

STRATEGIC PLAN

(A.Y: 2022-23 to 2026-27)

HALDIA INSTITUTE OF TECHNOLOGY

Profile of the Institute

Haldia Institute of Technology (HIT), established in 1996, is an engineering college for higher education in India, located in Haldia, Purba Medinipur District of West Bengal, India.. The Institute is an Autonomous Institution, affiliated to Maulana Abul Kalam Azad University of Technology (MAKAUT) West Bengal. The institution is approved by the All India Council for Technical Education (AICTE), New Delhi, all eligible programs are accredited by the National Board of Accreditation (NBA) and the Institute is also accredited by National Assessment and Accreditation Council (NAAC) with 'A' Grade having 3.31 CGPA. The Institute is further certified under ISO 9001:2015. The founder of the Institute, Dr. Lakshman Chandra Seth, D. Litt., Former MP, who is an influential philanthropist and Social reformer in Purba Medinipur District of West Bengal. Haldia Institute of Technology was the first private initiated technical education institution in West Bengal. In the past two and half decades, the institute has produced prominent engineers,

The Institute is located at the heart of industrial city Haldia, a major Indian port and nerve centre of industrial and trade activities in and around Eastern India. Approximately 125 km from Kolkata and in close proximity to NH-41; Haldia Institute of Technology is strategically located at the heart of the port city Haldia –one of the busiest industrial hub of Eastern India. The Engineering and Management Institute may simply be described as an “Institute of Amidst Industries”. The Institute is well connected to Kolkata and Kharagpur by Railways and National Highways.

Institute at a glance:

- The Institute has been conferred upon AUTONOMOUS STATUS by the UGC for the period of 10 (ten) years from 2019-2020 to 2028-2029, vide Memo No. F.22-1/2017(AC) dated 05-08-2019, and subsequently Order has been issued by the Affiliating University, Maulana Abul Kalam Azad University of Technology (MAKAUT), West Bengal.
- The Undergraduate programs in AEIE, BT, CHE, CE, CSE, ECE, EE, FT, IT and ME of the Institute are accredited by National Board of Accreditation (NBA).
- The Institute is accredited by NAAC from 16.09.2016 with 'A' Grade [CGPA-3.31 out of 4].
- The Institute was selected as the “Mentor Institute” for the Institutions which are near to our geographic vicinity by the NAAC as intimated vide Letter dated 10.09.2018, bearing F. No. 13-20/DS/2018.
- The Institute has been selected and recognized as the ‘Host Institute’ for implementation of the scheme "Support for Entrepreneurial and Managerial Development of MSMEs through Incubator“.
- The Institute is ISO certified for “Quality Management System” and “Environment Management System”.
- The Institute ranked 163 by NIRF (National Institute Ranking Framework) Ranking, 2020.
- The Institute has been selected by AICTE for developing AICTE-Institute sponsored “**AICTE-IDEA lab**” for applications of science/technology/engineering towards product visualization.

PROGRAMS OFFERED BY HALDIA INSTITUTE OF TECHNOLOGY

UNDER GRADUATE & POST GRADUATE PROGRAMS

Sl. No.	Courses being offered	Intake capacity per year
1	B.Tech. in Chemical Engineering	120
2	B.Tech. in Computer Science and Engineering	180
3	B.Tech. in Applied Electronics and Instrumentation Engineering	60
4	B.Tech. in Electronics and Communication Engineering	180
5	B.Tech. in Mechanical Engineering	120
6	B.Tech. in Electrical Engineering	120
7	B.Tech. in Biotechnology	60
8	B.Tech. in Information Technology	180
9	B.Tech. in Civil Engineering	120
10	B.Tech. in Food Technology	60
11	B.Tech. in Computer Science and Engineering (Artificial Intelligence and Machine Learning)	60
12	B.Tech. in Computer Science and Engineering (Data Science)	60
13	B.Tech. in Computer Science and Engineering (Cyber Security)	60
14	M.Tech. in Chemical Engineering	9
15	M.Tech. in Computer Science and Engineering	12
16	M.Tech. in Electronics and Communication Engineering	12
17	M.Tech. in Mechanical Engineering	18
18	M.Tech. in Biotechnology	9
19	MBA (Masters of Business Administration)	60
20	MCA (Masters in Computer Applications)	60
	TOTAL ANNUL INTAKE	1644

PROPOSED PLANNING FOR INTRODUCTION OF NEW PROGRAM AND/OR ENHANCEMENT OF INTAKE CAPACITY.

The Institute is situated in the Industrial hub, surrounded by various giant and small scale industries, like, Chemical, Biotechnology, Food & Beverages, Mechanical, Instrumentation, Power Stations, Fertilizer and other various Allied industries.

As per need of the industries, the Institute has introduced and conducting various programs in Core Engineering, like Mechanical, Civil, Electrical, Applied Electronics and Instrumentation Engineering, Electronics & Communication Engineering, Chemical Engineering, Biotechnology, Food Technology etc. Besides, the Institute also conducts various IT and Computer related programs in Emerging areas, like, Computer Science and Engineering, Information Technology, Artificial Intelligence and Machine Learning, Data Science, Cyber Security etc.

Now, various other industries are established later on, and furthermore, various giant industries are proposed to be set up shortly in and around Haldia. Considering the future needs, the Institute is proposed to introduce demand driven UG/PG programs in near future, like, Architecture, Fire & Safety, Power Systems, Structural Engineering and so on. Besides, in the era of digitization althrough in national and international level, various Software industries will require more qualified and trained manpower. In respect to that, the Institute will enhance the intake capacity of existing IT & Computer related programs as well as introduce various programs in emerging in multil-disciplinary areas.

Vision: To achieve Centre of Excellence in the field of Science, Technology and Management Education for creating dynamic human resources of global standards with capabilities of accepting new challenges.

Missions

- **To impart quality and value based education to raise satisfaction level of all stake-holders.**
- **To create competent, creative professionals, and great entrepreneurs who can work as individual or in group in multi-cultural global environments**
- **To prepare citizens who would grow to be competent enough to contribute significantly with personal integrity and civic responsibility for the betterment of mankind throughout their careers and profession.**

The business across the globe in the 21st Century is undergoing unprecedented changes and intense competition - thanks to radical socio-economic changes and mushrooming growth of ICT based systems. The fields of STEM (Science, Technology, Engineering, and Mathematics) together with Scientific Management are playing the pivotal role in shaping the economy of the country through rapid transformation in industrial and business sectors. The incumbents therefore, ought to equip and groom themselves by inculcating sound knowledge base in the aforesaid areas coupled with contemporary skills and other human faculties so as to emerge as potential performer in the complex and challenging global business environment. Inspired by the Indian traditional knowledge systems, this philosophy is reflected in the NEP 2020 so that budding professionals can have holistic development to confront the emerging business challenges dynamically by manifesting the essence of Outcome based Education (OBE) for development of the economy and nation building. This dynamic human resources can be utilized globally for accepting new challenges.

While formulating these statements, the opinion from different stake holders such as academicians and representatives from the industries besides others, were sought and critically studied. Majority of the students are expected to join industries immediately after graduation as reflected through the Program Educational Objectives (PEOs) of different programmes. The expectations and the feedback from the industry people therefore, play very crucial role in framing the objectives. The industry in the current situations look for the dynamic young people having strong knowledge foundation (domain as well as multidisciplinary), hands on expertise in modern tool usages, and of course, open-mind towards learning and adaptation to the changing circumstances with utmost regards to the prevailing laws and regulation.

Quality Accreditations & Recognitions

Accreditations: NAAC

Sl. No.	Certificate No.	Date of Issue	Accredited Grade	Institutional Score	Valid From	Valid Upto	Year
1	NAAC/WH/Cert-A&A/EC (17th SC)/75.2/2016 & NAAC/DO/BSP/A&A-RAF-AU/2022/	23.11.2016 & 04.05.2022	A	CGPA = 3310/1000 = 3.31, Grade : A	16.06.2021	31.12.2025	2022

Accreditations: NBA

Sl. No.	Letter No.	Date of Issue	Name of the Programme (s)	Accredited Status	Period of validity w.e.f./ Academic Year	Valid Upto	Period of Year
1	File No. 36-20-2010-NBA	06.03.2020	UG-CHE	Accredited, Tier-II	2020-2021 to 2022-2023	30.06.2023	3
2	File No. 36-20-2010-NBA	06.03.2020	UG-CSE	Accredited, Tier-II	2020-2021 to 2022-2023	30.06.2023	3
3	File No. 36-20-2010-NBA	06.03.2020	UG-ME	Accredited, Tier-II	2020-2021 to 2022-2023	30.06.2023	3
4	File No. 36-20-2010-NBA	06.03.2020	UG-BT	Accredited, Tier-II	2020-2021 to 2022-2023	30.06.2023	3
5	File No. 36-20-2010-NBA	09.06.2020	UG-CE	Accredited, Tier-II	2020-2021 to 2022-2023	30.06.2023	3
6	File No. 36-20-2010-NBA	09.06.2020	UG-IT	Accredited, Tier-II	2020-2021 to 2022-2023	30.06.2023	3
7	File No. 36-20-2010-NBA	09.06.2020	UG-FT	Accredited, Tier-II	2020-2021 to 2022-2023	30.06.2023	3
8	F. No. 36-20-2010-NBA	25.08.2022	EE-UG	Accredited, Tier-II	2022-2023 to 2024-2025	30.06.2025	3
9	F. No. 36-20-2010-NBA	25.08.2022	ECE-UG	Accredited, Tier-II	2022-2023 to 2024-2025	30.06.2025	3
10	F. No. 36-20-2010-NBA	25.08.2022	AEIE-UG	Accredited, Tier-II	2022-2023 to 2024-2025	30.06.2025	3

UGC Recognitions

- AUTONOMOUS STATUS:** The Institute has been conferred upon autonomous status by the UGC for the period of 10 (ten) years from 2019-2010 to 2028-2029, vide Memo no: F.22-1/2017(AC) dated 05-08-2019 and subsequently order has been issued by the Affiliating University, Maulana Abul Kalam Azad University of Technology (MAKAUT) West Bengal.
- Inclusion under 2(f) on 14.09.2004 and 12(B) on 27.07.2011.

1.2 Why Strategic Plan?



During the past decade, engineering and management education has undergone immense changes. It is essential in this dynamic environment to determine the strategic objectives and quantifiable targets, measuring the performances of the predetermined indicators, and monitor & evaluate the strategic plan. It is a participative approach that enables the institute to prioritize the resources in accordance with the objectives mentioned in the strategic plan. The plan is aligned with the institute's Vision, Mission, and Goals and poised to satisfy the interests of the stakeholders and the society in large.

Strategic plan is an important document for achieving the institution Long-term goal.

- The plan provides a framework for effectiveness and sense of direction
- It outlines the goals and measurable targets
- It is useful for guiding day-to-day actions
- It helps in evaluating progress and changing approaches when moving forward

It is an iterative process at both the stages, i.e., while formulating and during implementation as shown in Figure 1.



Figure 1. Strategic plan cycle

The plan is developed to establish deep roots that provide firm foundation for the constant up-gradation of the institution, as well as to energize the drive of experimentation and innovation, keeping the focus on Institution vision and mission. The strategic plan sets out a framework of priorities for the Institution.

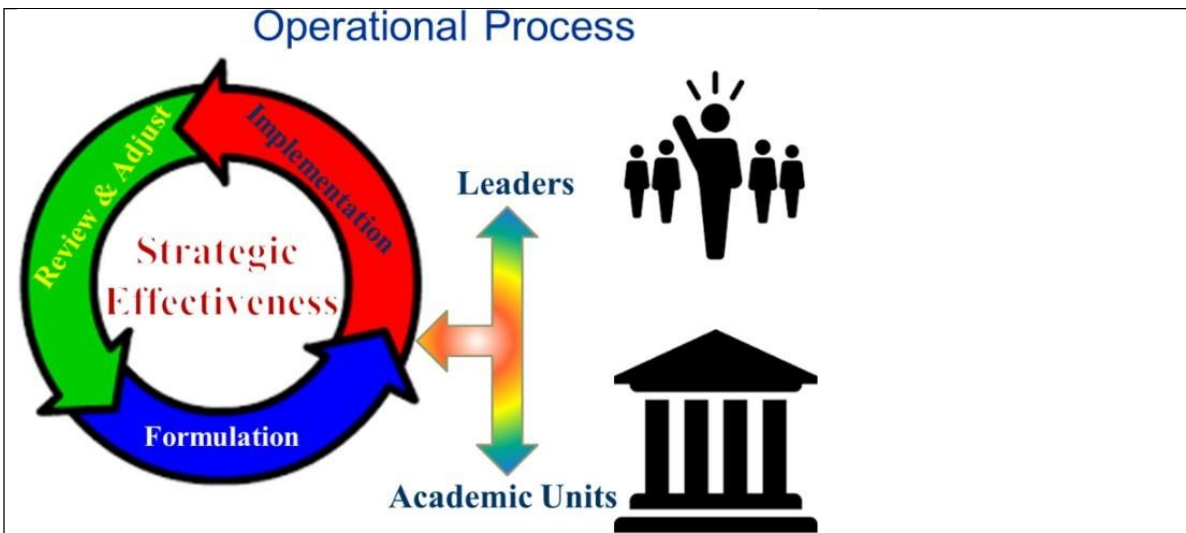


Figure 2: The effective strategic plan process

The first step in the implementation process is the evaluation of the strategic plan. The plan must be reviewed carefully, and any elements of the plan that might be especially challenging must be highlighted, e.g., any part of the plan that might be unrealistic or incurring excessive time and cost.

Deployment of teams, with assigned team leaders, is necessary to implement the plan. Monitoring of progress with a close watch on the collective efforts and timelines will lead the team towards the accomplishments. At the same time, fine-tuning may be applied to the strategy, if required.

Stake Holders' Expectations

Management	<ul style="list-style-type: none">• Global Brand• Sustainability• Good Governance• University Status• Social Responsibility
Leadership Team	<ul style="list-style-type: none">• NIRF ranking with in top 100 in India• Competent Faculty• Internal Revenue growth for sustainability• Industry oriented /continuing education programmes• Bench marking through Accreditation of programs and institution• Creation of Centers of excellence
Faculty & Staff	<ul style="list-style-type: none">• Good academic & working ambience• Career growth, Research facilities & incentives• Academic independence with accountability• Transparency and uniform processes
Students	<ul style="list-style-type: none">• Good academic & research ambience• Support for co-curricular & Extracurricular activities• State of the art infrastructure• Experiential learning & Opportunity for talent exposure• International learning at affordable cost• Quality Placement, career guidance and entrepreneurial opportunities
Parents	<ul style="list-style-type: none">• Branding• Quality teaching- learning• Disciplined students• Good placements opportunities
Industry	<ul style="list-style-type: none">• Industry ready professionals with proper attitude• Strong fundamentals• Strong Industry-Institution interaction• Collaborative research, consultancy• Brand and accreditations of the institute
Society & Others	<ul style="list-style-type: none">• Graduates with Moral, Ethical and Responsible citizenship• Social service activities by the institution• Skill development for needy and local people• Resource center for other institutions, Consultancy and Continuing education Programs

Competitive Analysis and Benchmarking

Benchmarking

It is the continuous action of comparing a process, a product or a service with a similar activity or quality standards, known as being the best in that field, with the purpose of establishing ambitious, but real improvement objectives and actions so as to emerge as a front-runner organization and strive for continuous improvement.



SWOC Analysis

This exercise provides insights into our strengths and weaknesses.

The more commonly used practice in strategic planning is to do SWOT analysis. However, for the educational institutions, Threat is to be considered as Challenge, and hence SWOC analysis stands for: Strengths, Weaknesses, Opportunities and Challenges. It is a simple analysis system designed to check the strategic position of a particular organization in its field of operation, and because of its methodological simplicity.

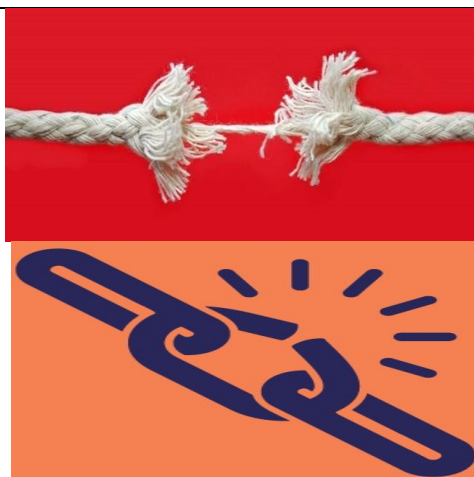
Strengths

- Situated in Industrial Hub.
- Good Brand
- Committed Visionary Management
- Autonomous
- Best young and dynamic Faculty
- Decades of Expertise
- Good Placement
- Good Campus & Infrastructure
- Strong Alumni network.
- Urban location with good ambience for studies Open spaces in campus supplement to elevate the grandeur of the environment and provide calm, peaceful and conducive atmosphere for academic pursuit



Weaknesses

- Geographical disadvantage to attract students.
- Student's intake from poor socio-economic background with low entry level scores and poor language competence
- Located far away from capital city
- Less IPR and Patents



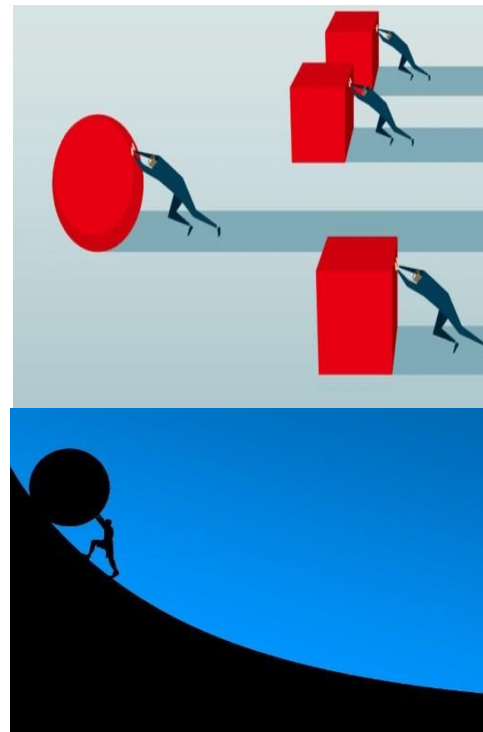
Opportunities

- New courses in Engineering
- Continual education with industries
- Innovative learning and teaching
- Global Initiatives
- Use of latest technology (ICT)
- Collaborative Research & Development activities with industries
- Developing centers of excellence.
- Consultancy opportunities
- To develop research centers in every department and get more research grants
- Deemed University status.



Challenges

- New emerging technologies
- Training 'Generation Z' for 'Industry 4.0'
- Competition-Admission of Quality Students
- Faculty retention.
- Continuation of Industry Recession
- Too many private Universities getting started
- To get adequate number of full-time PhD students for enhancing research outcomes. To maintain the higher teachers cadre ratio due to scarcity of competent Ph.D. holders
- Rapid changes and expectations from industry and the society
- Impediment in generating funds from tuition fees.



Strategic Goals

Considering the Vision, Mission, Quality policy, Core values, and SWOC analysis, following strategic goals were finalized to improve the quality and quantity of education, research, holistic development of students, engagement with industry and alumni, and enhance the student experience.



Strategies, Targets and Implementation Plan

- **Effective teaching and learning process**
- **Student and faculty development and participation**
- **Accreditation from statutory bodies**
- **Internal Quality Assurance System**
- **Research & Development, Entrepreneurship, Incubation centers and startups**
- **Introduction of New Programmes and Increase in Intake in emerging and multi-disciplinary areas.**
- **Achieving the status of Deemed University.**
- **Enhancing Industrial and Alumni Interaction**
- **Augmentation of Physical infrastructure and facility**
- **Strengthening Placement and Training.**
- **More involvement in Social engagement and Community Services**

Strategic Planning and Deployment

Strategic Plan	Deployment
Effective teaching and learning process	<ul style="list-style-type: none"> • Adopting innovative teaching methods • Content delivery- traditional teaching methods be supplemented with lecture management through digital platform methods (e-content / assignments/ PPT etc.) • Encouraging e-learning • Developing Interactive learning by using videos, presentations, software and labs • Implementing Project based learning • Regular feedbacks from the students • Enhancing overall personality and confidence of student Providing career and personal mentoring and counselling to students • Continuous assessment by the multiple layers of hierarchy • Establishing virtual labs and latest technology trends in department • Additional content on Institute's E-learning Portal and encouragement of MOOCs and NPTEL
Student and faculty development and participation	<ul style="list-style-type: none"> • Training sessions and Guest lectures on confidence building, motivation and life skills for students and faculties • Formation of departmental academic committee and Board of Studies (BOS) • Organizing various academic events for encouraging participation by students and faculties • Rewarding the best performers and achievers in academics and in co-curricular activities. • Developing facilities for recreation • Strengthening Research and Innovation cell
Accreditation from statutory bodies	<ul style="list-style-type: none"> • Formulation of plans by top management and IQAC committee • Resource and funds planning • Constituting committees • Creating Institutional and departmental data and continuous updating of the same • Verification and Validation of the available data and updating the same • NBA and NAAC accreditation with respectable grade • Better performance in NIRF Ranking.

Internal Quality Assurance System	<ul style="list-style-type: none"> • Reviewing and updating IQAC plans and policy • Regular evaluation of IQAC activities with respect to NBA & NAAC standards • Developing effective IQAC initiatives for the quality improvement of the institute • Initiating quality related suggestions from staff, faculties, students, alumni, employers and management • Identifying the changing trends in the global education sector and implementing the required
Research and Development Work, Entrepreneurship, Incubation centers, and startups	<ul style="list-style-type: none"> • Funds raising projects and proposals for the research work • Apply for various governmental schemes for funds and grants • Strengthening Research and Development cell • Conducting seminars/conferences on recent and upcoming trends and technology • Providing effective and updated Research facilities • Identifying and listing various schemes and policies of the government and educational bodies. • Emphasis on Idea incubation and product development
Introduction of New Programmes and Increase in Intake	<ul style="list-style-type: none"> • Identifying emerging technological areas to cater to the needs of today's industries which are promising and Multi-disciplinary in nature. • Enhancing bandwidth of youth towards engineering and technology. • Increase in intake in preferred branches for optimal finance and infrastructure involvements. • Enhancement of employment opportunities in diverse field.
Achieving the University status	<ul style="list-style-type: none"> • Implementation of more academic flexibility beyond Autonomous status. • Securing of more funds for research, incubation facilities from industries, Govt. organizations. • Establishing strong and permanent engagements with premier Institutes/Industries from national and international level. • More diversified and flexible UG /PG courses in emerging and multi-disciplinary areas of science and technology.

Social engagement and Community service	<ul style="list-style-type: none"> Analyzing the social and community requirements in the surrounding rural areas Resource and funds mobilization for the social and community activity Promoting educational awareness Initiating the NSS and departments to design and organize community development drives and events Encouraging students to participate in social and community activities Organizing various social activities in college
Industrial and Alumni Interaction Alumni is one of the key stakeholders of the institute. The feedback received from the alumni is vital for the progression and growth of the Institute. Institute has Alumni committee in place to manage alumni interactions.	<ul style="list-style-type: none"> Dedicated faculties and organized activities for alumni interaction building Establishing dedicated Alumni cell Generating and maintain the database of all alumni and industrial contacts Recognition of successful alumni Engaging faculties and students with alumni and experienced industrial persons by inviting them for guest sessions Focusing on developing professional relations, generating sponsorships and signing MoUs with the industries Supports for internships, visits, training and guest
	seminars <ul style="list-style-type: none"> To start alumni chapters in prominent places where most of our alumni are employed or doing business To create an eco-system for alumni to give back to the Institution in cash or kind Increase social media presence of NEC in Facebook, LinkedIn
Augmentation of Physical infrastructure and facility	<ul style="list-style-type: none"> Enhancing the classrooms and laboratories Planning and analyzing the requirement of facilities Establishment of e-learning and virtual labs Establishing various cells for dedicated purpose Enhancing basic amenities of the college Up gradation of departments and library Improving safety and security management Adopting efficient and economical sources for power, water and waste management Dedicated staff for infrastructure maintenance and regular audit of the facilities

Placements, Internships & Career Guidance	<ul style="list-style-type: none"> ▪ Supports for internships, visits, training, guest seminars, Carrier guidance Dedicated team ▪ Modernization of infrastructure (interview & conference rooms) ▪ Video recording of mock up interviews of students and feedback ▪ Awareness programmes ▪ Company specific training programmes
Entrepreneurship and Incubation	<ul style="list-style-type: none"> • Establishment of dedicated EDP cell • Identification of emerging areas of entrepreneurship • To identify students who are possessing entrepreneurial interests • To organize special awareness and training for students in developing the requisite skill set for entrepreneurship with the participation of successful entrepreneurs • To arrange for interactions of students with Angel investors and other financial entities for prospective funding for their ideas • Gap year concept • To establish incubation centers in specialized areas of Engineering • To encourage students and faculty to establish research and development start-ups on campus

The Strategic Development Plan (SDP) is an outcome of management commitment and detailed road map to its accomplishments to fulfil the interests of all the stake holders. The institutional strategic goals with detailed implementation plan is to ensure success and sustainability over a period of time. The execution and operational implementation is monitored by stringent evaluation standards and speaks the quality of the strategy itself. The strategy is not a static document but dynamic due to continuous changing environment and it is an ongoing process to evolve as per the necessity.

The strategic plan is an effort to sketch down a pathway for the development and accomplishing the goals of the institute. The framework is designed for conveying the goals of the institute for upcoming years. The proper implementation of the plan together with regular evaluation ought to be carried out through team work to harmonize the endeavors from all leading to the success and sustainability over the time.

Indranil Chowdhury

Principal
HALDIA INSTITUTE OF TECHNOLOGY

