a strong faculty line-up for the long-term sustainability of the university. At present, the loss of a key faculty member is expected to substantially hamper the regular operation of any department. To add more, every branch of engineering has its specialized areas. However, IUT does not possess a balanced faculty lineup covering most of the major areas of expertise in each program.

***Outdated Organogram (W2):*** IUT's organogram was made for a small number of the student population (less than 1,000 students). However, the number of students' intake both in the undergraduate and postgraduate programmes has increased significantly. At the same time, new degree programmes have also been launched. To add more, a substantial number of its young faculty members have left for higher studies. This has left a void in the faculty lineup and at present, almost all the programmes are running with 20-25% faculty members hired on as part-time or *ad hoc* basis.

***Laboratory Facilities (W3):*** Some of the major problems associated with the laboratory facilities for almost all the departments in IUT include – i) inadequate sets of equipment to conduct practical lectures, ii) sharing of laboratory facilities with other departments, iii) space constrain, and, iv) very limited laboratory facilities to conduct cutting edge research. Although the laboratories of most of the departments have all the equipment needed to conduct all the experiments within the undergraduate curriculum, the number of sets of equipment is not sufficient – forcing students to share the equipment. This issue became more vivid after almost doubling the intake of students in 2017. The laboratories did not expand keeping pace with the growing number of intakes.

***Lack of Research Output (W4):*** IUT has been established as a teaching and 'research' institution. However, to remain relevant with time, the research output by IUT faculty members and students needs to be increased both in quality and number.

***Limited Industry Collaboration (W5):*** Strong industry collaboration has become a must for higher education institutes all over the world. Although both teaching and research have remained as the objective of IUT, so far, its focus has mostly been on teaching. IUT is hosted in Bangladesh where university-industry collaboration is still quite limited especially for the higher education

institutions where teaching, rather than research, is the main focus. However, the trend is changing as in recent times, most of the government and private universities in Bangladesh are acknowledging the need for university-industry collaboration in teaching, research and technology development. IUT needs to bring in massive modifications in its curriculum, become more vigilant in action research and work more closely with the industry.

***Space Constraint (W5):*** Although IUT has its permanent campus which has ample options to expand its infrastructure, the current infrastructure is proving to be insufficient to accommodate its growing demand for classrooms, laboratories, research facilities, on-campus accommodation facilities for students, faculty and staff members as well as basic amenities. Infrastructure development is a time-consuming process and at present, this shortcoming is impacting the growth of the university.

***Limitations in Revenue Generation (W6):*** A large portion of IUT's regular expenditure is at this moment being arranged through the mandatory contribution from the member states. The revenue generated through tuition fees, research and consultancy services is still not sufficient to meet its basic expenditure. Alternative fund collection by soft loans from financial institutions, such as IDB will be helpful. Being an international status, IUT often gets deprived of various local funds that are being offered to the government and private universities in Bangladesh. At the same time, being mainly focused on teaching, IUT is not being able to secure major international research funds or consultancy projects. This can be considered as a major inherent weakness of IUT.

***Thin on Culture/Racial/Ethnic Diversity (W7):*** IUT is meant to be multicultural. However, it can be seen that over the past few years its international community is shrinking steadily. Being unable to retain its international community will jeopardize its status as an international university.

***Programs Needing Accreditation (W8):*** Apart from the Civil Engineering undergraduate programme, none of the degrees offered by IUT are at present accredited by any reputed authority. This is a major weakness of IUT as most other universities of similar standard offering similar degree programmes have already taken or are in the process of getting accredited by BAETE or ABET. Even the Civil Engineering program was not accredited based on Outcome Based Evaluation (OBE), i.e., it requires to renew its accreditation at the earliest possible date.

***Relatively Less Foreign Students (W9):*** The issue of the number and overall quality of the foreign students that IUT receives every year as compared to the local intake has remained an issue of great concern. Unfortunately, IUT is

not being able to attract more foreign students with an excellent academic background. A fast and automated selection process is needed to be put in place to ensure the quality of foreign intake. At the same time, IUT needs to increase its footprint as a university that provides quality education to attract good students.

***Lack of use of Information Technology/ERP (W10):*** Most of the official matters are still being processed using the traditional paper-based system, despite being online Enterprise Resource Planning (ERP) or less paper-based system is available in many IHL. ERP will ensure an easy data processing platform and save time and paper as well as contribute to the environment and reducing cost. IUT needs to improve its resource planning materials automated.

The external factors as Opportunities and Threats to IUT are discussed below:

### **Opportunity (O)**

***Industry Demand (O1):*** As present, Bangladesh, as well as most of the OIC member states, are experiencing massive growth in the fields of infrastructure development, energy and information technology. This is expected to create many job opportunities for graduates with an engineering degree as well as technical education from reputed universities. At the same time, the practice of university-industry collaboration is gaining popularity in Bangladesh and other OIC member states. This is expected to create greater job opportunities for the graduates, help faculty members remain up to date with the market, as well as generate revenue for the university through research, consultancy and technology development which can be utilized to excel further in teaching and research.

***Policy and Regulations (O2):*** Bangladesh and most of the developing countries are now imposing more and more regulations on involving certified engineers in various infrastructure projects as well as other engineering establishments or projects. Hence, there will be a high demand for engineers having bachelor's degrees.

***Interdisciplinary and Integrated Learning (O3):*** At present, interdisciplinary degrees, as well as research, are of high demand. IUT at present offers degrees in most of the major branches of engineering – computer science and engineering, civil engineering, electrical and electronics engineering and mechanical engineering. At the same time, it is now offering degrees in specialized branches of engineering, such as, business and technology management and software engineering. Industrial production engineering and several other programs are also in the pipeline to be offered soon. Therefore, it



is in a situation to take the benefit of demand in interdisciplinary and integrated learning and research demand.

***Providing Diverse Services through Interdepartmental Collaboration (04):*** Although so far, the initiatives to conduct consultancy services or research studies involving multiple departments, having a setup to do so creates a huge opportunity for IUT to provide diverse services through interdepartmental collaboration.

***Infrastructure Development Activities around IUT Campus (05):*** IUT is located just outside the northern periphery of the inner core of Dhaka city. However, at present, the city is expanding fast in this direction and several major transportation and infrastructure projects are taking place around IUT. Therefore, once these projects will be completed, IUT is expected to find itself at the center of the newly planned extension of Dhaka city where many universities, offices and the vibrant residential area will be located. The communication between IUT and the major International airport will also become much faster as well. Therefore, if IUT can establish her supremacy in education and research then it can avail the opportunity to emerge as a major hub of education and research in Bangladesh.

***Increased Research Activities in the OIC Member States (06):*** At present, substantial initiatives are being taken by the universities in many member states of the OIC to enhance their research capabilities. Through these initiatives, numerous research projects are being funded. At the same time, collaboration can be encouraged among the universities in the OIC member states. For example, at present several collaborative research projects are being carried out between universities located in the Middle East and Southeast Asia. Being a subsidiary organ of the OIC, it is expected that such initiatives will open more doors for IUT in establishing research collaboration.

## **Threat (T)**

***New Registration and Expansion (T1):*** It is expected that in near future, a good number of new universities having ties with reputed international universities, will obtain registration to operate in Bangladesh. At the same time, the many existing universities are expanding or universities that did not have engineering programs, are opening new engineering departments. Therefore, if IUT does not remain prepared then it may fail to attract the best of the students in the university. At the same time, the contest to obtain funding for research and consultancy jobs will also become shared and divided.

***Attract and Retain Faculty Members (T2):*** The emergence of new universities alongside the expansion of existing universities are expected to

create high demand for qualified faculties. Unfortunately, the financial packages offered by IUT are not attractive for the faculty members, as compared to other universities in Bangladesh of its class. Hence, as the job market for engineering faculties expand and become more attractive, it will become hard for IUT to attract highly qualified faculties or even to retain the existing faculty members.

***Accreditation (T3):*** As said earlier, currently only the civil engineering program in IUT is accredited by any reputed authority (i.e., Institute of Engineers, Bangladesh). However, having a professional membership is becoming a must for the engineering graduates these days and most of the reputed universities in Bangladesh either have accreditation or in the process of obtaining accreditation. Hence, without accreditation, undergraduate programs currently being offered by IUT may become less attractive to future students soon.

***Poor Transportation (T4):*** IUT has started welcoming off-campus students in 2017. A substantial number of mega transportation infrastructure projects are expected to take place along the corridor used to access IUT. It is feared that during the construction phases, which may take 5-10 years, the transportation between IUT and Dhaka city will be heavily hampered, discouraging high-quality prospective students to get admission in IUT. At the same time, potential faculty members become reluctant to join IUT and existing faculty members also feel the pain of long commuting time which is putting the faculty lineup of IUT under threat.

***Global and National Trend of Reduced Funding for Higher Education (T5):*** This threat of reduced global and national trends of reduced funding for higher education is generic for all universities in the world. However, for IUT, this may have a greater consequence as its future strategies of expansion are heavily dependent on funding and at present, the university is securing a small share of its expenditure through consultancy and research projects.

The outcomes of the SWOT analysis are illustrated in **Fig. 3.1**.

### **Formulation of Strategies**

The final stage of the SWOT analysis involves aligning strategies in line with the outcomes of the SWOT analysis considering the combination of the internal and external factors as illustrated by **Fig. 3.2**.



**Fig. 3.1** SWOT Analysis Outcomes at a Glance

	Strengths (S)	Weaknesses (W)
Opportunities (O)	SO Strategies	WO Strategies
Threats (T)	ST Strategies	WT Strategies

**Fig. 3.2** Strategy Formulation against SWOT Outcomes

- SO Strategies: Use strengths to fully utilize the advantages of opportunities
- WO Strategies: Overcome weaknesses utilizing the advantages of opportunities
- ST Strategies: Use strengths to overcome threats
- WT Strategies: Minimize weaknesses to avoid threats

## **Strategic Decisions for IUT**

### **SO Strategies**

- Being an international university, IUT can put the focus on the modernization of its curriculum to feed the ever-increasing demand for global engineers throughout the world. For that, IUT will also require to capitalize on a wide spectrum of operations to offer interdisciplinary and integrated programs. This way, IUT can also foster interdisciplinary research. These can be put to action within the short-term as it does not require the mobilization of huge research or many alterations to IUT's current way of operation. [S1, S5, O1, O2, O3].
- Use IUT's strong brand image (focusing on campus and dorms) to recruit national and international students, with particular emphasis on OIC member states. This way, member states can produce their future nation builders and IUT can become a more multicultural environment. At the same time, this will assist in tapping into the opportunities of collaboration with other universities in the OIC member states [S1, S9, S10, O4, O6].
- IUT can capitalize on its strong alumni base in the OIC member states to create a wider market for its graduates. For that IUT needs to create a platform to assist interfacing with its alumni base. [S2, O1].

### **WO Strategies**

- IUT needs to step up on its initiatives to get all their programs accredited soon. This will encourage meritorious students from the OIC members to join IUT. Also, this can encourage high-quality faculty members from the member states to serve IUT as well. The process can commence by getting programs accredited under BAETE, the local accreditation board. [W1, W9, W10, O1]
- IUT needs to seek active collaboration with reputed universities in the world with special attention to the OIC member states. Several exchange programs can also be initiated where renowned faculty members from those universities can pay short term visits to IUT and vice versa. Under this initiative, new research facilities can be built and existing research facilities can be enhanced. This will play a great role in increasing IUT's

research output. Also, this will pave the way for student exchange programs and collaborative research. This way IUT graduates will have greater exposure to the wider market in the OIC member states. [W1, W2, W3, W4, W10, O4, O6].

### **ST Strategies**

- IUT can highlight its international as well as a tax-free status to encourage potential high-profile faculty members to join the IUT family. The status, not only benefits come with social status and personal financial benefits but also facilitates increasing research facilities at much lower financial requirements. [S1, S3, T2]
- To keep pace with the growing development that is taking place all around, IUT needs to expand. IUT can encourage both local and foreign students showing that there is no influence of national politics inside IUT. This will provide IUT a unique competitive edge to evade the threat of new registration and expansion of other universities. [S4, S10, T1]
- IUT at present does not provide any opportunities to transfer credit. At the same time, the scholarship opportunities get decided at the time of enrollment and which has no impact throughout the enrollment period irrespective of the performance of the students. IUT's scholarship fund at present comes from a single source. Involving the alumni and the industry, IUT can look forward to introducing more scholarship opportunities through which it can attract more students during enrollment as well as in later stages through credit transfer. [S6, T1]
- IUT already has a legal framework to provide testing and consultancy services to the society. IUT at present needs to step up its effort in making this a substantial source of revenue. This will bring multifarious benefits – generate fund for research and infrastructure development, provide scholarship to students, be a source of income generation for its faculty and staff members and of course, encourage its huge young faculty lineup who are now pursuing their higher studies in reputed alma maters around the globe, to come back and serve IUT. [S7, S8, T1, T2, T5].

### **WT Strategies**

- To put a check on the eminent brain drain in the faculty lineup, IUT can incentivize its faculty members based on their continuing accomplishments. The incentives can be provided in various forms, such as public acknowledgment, increased research fund, promotion, financial acknowledgments, placement in more esteemed posts, etc. [W1, T1]
- IUT can introduce talent-based incentives like scholarships to the students instead of providing pocket allowance and other allowances to all categories of students. This is expected to be able to attract students of higher academic quality. [W10, T5]

- Certainly, IUT needs to get all its programs accredited with no further delay to avoid being obsolete. [W9, T3].

### 3.3 Summary

Based on the SWOT analysis outcomes, it is revealed that IUT needs to take necessary steps on the following issues:

- Improvement of curriculum
- Accreditation from local and international bodies
- Collaboration with industries and research organizations
- Internationalization
- Recruitment and retention of high profile faculty members
- Transforming to a medium-sized university
- Testing and consultancy services
- Incentives and motivation policy for faculty and staff
- Talent based scholarship in different programs

The strategic pillars (as explained in Chapter 4) were set based on the above-mentioned outcomes of SWOT analysis. IUT should monitor the outputs of the SWOT analysis and corresponding action plans to evaluate their efficacy through the Office of Accreditation and Quality Assurance (OAQA). It needs time to time update the SWOT analysis as IUT makes progress, new opportunities open and new threats emerge.



## **4. STRATEGIC PLAN 2021-2026**

### **4.1 Importance of the Strategic Plan**

The Organization of Islamic Cooperation (OIC) is the second-largest inter-governmental organization after the United Nations (UN) with a membership of 57 states spread over four continents. It can be noted that the 57 OIC Member States produced only 11.2 percent of the world's total GDP even though the Muslim world is accounted for 22.6 percent of the world's total population in 2013. Currently, the average GDP per capita in the OIC Member States is recorded at US\$ 6,076 in 2013 which is US\$ 1,234 and US\$ 6,290 lesser than the other developing countries and world averages respectively. The average real GDP per capita growth rate in the OIC Member States was recorded at 1.8 percent in 2013 compared to 2.2 percent in the world and 4.1 percent in other developing countries (The OIC 2025 : Programme of Actions). This is happened due to a knowledge gap because of its deficiency in science, technology and innovation (STI). For example, (i) OIC countries' expenditure on R&D as a proportion of GDP is about one-tenth that expended by most developed countries, (ii) the number of researchers, scientists, and engineers in the OIC engaged in R&D is one-tenth that found in the developed world, (iii) the number of patents filed by OIC nationals in 1997 accounted for only 0.3 percent of the world average, (iv) scientific publications in international journals by scientists and engineers from member states accounted for only about 3 percent of the world's total.

As the foundation of IUT was laid with an aim for the socio-economic development of the Ummah, therefore, it is necessary to reform IUT with a Strategic Plan so that it can play an active role in the social and economic developments of the OIC member states through its graduates and faculty members.

### **4.2 Strategic Pillars**

Knowledge acquisition is emphasized highly in the teachings of Islam. This quest for knowledge has assumed increasing importance in today's knowledge-intensive economy. Success in the new economy will go to countries that are proficient in the acquisition, generation, distribution and exploitation of knowledge.

Islamic University of Technology (IUT) has been established for creating graduates in the field of engineering, technology, and technical education for OIC member states so that they can play a vital role in the economic development of OIC member states. Since its establishment, the growth of IUT in terms of academic programs, infrastructure, the population of students,

alumni, etc. is significant, however, it is essential to make a Strategic Plan for the period from 2021 to 2026 to boost the contribution of IUT in the economic and social development of Muslim countries. With this background, IUT has decided to establish a systematic process of envisioning a desired future and translating this vision into broadly defined goals or objectives and a sequence of steps to achieve them through a Strategic Plan 2021 – 2026 in line with the Statute and Vision of IUT, OIC Charter, OIC Action Plan 2025, and OIC STI Agenda 2026. This strategic plan aims to achieve the following six specific pillars:

1. Student-Centered Learning (SP1)
2. Research-Oriented University (SP2)
3. Knowledge Transfer Partnership and Networking with Industries (SP3)
4. Internationalization (SP4)
5. Accreditation (SP5)
6. Transforming from a Small-Sized to Medium-Sized University (SP6)
7. Enhancing Financial Strength (SP7)

In this 21<sup>st</sup> century, science and technology are at the heart of development activities, it is, therefore, essential that if the Islamic world wants to march forward at the right pace with the contemporary world, it has to educate and train its youngsters with science and technology. Through the above-mentioned SEVEN strategic pillars, IUT will become a **Center of Excellence** for quality education for the students of the Muslim world and IUT will be able to contribute to the commitment of OIC in line with OIC Action Plan 2025 and OIC STI Agenda 2026.

#### **4.3 Mapping : Vision and Mission with Strategic Pillars**

The mapping of vision and mission of IUT with the seven strategic pillars are summarized in Table 4.1. It is found that the strategic pillars are aligned with the vision and mission of IUT.

#### **4.4 Mapping : OIC STI Agenda, Programme of Actions of OIC, Charter of OIC and SDGs with Strategic Pillars**

The mapping of strategic pillars (SP1 ~ SP7) with OIC STI Agenda 2026, The OIC – 2025 : Programme of Actions, Charter of OIC, and SDGs are summarized in **Table 4.2**. It is found that the strategic pillars are aligned with OIC STI Agenda 2026, The OIC – 2025 : Programme of Actions, Charter of OIC, and SDGs.



**Table 4-1** Mapping of Vision and Mission of IUT with Strategic Pillars

Vision	Mission	Strategic Pillars
<i>To be a leading University of Science, Engineering, and Technology in the World.</i>	<i>Providing education and training of international standard for the youths of the Ummah.</i>	SP1, SP5
	<i>Undertaking quality research leading to innovation.</i>	SP2, SP3
	<i>Launching cutting-edge disciplines matching the requirements of the member states.</i>	SP4, SP6, SP7
	<i>Internationalizing through increasing overseas students, staffs and external collaboration</i>	SP4, SP5

**Table 4-2** Mapping of OIC STI Agenda 2026, The OIC – 2025 : Programme of Actions, Charter of OIC and SDGs with Strategic Pillars

OIC STI Agenda 2026	SP1, SP2, SP3, SP5
<i>The OIC – 2025 : Programme of Actions</i>	SP2, SP6
<i>Charter of OIC</i>	SP4
<i>SDGs</i>	SP4, SP1, SP2

## 4.5 Student-Centered Learning

To compete in the dynamic labor market of knowledge-driven economies of the world, it is necessary to shift the paradigm of the existing teaching-learning strategy from the teacher-centered to the student-centered. The shift to the pedagogic concept of learning is necessary to stimulate creative, critical, and independent thinking among learners. Senior faculties with long experiences will be engaged in teaching the students by connecting their field-level experience and text-book knowledge. Junior-level faculties are to be trained gradually so that they can contribute to the teaching-learning process gradually. To compete with the other graduates from different universities, Outcome Based Education

(OBE) will be introduced. The curriculum of each program is to be set as per the international level of education keeping in mind accreditation from international and local bodies. Every course should be designed to achieve required Program Outcomes (PO) as well as the required levels of knowledge domain from Cognitive, Effective, and Psychomotor domains of learning. In addition to the general POs of other universities, an additional PO regarding developing a sense of responsibility towards Allah SWT and mankind is to be set. The curriculum needs to be revised keeping in mind the depth and breadth of knowledge, so that the graduates have experience on solutions of complex engineering problems and complex engineering activities. The graduates should attain a satisfactory level of Program Outcomes/Attributes (POs) at the time of graduation and the graduates should be capable to achieve Program Education Objectives (PEOs) after a couple of years of working in the industries. A rubric or evaluation system is to be developed to measure the attainment of POs and PEOs. Based on the regular feedback from the stakeholders, such as students, graduates, alumni, and employers; the curriculum of the programmes will be upgraded regularly. Faculty members will be trained for Outcome-Based Education (OBE). The students will take responsibility, work independently, and to be active learners. The programmes of each department will prepare itself keeping in mind accreditation by the Board of Accreditation for Engineering and Technical Education (BAETE) and Accreditation Board for Engineering and Technology (ABET). It can be noted that through OBE curriculum, graduates will be familiar with project-based learning (PBL), a student-centered pedagogy that involves a dynamic classroom approach in which it is believed that students acquire a deeper knowledge through active exploration of real-world complex engineering problems as well as complex engineering activities.

Through the achievement of this “Student-Centered Learning” strategic pillar, IUT will be able to level-up the following:

- A strong faculty line-up for student-centered learning
- A competitive and world-class curriculum for each program
- Improvement of quality of graduates
- A mind-set and practice for Outcome-Based Education (OBE)
- Continuous quality improvement (CQI)

## **4.6 Research-Oriented University**

IUT is to reposition itself as a research-oriented university where research and teaching/learning are mutually reinforced. The faculty of post-graduate studies will play a major role for promoting research and research related activities in the university. Relatively greater emphasize is to be given to research in addition to the teaching to create new knowledge for the development of OIC member states. The rise of the knowledge-driven economy has made it imperative for universities to vigorously undertake research to generate knowledge to boost the economies of the Muslim world. As an International University of OIC, IUT needs to move to develop world-class laboratory facilities for the execution of research and to be a leader as a research University globally. The strategic repositioning of IUT as a research-driven university will enable IUT to focus more on knowledge production to support evidence-based decision-making and boost the growth of the economy of the Muslim world. Due to the limitation in funding for lab development, a plan is to be made carefully to develop some specialized labs on a priority basis based on the availability of faculty, engagement of faculty in research and publication, and market demand. At the same time, IUT will explore all possible opportunities for collaboration in research with national and international organizations of OIC member states and other states. At the beginning of the process, IUT can select some research fields based on the research background of the faculty members and the facilities of the laboratories under the faculty members.

Through the achievement of this “Research-oriented University” strategic pillar, the university will be able to level-up the following:

- Effective teaching-learning environment linking research outcomes with teaching
- Strengthen faculty line-up by renowned researchers
- Create an environment for students for doing research and innovation
- Enhance industry-university partnerships
- Research collaboration with other universities
- Enrich industry-supported research projects
- Create the opportunity for graduates for research-based higher education

## **4.7 Knowledge Transfer Partnership and Networking with Industries**

The shift from the current outreach paradigm to the knowledge transfer partnership and networking with industries is essential for the development of the economy of the Muslim world. For example, the knowledge developed at IUT, the knowledge produced by the R&D activities of industries is to be shared in a common platform and thereby produce a network with industries. This will ensure the effective utilization of innovation created in IUT through research

activities. Knowledge production and transfer between universities and broad public and private sectors are supposed to be two-way traffic that calls for cultivation and fostering of symbiotic relationships. Through this knowledge transfer partnership and networking, the industries of the Muslim world will grow and play a vital role in economic and social development. Through the achievement of this "Knowledge Transfer Partnership and Networking with Industries" pillar, the university will be able to level-up the following:

- Visibility of the university in OIC member states
- Collaborative research with industries
- The solution of contemporary problems of OIC member states
- Dissemination of knowledge to professionals
- Capacity improvement of knowledge sharing platform
- Enhancement of the image of university globally
- Enhancement of quality publications
- Enhancement of patents
- Improvement of the ranking of IUT
- Job opportunities for graduates.

#### **4.8 Internationalization**

The internationalization of the Islamic University of Technology (IUT) is one of the key requirements to make it visible and active to OIC member states and also on a global platform. Western universities are not only creating themselves international in their home country but they are also opening branches in many developing countries for establishing powerful international networks and associations to mobilize aptitude and ability in favor of the transfer of knowledge, advanced policies and global research. On the other hand, IUT is a university of 57 member states of OIC, which has three official languages, such as English, Arabic, and France. IUT's foundation was laid with the mindset of international and cross-cultural characteristics. The graduates of IUT should have international characteristics, such as a global mindset, open-mindedness, second language competence, flexibility of thinking, tolerance and respect for others, and Islamic morals and ethics in addition to the other attributes at the programme level. Internationalization will also give its graduates a platform for mobility for professional jobs, registration, and professional licensure, etc. Through the achievement of this "Internationalization" pillar, the university will be able to level-up the following:

- Talent recruitment of students, faculty and staff and their retention
- Development of curriculum as per internationally recognized universities
- Link-up with the universities of OIC
- Creating an international environment for stakeholders
- Faculty exchange among universities of OIC member states

- Collaborative research
- Utilization of alumni strength residing around the globe including the 57 member states of OIC.

#### **4.9 Accreditation**

As an international university, all programs of IUT are to be accredited. The infrastructure of the university, financial sources, the curriculum of different programs, quality of students at the intake level, quality of the faculty members and staffs, laboratory facilities, teaching-learning process, evaluation of the teaching-learning process, health and safety-related issues, continuous quality assessment and improvement policy of the programs, link-up with the industries, link-up with the alumni, etc. are to be developed/monitored as per the basic requirement policy for accreditation by international, such as Accreditation Board for Engineering and Technology (ABET) and local accreditation authorities, such as Board of Accreditation for Engineering and Technical Education (BAETE). Accreditation is essential to enhance the quality of education in a holistic approach. Through the achievement of this “Accreditation” pillar, the university will be able to level-up the following:

- Continuously improve quality education
- Opportunity for students to transfer their earned credits to other universities
- Opportunity for the students for grants and loans for education
- Easy access to the job market as employers prefer accredited programmes
- Continuous quality improvement (CQI) of programmes

#### **4.10 Transforming from a Small-to a Medium-size University**

Currently, IUT is a small-size seat of higher learning. A target of this strategic plan is to transform IUT into a medium-size university by increasing the number of students taking from the OIC member states and Muslim students from other countries. Through the achievement of this “Transforming from a Small-to a Medium-size University” pillar, the university will be able to level-up the following:

- Create more graduates for socio-economic development of OIC member states
- Reduce overall cost per student of the university
- Increase the capacity of each programme
- Generate fund for research and other development works
- Improve the global rank of IUT.

#### 4.11 Enhancing Financial Strength

Through the achievement of the strategic pillar “Knowledge Transfer Partnership and Networking with Industries”, it will be possible to enhance links and collaboration with industries of OIC member states. The laboratory facilities will also be gradually improved through another strategic pillar, “**Research-oriented University**”. Moreover, through the strategic pillar, **Student-centered Learning**, it will be possible to make a strong faculty line-up. By utilizing these developments, it will be possible to enhance the testing and consultancy services of the university to boost up the financial strength of the university. Through the achievement of this “**Enhancing Financial Strength**”, the university will be able to level-up the following:

- Socio-economic development of the OIC countries
- Linkup with industries
- Professional activities of the faculty members
- Job opportunities for graduates
- Fund generation for research and development of IUT
- Lab development with modern tools
- Visibility of the university in the professional society

#### 4.12 Master Plan for Achieving the Strategic Pillars

##### **Student-Centered Learning**

The six-year plan for achieving a target of **Student-Centered Learning** is shown in **Fig. 4.1**. Within the first-two-year, a well-organized curriculum for each program will be developed based on the benchmark of some world-class accredited internationally recognized programs. The Course Objectives (CO), Program Outcomes (PO) and Program Educational Objectives (PEO) will be set and will be correlated with the vision and mission of the university. Faculty members will be trained accordingly to make them ready for Outcome-Based Education (OBE). A well-organized Industrial Advisory Panel (IAP) will be formed for each program. For creating job opportunities for fresh graduates, a Career Development and Placement Office (CDPO) will be formed. To make liaison with the alumni and industries as well as for organizing seminars, workshops, short-course, an Office of International Affairs (OIA) will be formed. To redress the grievance, a committee will be formed. A counselor will be appointed for supporting the students pertaining to academic and social matters.

From the third-year, CO, PO, and PEO attainment will be evaluated directly/indirectly. The indirect evaluation will be carried out based on the feedback from the stakeholders, such as students, faculties, alumni, and

2021	2022	2023	2024	2025	2026
A	A				
		B	B	B	B
		C	C	C	C
R	R	R	R	R	R

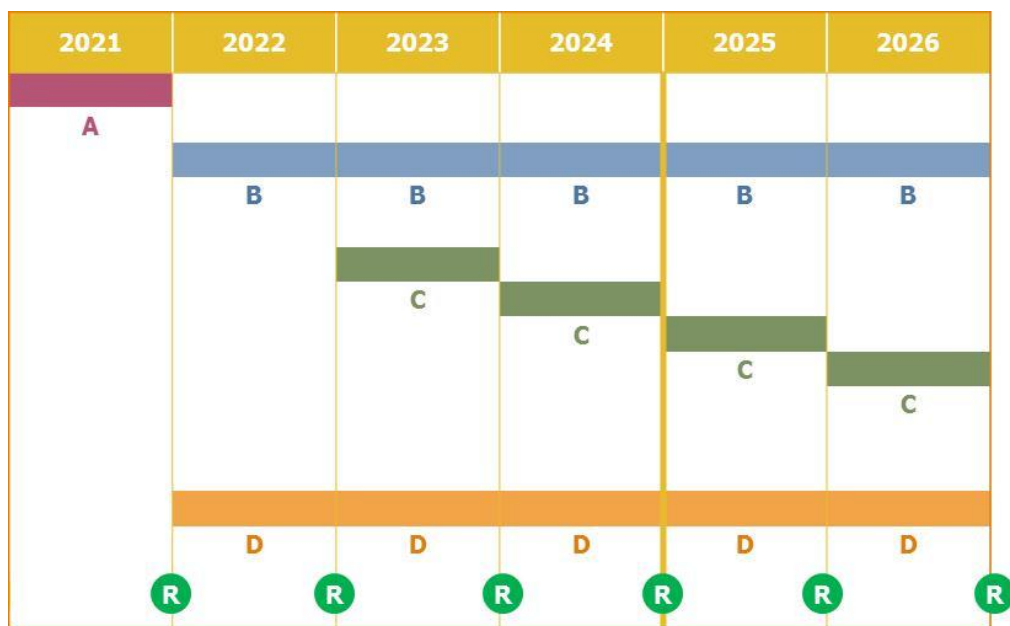
**Task R: Progress Report to Vice-Chancellor.**

## Research-Oriented University

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furnished with world-class equipment/software for in-depth research works based on the field of study of faculty members, the contribution of faculty members in research and publications, etc. The priorities will be given to the faculty members who have a significant contribution to research and publications. Seed money for research works will also be distributed among the faculty members. The faculty members will be encouraged to submit collaborative research proposals with industries/universities /professional bodies. Each of the programs will organize an international seminar/workshop in every alternative year. The faculty members will be rewarded for their outstanding research works as well as publications. At the end of each year, a report will be submitted to the Vice-Chancellor related to the progress of this strategic pillar.



- Task A:** Setup policy for faculty research, Setup KPI for faculty members, Incentives for outstanding publications
- Task B:** Development of one or two laboratories with world-class research equipment,
- Task C :** Awarding seed money to faculty members for research works.
- Task D:** Collaboration with Industries and Universities, Incentives for collaborative research grants, Organizing international seminars/workshop in association with universities/ professional bodies/ industries.
- Task R:** Progress Report to the Vice-Chancellor.

**Fig. 4.2** Plan for Research-Oriented University

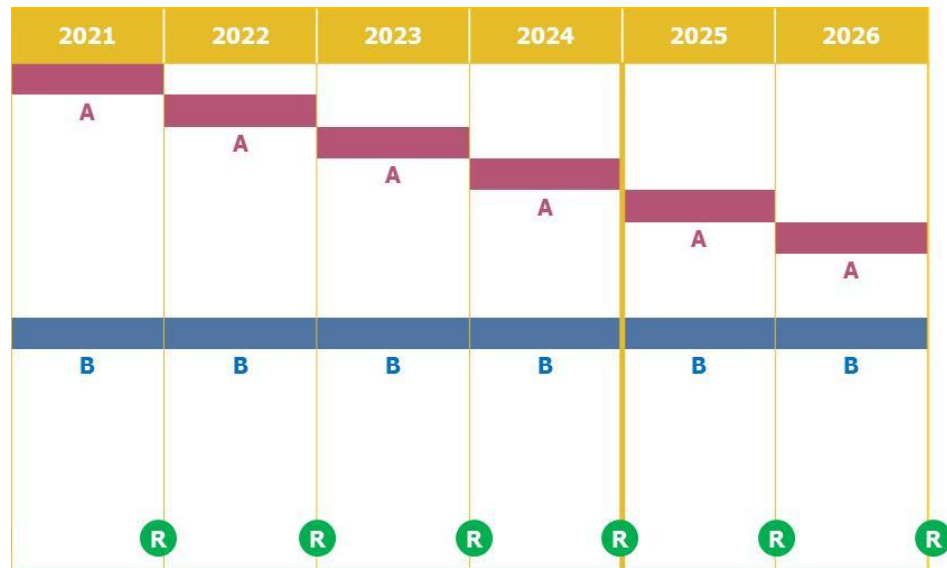
## Knowledge Transfer Partnership and Networking with Industries

The six-year strategic plan for achieving a target of **Knowledge Transfer Partnership and Networking with Industries** is shown in **Fig. 4.3**. Each of



the programs of IUT will organize an international seminar/workshop in the alternative year in association with other universities, industries, professional bodies. Also, as co-curricular activities, experts from industries will provide special lectures at the course level. As co-curricular activities, the faculty members will also be encouraged to organized study-tour related to their courses. Each of the programs will submit a report to the Vice-Chancellor at the end of each year regarding their achievement in organizing seminars/workshops and lectures by experts at course level.

IUT also needs to make close network with some industries closely associated with different programs. For example, Civil Engineering Program is closely associated with industries producing construction materials, consulting firms, etc. Each program of IUT needs to take initiatives to make research link with relevant industries.



**Task A:** Organizing seminar/workshop/short course in association with industries;  
Organizing curricular based lectures by the experts from industries.  
**Task B:** Collaborative research projects with industries.  
**Task R:** Progress Report to the Vice-Chancellor.

**Fig. 4.3** Plan for Knowledge Transfer Partnership and Networking with Industries

## Internationalization

The six-year strategic plan for achieving a target of **Internationalization** is shown in **Fig. 4.4**. A policy for recruiting internationally recognized faculty members and admission of more foreign students from the member states will

be formed in the first year of the strategic plan. The other continuous activity will cover, continuous recruitment for internationally reputed faculty members from the host country and OIC Member states, faculty exchange program and collaborative research with internationally reputed universities, liaison with 2/3 top-ranked universities of each of the OIC member states, circulation of information among the universities of the member states (email and post), etc. In addition to the above-mentioned activities, IUT needs to evaluate its position by comparing the quality of graduates, alumni, research output of the faculty members, collaborative research grants, etc. with other renowned universities.

At the end of each year, a report will be submitted to the Vice-Chancellor.

2021	2022	2023	2024	2025	2026
A					
	B	B	B	B	B
C	C	C	C	C	C
D	D	D	D	D	D
	R	R	R	R	R

**Task A:** Policy for recruiting and retention of internationally renowned faculties from host country and OIC Member States

**Task B:** Recruitment of internationally renowned faculties

**Task C:** Liaison with the universities of OIC Member states faculties, Faculty Exchange Program, Collaborative Research, Policy to attract more foreign students, Organizing seminars in association with OIC Member states, Circulation of IUT's information among universities in OIC Member states.

**Task D:** Benchmarking with renowned universities

**Task R:** Progress Report to the Vice-Chancellor.

**Fig. 4.4** Plan for Internationalization

## Accreditation

The six-year plan for achieving a target of **Accreditation** is shown in **Fig. 4.5**. All programs of IUT will prepare Self-Assessment-Report (SAR) and submit to the Board of Accreditation for Engineering and Technical Education (BAETE), Institution of Engineers, Bangladesh for accreditation from this local body. It is targeted that after two-year, all programs will be accredited by BAETE. After four years, all programs will be able to prepare the SAR for ABET accreditation. Therefore, it is targeted that after four years, all programs will submit SAR for ABET accreditation. At the end of each year, a report will be submitted to the Vice-Chancellor. All departments will prepare self-assessment report by 2021 and submit application for accreditation by locally recognized bodies, such as Board of Accreditation for Engineering and Technical Education (BAETE). The departments will start the process of accreditation by internationally recognized bodies, such as Accreditation Board for Engineering and Technology (ABET) from 2023.

2021	2022	2023	2024	2025	2026
A	A1	A2	A2	A2	A2
	B	B	B	B1	B1
	R	R	R	R	R

**Task A:** Preparation of SAR for a local accreditation body, such as BAETE

**Task A1:** Submission of SAR to a local accreditation body, such as BAETE

Task A2: Continue quality assurance policy of local accreditation bodies/BAETE

**Task B: Preparation/Review of Self Assessment Report for ABET.**

Task B1: Submission of SAR for accreditation by ABET

### Task R: Progress Report to the Vice-Chancellor:

**Fig. 4.5** Plan for Accreditation

## **Transforming from a Small-to a Medium-Size University**

The six-year plan for achieving a target of **Transforming from a Small-to a Medium-Size University** is shown in **Fig. 4.6**. Currently, its student population is about 2,800. It will be increased to 4,000 gradually. The plan for the gradual increase of the student population in different departments is shown in **Fig. 4.7**. The overall increase in population is shown in **Fig. 4.8**. From the Year 2021, a new section will be added with 50 students for CEE, CSE, and MPE programs. From the Year 2023, the major programs, such as EEE, CSE, MPE and CEE will run with 150 students (three sections of 50 students) per year. Three new academic programs will be opened with 50 students from 2022. Another new program will be opened with 50 students in 2024. These programs can be opened under the existing departments. Alternatively, the formation of one/two new departments can be planned based on the financial situation. The total number of students at the end of 2026 will become about 4,000, which is a reasonable size for a medium-sized university. With the increase of student population, there is a plan for increasing the number of students from OIC member states. A target has set to increase the foreign student population by 10% every year from the Year 2022. The number of foreign students in the Year 2026 will be 620, which is double in figure compared to the current student population. As the university will move toward a research-driven university, therefore, the number of post-graduate (PG) students will be increased gradually. The total number of PG students at the end of the Year 2027 will be 400. IUT started online/distance learning since March 2019 with the spread of Covid19 pandemic. Based on this experience, IUT can explore the scope for online/blended learning for some programs. Policy regarding the online/blended learning can be made by 2022 and some programs can be started from 2023.

2021	2022	2023	2024	2025	2026
A					
B	B	B	B		
				C	C
D	D				
		D1	D1	D1	D1
	R	R	R	R	R

**Task A:** Master plan for development of infrastructures for student population of 4000 (3000 Residential and 1000 Non-Residential).

**Task B:** Implementation of Master Plan (Construction of residential halls, residence for faculty members and staffs, recreation facilities for students/teachers/staffs, other infrastructures).

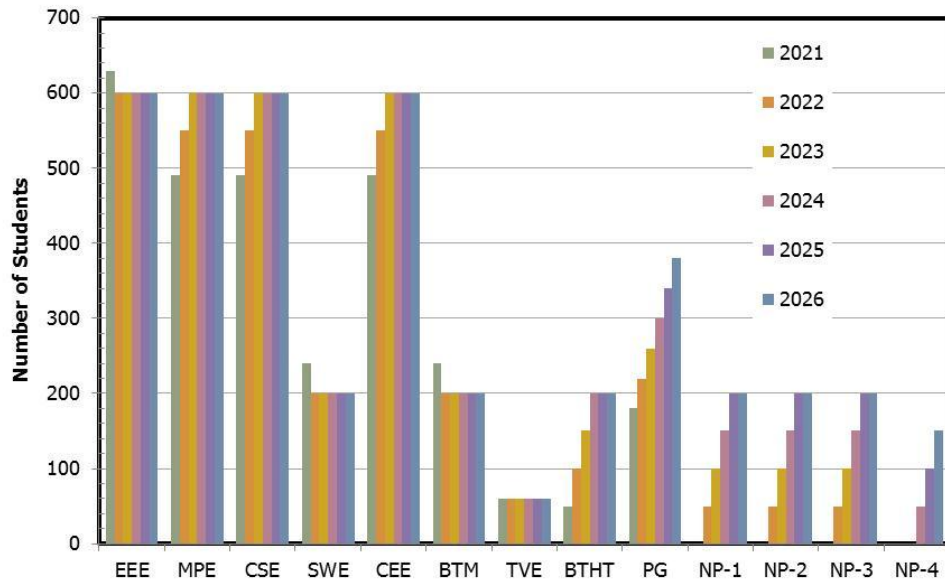
**Task C:** Minor construction works.

Task D: Policy for distance/blended learning

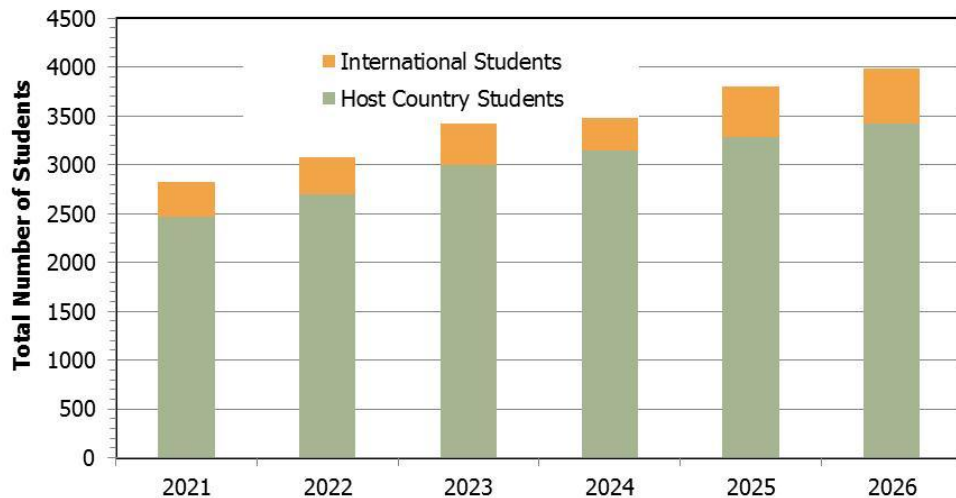
Task D1: Start program with distance/blended learning

**Task R:** Progress Report to the Vice-Chancellor.

**Fig. 4.6** Plan for Transforming from a Small-Sized to Medium-Sized University



**Fig. 4.7** Population of Students in Different Programs



**Fig. 4.8** Growth of Student Population

A master plan for improvement of lab facilities, construction of infrastructure, etc. will be made by 2021. A residential hall of a total floor area of 200,000 sft (for 1,500 male students) is to be constructed at an estimated cost of USD 8 million. Besides, a new academic building of a total 139,000 sft is to be constructed at an estimated cost of USD 6.0 million. Costs for other facilities will be estimated based on the master plan of the university that will be prepared by 2021. Possible alternative sources for funding and disbursement for implementation of the master plan are to be studied and finalized by 2021.

As the university will move to a paradigm shift from an academic university to a research-oriented university, the number of postgraduate students will be increased. It will be needed to open specific centers for research in different key areas.

### **Enhancing Financial Strengths**

The six-year strategic plan for achieving a target of **Enhancing Financial Strength** is shown in **Fig. 4.9**. In addition, to enhance financial strength through testing and consultancy services, a policy to motivate the faculty members for testing and consultancy services in the university will be made by 2021. The departments will prepare a brochure summarizing the list of equipment and services that can be provided to the industries. Departments will also circulate the information through the website as well as direct communication with the industries. Incentives will be given to the faculty members for their outstanding services related to testing and consultancy services. In addition to the testing and consultancies services, IUT needs to look for the possible sources of endowment fund to strengthen its financial strength for the development of infrastructures, laboratory facilities, etc. Alternatively, IUT may also look for soft loans from financial institutions, such as Islamic Development Bank (IDB) and others. A progress report related to the progress of this pillar will be submitted to the Vice-Chancellor by the end of each year.

2021	2022	2023	2024	2025	2026
A					
B	B	B	B	B	B
C	C	C	C	C	C
	R	R	R	R	R

**Task A:** Making Policy.

**Task B:** Making liaison with industries to promote testing and consultancy services.

**Task C:** Initiatives for Endowment Fund

**Task R:** Progress Report to the Vice-Chancellor.

**Fig. 4.9** Plan for Enhancing Financial Strength

### 4.13 Summary

Seven strategic pillars, such as (i) student-centered learning, (ii) research-oriented university, (iii) knowledge transfer partnership and networking with industries, (iv) internationalization, (v) accreditation, (vi) transforming from a small-sized to a medium-sized university, and (vii) enhancing financial strength. Through the implementation of these strategic pillars (i) IUT will be able to make itself a center of excellence for education and research, (ii) the graduates will be competitive with other renowned universities, (iii) the research publications of IUT will be visible globally, (iv) the rank of IUT will be improved, (v) IUT will become an international university with a strong curriculum, strong faculty line up, and strong lab facilities, (vi) the financial strength of IUT will be enhanced. The progress of strategic pillars is to be closely monitored by the Office of Accreditation and Quality Assurance (OAQA). For the implementation of this strategic plan, IUT will need financial support. A thorough study is needed to find the best financial option from the viewpoint of the economy.



## **5. EVALUATION AND MONITORING OF STRATEGIC PLAN 2021-2026**

### **5.1 Importance of Regular Evaluation and Monitoring**

The strategic plan has been proposed by conducting a comprehensive SWOT analysis and maintaining harmony among IUT's vision, mission, OIC STI Agenda 2026, The OIC – 2025: Programme of Actions, Charter of OIC, and the SDGs. However, to ensure that IUT is being able to put the strategic plan into action, regular evaluation and monitoring is a must. This section proposes a dynamic method of regular evaluation and monitoring of the strategic plan by connecting the steps with measures, targets, and initiatives. The ideas are based on mainly three works of literature: Kaplan and Norton (1996), Niven (2003), and Hoque et al. (2008).

### **5.2 Balanced Scorecard (BSC) Approach for Evaluating Non-Profit Organizations**

The Balanced Scorecard approach was introduced by Kaplan and Norton in 1996 and it soon gained popularity in the business world to be used as a framework for implementing its strategies. The motivation behind this approach was the realization that financial measures were no longer adequate for organizations seeking to create value through investments in customers, suppliers, employees, processes, technology, and innovation (Hoque et al., 2008). By considering four perspectives: financial dimension, internal business process dimension, learning and growth, and customer dimension, BSC provides answers to four basic questions for the management:

- How do customers see us? (customer perspective)
- What must we excel at? (internal business process)
- Can we continue to improve and create value? (learning and growth perspective)
- How do we look to stakeholders? (Financial perspective)

BSC puts a handful of strategically critical measures together in a single report (Hoque, 2003). It is to be noted that these four perspectives are not independent, rather, there exists a logical coherence among them, such as, learning and growth lead to better business processes, which makes the

organization more attractive to the customers leading to improved financial performance. Over the years, BSC gained popularity so rapidly that within just two years of its inauguration, 60% of the Fortune 1000 firms experimented with the BSC approach (Silk, 1998). Over the past two decades, initiatives have been taken to port the lessons learned through the BSC approach by the business organizations to non-profit organizations. In one of the early examples, Niven (2003) suggested that non-profit organizations are mission-oriented and therefore, the missions should be put at the top of BSC.

## **5.2 Implementing BSC in IUT**

Implementation of BSC in IUT is inspired by Hoque et al. (2008) which demonstrates how to apply BSC in a university to evaluate and monitor its long-term strategic plan in a balanced manner. The proposed framework is broadly divided into these steps:

Step 1: Define the mission of the university

Step 2: Fix the outcomes of the mission

Step 3: Define the four perspectives of BSC in the context of the university

Step 4: Map the strategic plans with the perspectives defined in Step 3

Step 5: Develop the BSC by mapping the four perspectives with their objectives, measures, targets, and initiatives to achieve those targets.

The following sub-sections elaborate on the concept followed by IUT's strategic master plan.

### **5.2.1 Mission of IUT**

IUT's mission is set as follows (Section 1.3):

- M1: Providing education and training of international standard for the youths of the Ummah;
- M2: Undertaking quality research leading to innovation;

- M3: Launching cutting-edge disciplines matching the requirements of the member states;
- M4: Internationalizing through increasing overseas students, staffs and external collaboration.

### **5.2.2 Outcomes of Mission**

Considering its international status and added responsibilities as compared to a local university in Bangladesh, the strategic plan divides the outcomes of the mission for IUT into three groups: for students, for the university, and the OIC. They are defined as follows:

For students: academic skills; analytical skills; character development to be able to serve in a diverse environment.

For IUT: increased enrollment maintaining a balance between local and international students; sound financial and resource growth; maintain Islamic environment; global and local reputation.

For OIC: graduates meeting the requirements of the member states; greater integration of the Islamic world into the global economy; global reputation.

These three sets of outcomes cover all four missions. At the same time, they are interlinked: increased enrollment and sound financial growth will depend on students' performance in the global job market and their contribution to the societies of the member states of the OIC.

### **5.2.3 Defined Four Perspectives of BSC for IUT**

Stakeholders' (Customer) Perspective (S): IUT's major stakeholders are the students, their guardians, OIC member states, the governing body, faculty members, and the administrative staff. Of them, the first three can be considered as customers. Students expect a vibrant and multi-cultural environment from IUT where they can learn new academic and analytic skills and hone their existing skills to be prepared for the job market and become a global citizen. As a substantial part of the students of IUT are self-financed, their guardians become a major stakeholder. Guardians expect that IUT will equip the graduates with the necessary skills to be successful in both professional and personal life and that should be achieved at a reasonable cost (here, tuition and other associated fees). IUT is heavily dependent on the donors as a substantial

proportion of its annual budget comes from the OIC member states. Therefore, IUT must ensure that it is contributing significantly in line with the OIC STI Agenda 2026, The OIC – 2025: Programme of Actions, Charter of OIC, and the SDGs.

**Financial Perspective (F):** The financial perspective has two dimensions – securing fund for continuous infrastructural development and day to day operation and maintenance related activities and ensuring optimization of the fund to best achieve the missions by improving cost structure through investing wisely and at the same by eliminating unnecessary expenses. Just like all other universities, the sources of funding for IUT are limited. The fund received from the OIC member states and the earnings from tuition fees so far have been the two major sources of income for IUT. As suggested in Section 4.10 and 4.11, IUT can increase its financial strength by transforming from a small to medium-size university. At the same time, IUT can linkup with industries, increase the professional activities of the faculty members, and generate funds for research and development.

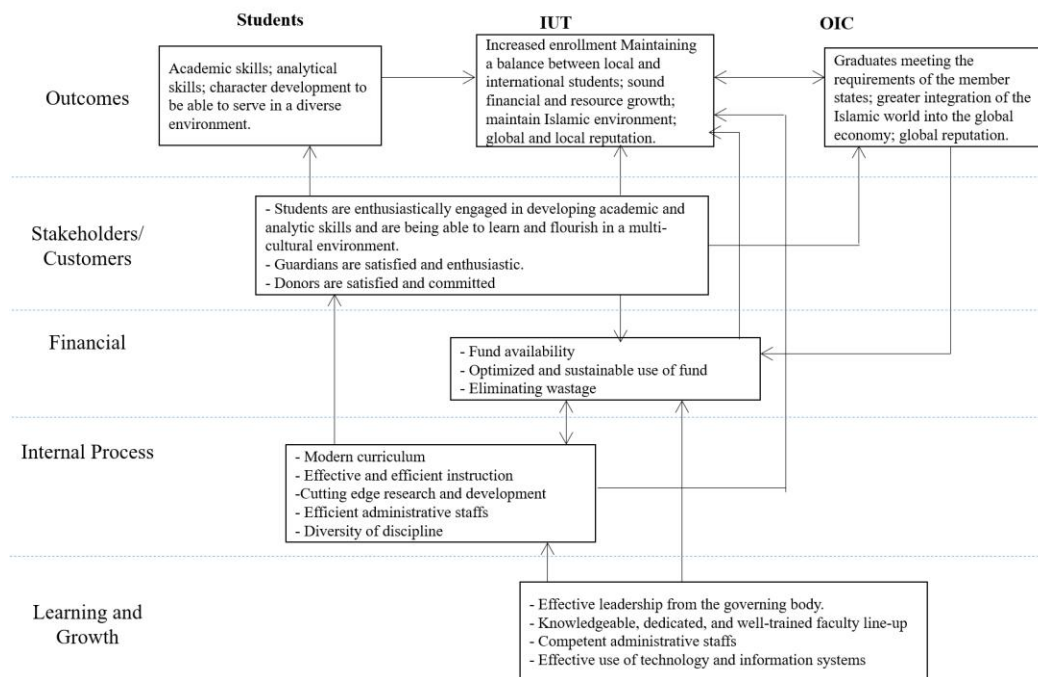
**Internal Process Perspective (I):** The internal process in BSC includes the product design process, product development, post-sale service, manufacturing efficiency, and quality. Translating that for a university, the internal process perspective will include modernizing the curriculum and effectively delivering teaching to produce quality global graduates. The programs should follow strict schedules and alumni databases should be maintained to assess the fulfillment of program educational objectives. At the same time, effective marketing should be conducted to enrol an excellent pool of international and local students on regular basis. The administrative offices will play an important role in the maintaining efficiency of the internal processes. The governing body needs to keep their eyes open on the possibility of introducing the diversity of discipline remaining in line with the demand of the OIC member states. Apart from that, the effort is required to create an environment fostering cutting-edge research in the field of science and technology.

**Learning and Growth (L):** Faculty members are the heart of a university as they are directly responsible for providing instructions to the students as well as curriculum development and conducting research. Therefore, it is imperative to ensure that high-quality faculty members with excellent international exposure and teaching and research experience are recruited. At the same time, there should be programs to groom the locally recruited faculty members. It should be ensured that the faculty line-up is knowledgeable, dedicated, and able enough to

satisfy the needs of the students. Apart from training the faculty members, the administrative officers should be trained regularly to increase their knowledge and skills and uplift their level of enthusiasm. Apart from that, the governing body should provide excellent leadership. It is their responsibility to ensure that the faculty members, staff, and students are being steered in the right direction to achieve the missions of the university. They should ensure that the faculty members and staffs have job satisfaction and students are happy with the environment. Apart from that, the proper use of information technology is imperative for learning and growth.

#### 5.2.4 Strategic Map for IUT

Considering IUT's Vision, Mission, Outcomes, OIC STI Agenda 2026, The OIC – 2025: Programme of Actions, Charter of OIC, the SDGs, and the newly defined perspectives of BSC, the proposed strategy plan for IUT is shown in **Fig. 5.1**.



**Fig. 5.1** Strategic Map for IUT

### 5.2.5 The BSC for IUT

Combining the proposed strategic map with the outcomes of the SWOT analysis and the strategic plans proposed in Section 4, the BSC for IUT is summarized in **Table 5-1**.

**Table 5-1** Balanced Scorecard (BSC) for IUT

Perspectives	Strategic goals*	Strategic measures*	Targets	Initiatives
Stakeholders' (Customer) Perspective	<ul style="list-style-type: none"> <li>- Students are enthusiastically engaged in developing academic and analytic skills and are being able to learn and flourish in a multi-cultural environment.</li> <li>- Guardians are satisfied and enthusiastic.</li> <li>- Donors are satisfied and committed</li> </ul>	<ul style="list-style-type: none"> <li>- Performance in OBE based accreditation of programs</li> <li>- Change is no. and size of research funds</li> <li>- Change in no. of donors and size of the donation</li> <li>- Increased ranking (locally and globally)</li> </ul>	<ul style="list-style-type: none"> <li>- Get all programs accredited from recognized international and national bodies</li> <li>- Seek for new funds as donations or as research funds</li> <li>- Get IUT enlisted for ranking and ensure decent outcomes</li> </ul>	SP1, SP2, SP3, SP4, SP5
Financial Perspective	<ul style="list-style-type: none"> <li>- Fund availability</li> <li>- Optimized and sustainable use of fund</li> <li>- Eliminating wastage</li> </ul>	<ul style="list-style-type: none"> <li>- Change in the fund from different sources (donation, tuition fees, research, and development fund, earnings by providing professional</li> </ul>	<ul style="list-style-type: none"> <li>- Transform IUT into a medium-size university without compromising the quality of education and research</li> <li>- Increase fund from research and development</li> </ul>	SP6, SP7

Perspectives	Strategic goals*	Strategic measures*	Targets	Initiatives
		services, etc.) - Degree of reliance on outside donations for operating costs - Cost reduction without maintaining service quality - Variance between plan and actual - Account balance at the end of the fiscal year	as well as by providing professional services - Maintain variation between plan and actual within a pre-determined limit. - Increase fund balance and reduce unnecessary expenses every year	
Internal Process Perspective	- Modern curriculum - Effective and efficient instruction - Cutting edge research and development - Efficient administrative staffs - Diversity of discipline	- Performance in OBE based accreditation of programs - Performance evaluation of faculty members and staffs - Quality, quantity, and diversity of enrolled students - Adherence to budget and	- Get all programs accredited from recognized international and national bodies - Internationalize the IUT community - Optimum allocation of administrative and infrastructural resources	SP1, SP2, SP4

Perspectives	Strategic goals*	Strategic measures*	Targets	Initiatives
		<p>schedule</p> <ul style="list-style-type: none"> <li>- Inspection report by the governing body</li> </ul>		
Learning and Growth	<ul style="list-style-type: none"> <li>- Effective leadership from the governing body.</li> <li>- Knowledgeable, dedicated, and well-trained faculty line-up</li> <li>- Competent administrative staffs</li> <li>- Effective use of technology and information systems</li> </ul>	<ul style="list-style-type: none"> <li>- Academic degrees and training received by the faculty members</li> <li>- No. and size of research funds</li> <li>- Publications, patents along with their quality</li> <li>- Feedback from faculty members, administrative staffs and students regarding availability and use of technology and information systems</li> <li>- Feedback from alumni and industry</li> </ul>	<ul style="list-style-type: none"> <li>- Governing body has the leadership ability to steer the university in the right direction</li> <li>- Faculty members use technology and information systems effectively for teaching</li> <li>- Faculty members are involved in research, publication, contribute to society and professional services</li> <li>- Administrative staffs use technology and information systems effectively for making their service efficient</li> </ul>	SP4, SP2, SP1

\* selected ones only



The governing board may evaluate and monitor the implementation performance of the strategic plan on regular basis independently as well as by forming various committees. A report should be provided by the governing body every year to identify to what extent the strategic plan is being implanted, the major hindrances, etc. and make amendments to the targets and initiatives as necessary.

### 5.3 Summary

Seven strategic pillars, such as (i) student-centered learning, (ii) research-oriented university, (iii) knowledge transfer partnership and networking with industries, (iv) internationalization, (v) accreditation, (vi) transforming from a small-sized to a medium-sized university, and (vii) enhancing financial strength were selected to make IUT as *a Center of Excellence* for "*Creating Global Citizens with Islamic Values*". Through the implementation of these strategic pillars

- (i) IUT will be able to make itself a center of excellence for education and research,
- (ii) The graduates will be competitive with other renowned universities,
- (iii) The research publications of IUT will be visible globally,
- (iv) The rank of IUT will be improved,
- (v) IUT will become an international university with a strong curriculum, strong faculty line up, and state-of-the-art lab facilities,
- (vi) The financial strength of IUT will be enhanced.

The progress of strategic pillars is to be closely monitored by the Office of Accreditation and Quality Education (OAQA). For the implementation of this strategic plan, IUT will need financial support. A thorough study is needed to find the best financial option from the viewpoint of the economy.

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