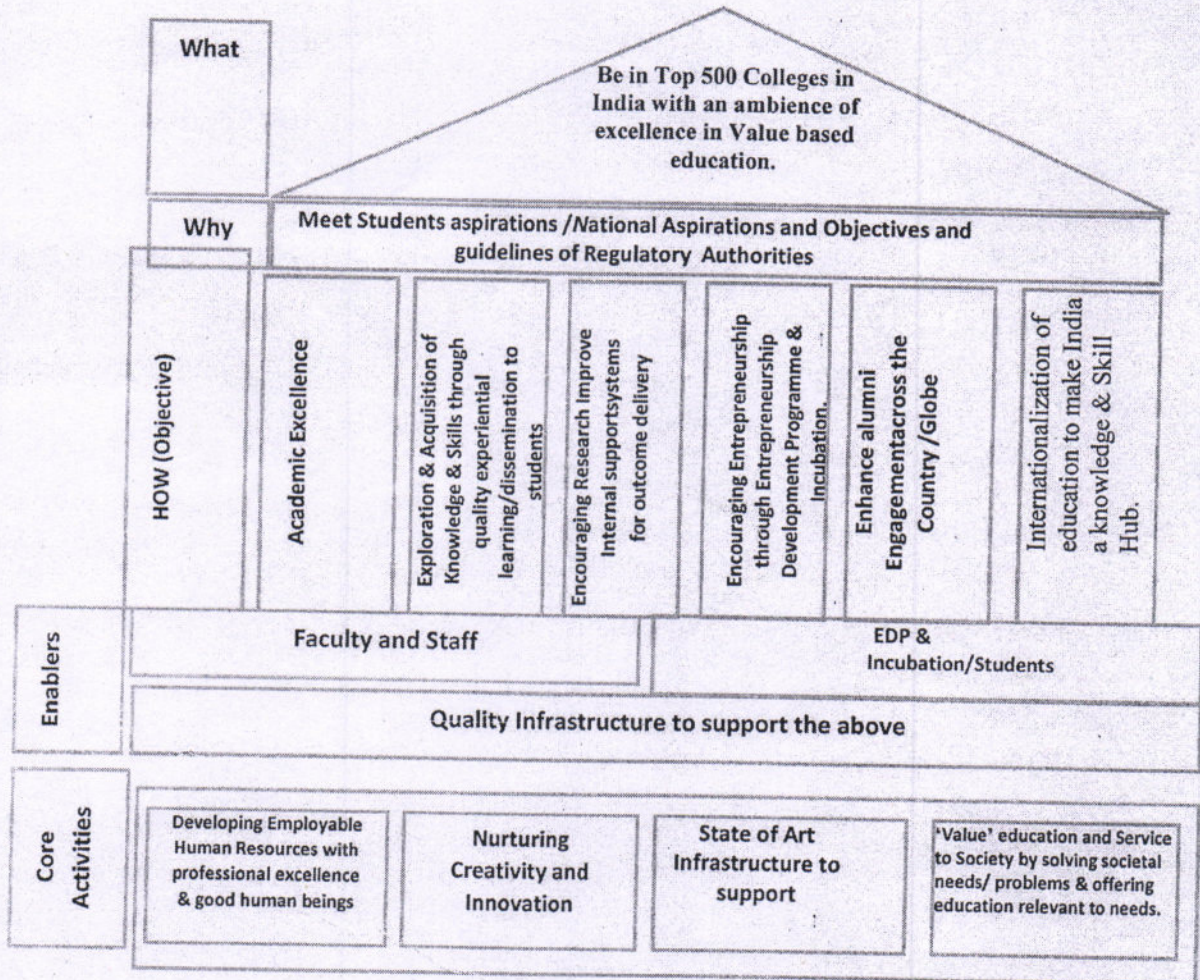
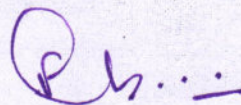


Hindustan College of Science & Technology, Farah (Mathura)

Prospective Plan 2018-2023

Director
Hindustan College of
Science & Technology
FARAH (MATHURA)

Plan- 1

Academic Excellence

Values-based Education creates a strong learning environment that along with enhancing academic achievements also develops students' social, emotional and relationship skills that last throughout their lives as student should transform into a good human being. The positive outcomes are achieved through a combination of teaching-learning methods blended with ethical and human values dissemination and cross domain research in cutting edge technologies and skill enhancement is encouraged. This leads to the all-round personality development of the students along-side their development as competent professionals of their domains. It also develops the social capacity of student with good human qualities equipping them with social and relationship skills, intelligence and positive attitude to succeed in every aspect of their lives professional, personal & social. A high quality of academic excellence, along with value inculcation as added experience only can achieve this for the students.

Strategies:

1. Curriculum Design and Revision (Multi-Disciplinary Education):-

Curricula of all the programmes developed and adopted at the College are aligned with AKTU, the affiliating University and covers multiple facets like providing domain technical knowledge, desirable attributes, as a performing professional along-side professional ethics and relevant domain and non-technical Soft and behavioral skills. Along with these skills it also encapsulates a vision of societal needs & aspirations. To promote higher order thinking through analyzing, evaluating concepts, processes, procedures and principles in the specific domain of education, the course outcomes are designed in line with the revised Bloom's Taxonomy. The courses are developed to meet the stated PEOs, POs and PSOs of the program. The Choice Based Credit System adopted in the institute has given scope to the students to learn cross domain subjects/ technologies and take up inter-disciplinary project work. The curriculum is redesigned to incorporate the industry needs and the sociological and application based learning exposure that would enhance the students self-learning and employability skills.

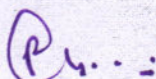
The salient features of Curriculum

Induction program has been made a part of this Curriculum and considered as mandatory for newly admitted students: This creates the vision of the students as to how they have to navigate through their studentship period & emerge as industry ready professionals of their domains and good human beings.

Five professional elective courses are offered.

And three open elective courses are offered.

- One/Two courses are offered as project based courses.
- Integrated courses and industry related courses in all disciplines are offered.
- Offered MOOCs courses as mandatory courses in the curriculum. (Hybrid self-initiated learning)



Director

Hindustan College of
Science & Technology

W-14, GATEWAY, MATUNGA

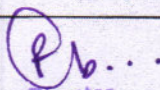
- Universal Human Values-1 and Universal Human Values-2 courses are offered.
- Logic building and basic coding principles, programming for corporate, problems solving, enhancement and linguistic competency building courses are offered to enhance fundamental necessary social and the Industrial skills of students.
- Socially Relevant Projects are also included in the curriculum.
- Mini project is included in the curriculum, in addition to major projects in final year stage.
- Industrial training/Practical training/Internship offered in the curriculum, in addition to major project of final year stage is mandatory as well as hobby options
- Sports and Games / Cultural and NSS /Fine Arts / Yoga are offered as courses as well as hobby option.
- Constitution of India and Environmental studies course, part of curriculum
- Virtual lab experiments are included in some of the labs in all disciplines to give experiential exposure.
- Courses related to Emerging areas are included in the curriculum, as well as offered through value added options.

2. Pedagogy and Delivery Modes

The day to day classroom delivery is through modern pedagogy evenly balancing the traditional methodology. The classrooms are equipped with the required audio visual aids and infrastructure to facilitate the new modes of delivery. The faculty are trained on the ICT methodologies and continuously are apprised of the same through conduct and participation in faculty development programmes, workshops and seminars. An exclusive teaching/ learning center is in place to support faculty teaching, student learning and communication. E-learning / online learning is encouraged additional support to the traditional class room teaching-learning practice. Faculties and students are encouraged for MOOC- SWAYAM-NPTEL Certification, or other such quality learning resources.

Metrics / Measures

Key Result Areas	Measures	Deployment
Curriculum Enrichment	Industrial Certificate Courses	Deployed
	Courses focusing on Skill development and Employability	Deployed
	Value Added Courses	Deployed
Learner Centric Curriculum delivery	Academic Plan as per OBE & Academic calendar	Deployed
	Quality projects	Deployed
	ICT utilization / Pedagogy Tools	Deployed
	Online Self learning Resources	Deployed
	Industry exposure through Internships	Deployed
	Workshops/FDPs on Pedagogy/Technology	Deployed


 Director
 Hindustan College of
 Science & Technology
 H (MATURBA)

	Learning Management System	Deployed
Smart Classrooms	Multimedia and support equipment	Deployed
	E-Learning Facilities.	Deployed
Laboratories	Periodic maintenance and up gradation	Deployed
	Virtual Laboratory	Deployed
	Additional Design and open ended experiments	Deployed

Plan- 2

Exploration of Knowledge through Innovation Meeting Societal Needs

The Institute addresses and enhances students' imagination, initiative and practical skills and equips them to innovate and confidently cross the threshold of challenges. Added to the academic activity additional open ended experiments, Micro/ Mini Projects, Industrial based projects, Product based projects are encouraged. The innovative ideas of students are transformed into reality by:

- Project Based learning from micro to macro levels involving processes and products.
- Enhancing collaborative projects with academic institutes, industry.

Metrics / Measures

Key Result Areas	Measures	Deployment
Research Publications	Numbers of papers published in reputed National and international journals	Deployed
	Numbers of papers presented in reputed National and international conferences	Deployed
	Faculty as reviewers for reputed journals	Deployed
Frontiers of knowledge	Operational Centers of Excellence	Deployed
	Conferences/seminars/workshops conducted.	Deployed
	MOUs with higher learning institutes in India & broad.	Partially Deployed
Patents and copyrights	IPR Workshops	Deployed
	Number of Indian Patents	In Progress
	Books and Monograms, Copy rights	In Progress


 Director
**Hindustan College of
 Science & Technology**
 TAKAH (MATHURA)

Plan- 3

Improve Internal Support Systems

The Institute has installed a modern and comprehensive Enterprise Resource Planning (ERP) system after streamlining all processes with the aim of improving efficiency and transparency of operations. The number of technical staff in the departments will be increased, including senior staff with higher qualifications. The Institute will provide additional administrative staff to departments to manage routine work such as, arranging admissions and examinations, maintenance, recording minutes of meetings, as well as specialized activities such as publishing newsletters, maintaining website and engaging with industry and alumni.

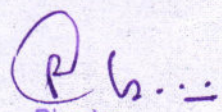
The Institute will enhance the purchase section to provide greater support for facilitating purchases in a timely manner. A conference/FDP/STTP course support cell will be set up to help arrange conferences/FDPs/STTPs. The Institute will provide adequate staff and online systems to enable maintenance of the estate and buildings at a higher standard.

Action Points

- Simplify systems and processes with a modern ERP system.
- Appoint and empower departmental managers to support and co-ordinate purchase, maintenance and administration in the Department.
- Conduct annual satisfaction survey.
- Service orientation and training for staff, service response and online complaint systems.
- Establish improved faculty orientation and mentorship programme for new faculty members.
- Create a 'conference organizing support cell' as per the requirement of MHRD,NPTEL - SWAYAM.

Metrics/Targets

- Reduction in average processing times.
- Continuous improvement on satisfaction survey scores.
- Tracking and reduction in complaint redressal times.


Director
Hindustan College of
Science & Technology
FARAH (MATHURA)

Plan- 4

Entrepreneurship

The Institute aims to create an ecosystem for deeper collaboration with industry in several modes, including consultancy, sponsored research projects, technology transfer and continuing education. Measures are taken to transform classroom learning to a project based experience. The idea to innovate is encouraged through the INNOVATION DAY FEST and the best idea is rewarded. Infrastructure support/ funds are provided to give shape to the ideas. The incubation center mentors and supports young technocrats providing opportunities to exploit their full potential by setting up their own ventures thus becoming "job generators" rather than "job seekers". Strategy to provide a platform to business Start-ups to develop the innovative ideas into commercially viable products is the main objective of the "incubation cell".

Training and mentoring to the students is given through Entrepreneurship Development programmes to realize the idea into application/ product at the institute. Initial awareness on entrepreneurship is facilitated by conducting awareness camps, guest lectures, seminars, workshops, and skill development programmes.

The Industry Institute Interaction Cell proactively builds partnerships with industry in areas of strengths of the Institute. Collaboration with the industry is built through well-structured student internships and appointment of industry professionals as Visiting Faculty. A significant quantum of research will originate from problems identified as a result of the faculty's engagement with industry.

Metrics / Measures

Key Result Areas	Measures	Deployment
Industry Collaboration	Industry Supported Labs	Partially deployed
	Student Internships	Made Compulsory
	Knowledge exchange through seminars and workshops	Deployed
	Faculty as Corporate Trainer	To be Initiated/Partially deployed
	Consultancy and Testing to industry	Initiated
	Sponsored and funded collaborative research	Initiated
	MOUs with industries	Partially deployed
	Exclusive incubation facility	Partially deployed

Innovation and Entrepreneurship	Proactive participation of Students and Faculty	In Progress
	Focus on Product development	In Progress
Resources & Infrastructure	Exclusive facility for R&D	In Progress
	Licensed Technologies	Planned

Plan- 5

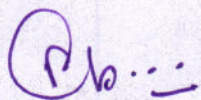
Alumni Engagement across the Globe

Alumni have been key stake holders in the Institute's evolution and growth. Alumni achievements have been a source of pride for the Institute and institute alumni have contributed significantly in society & nation as well as at international level. Plan for active alumni chapters in various cities in India and several initiatives from the alumni to support some of the Institute goals are in process. Donations from the alumni will result in creation of new infrastructure (convention centre, innovation centre) and support towards student facilities and counseling. The Faculty Alumni Network (FAN) will help the Institute in identifying and attracting young researchers and academics to faculty positions at the Institute. The Institute has Distinguished Alumni in a large spectrum of business and professions who can provide on-line guidance to students by way of guest lectures, project guidance, learning new technology experience etc. The Institute conducts several events to engage with alumni within India and around the world. A dedicated committee manages alumni interactions, supported by a new entity. The Institute will make more efforts to enhance the engagement with all alumni. The focus will be on a two way interaction.

The Institute is committed to lifelong involvement with all students who will continue to be part of HCST family even after they graduate. The Institute will build its engagement on adding value and support to the current students through the alumni who in their careers and professions have received specialized training, lectures, access to the latest research and thus help the current students on the Campuses through networking and online mentorship sessions. The Institute will welcome alumni visits to the hostels and departments and will provide opportunities for alumni to interface with students and faculty and participate in the research and educational activities at the Institute.

Action Points

- Expand the Alumni Club at the Institute to support more alumni visits, activities and engagement online/offline.
- Initiatives for seeking support from Alumni for continued online offline learning and career improvement of current students.


 Director
**Hindustan College of
 Science & Technology**
 FAKAHI (MATHURA)

- Multiple interaction modes such as, interaction between alumni and students (Disha), mentoring, interaction between alumni and faculty, alumni inputs for curriculum development, alumni support for student placements and internships, alumni involvement in Board of Studies, Department Advisory Committees and in enhancing the innovation ecosystem, are all intended to be implemented at a gradually and increasing level from present level.
- Alumni Chapters at international destinations & prominent Indian cities as well as on-line indirection ,web app groups

Metrics/Targets

- Number of alumni visitors to Alumni Centre and the Institute: 500 per year.
- Number of meets/networking events for alumni: 1-2 per year.

Key Areas	Deployment
Alumni Centre at the Institute	Deployed
Supporting alumni needs for continued learning and career improvement	To be Initiated
Multiple interaction modes	Deployed
Alumni Chapters	To be Initiated


 Director
 Hindustan College of
 Science & Technology
 FAKAH (MATHURA)

Plan- 6

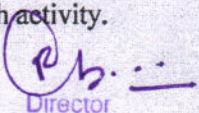
Internationalization

Globalization is the norm in the present day -modern society based on knowledge and technology exchange & global supply chains. The wider economic, social and cultural globalization theories emphasize that the current setting for education, teaching and learning also be globalized to meet the expectations of business and industry and helping students to adjust to working environment and Global diversity and culture of most MNC's. The scenario of higher education internationally is dynamic and changing continuously. The international academic institutions are welcoming Indian students with the doors wide open, pressing Indian institutions for drawing a concrete strategic plan to survive with good student enrolment. It also offers an opportunity to institutions for collaborative programmes benefiting both partners involved. The international education system appreciates Indian talent and thus, the Indian institutes may attract good professors of foreign and Indian origin, as well as many leading Universities have Faculty and students of Indian origin, and may desire to set up Campuses in India to lower the cost of education delivery and attract Indian students based on their brand value.

Technical higher education is increasingly aligning itself to expectations of global enterprise; hence Indian institutions should embrace internationalization that could provide them with new opportunities, know how, growth and acceptance. The country's rationale for internationalization would be to enhance its soft power, improve standards of domestic educational institutions and produce graduates with world Class competencies and cutting edge proficiencies and skills. This can best be achieved by having more innovative partnerships to start with. Given the historical advantage in higher education (particularly among emerging market economies) the widespread use of English language and low-cost living, and above all a high intellectual capital & zeal for academic achievements. India can potentially become a global hub for higher education. We need to provide greater autonomy to our Centres of Excellence to enter into a collaborative partnership with the best Universities abroad, who are willing to expand in to India through "Twinning Programs", collaboration, Faculty & students exchange programme etc.

Action Points

- MOUs with Foreign Universities to give the faculty and students international exposure to augment the knowledge base.
- Academicians of Foreign Universities as Mentor.
- Double degrees with obligatory abroad period.
- MIT- MOOC Courses.
- Center of Excellence in collaboration with foreign laboratories to enhance research activity.


Director
**Hindustan College of
Science & Technology**
FAKRAH (MATHURA)

Metrics/Targets

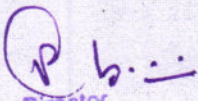
- Number of Students Pursuing their higher education in reputed International Universities.
- Number of interactive sessions with Foreign Experts to students and Faculty.
- Number of Conferences organized with Foreign Experts as resource persons.
- Enrollment of Students from overseas countries

Key Areas *	Deployment
MOUs with Foreign Universities	In Progress
Academicians of Foreign Universities as Mentor	To be Initiated
MOOC Courses	To be Initiated
Center of Excellence in collaboration with foreign laboratories	To be Initiated

* being an affiliated College, there are constraints in these regards and the College does not have full autonomy. As well acquire the University status these aspects of internationalization will get a major fillip.



Dr. Harendra Singh
(Director, IQAC)
Director
Internal Quality Assurance Cell
Hindustan College of Science & Technology
Farah, Mathura



Director
**Hindustan College of
Science & Technology**
FARAH (MATHURA)

Hindustan College of Science & Technology, Mathura

Annual e-governance Report

(Session 2021-2022)

Dated: 11-08-2022

E-governance is operational in the working processes of Hindustan College of Science and Technology, especially in the following areas:

- Administration
- Finance and Accounts Student
- Admission and Support
- Examination

E-Governance in Administration:

- Websim (ERP) is an attendance management system used by the college to deal with matters about academics and administration.
- A biometric attendance system has been implemented for Faculty and staff, further connected through the website.
- A faculty and staff member can apply leave through websim ERP system. The leave are sanctioned by concern
- Websim is used to record and track attendance, internal assessment, semester-end consolidated reports, pay-slip generation, faculty subject mapping etc.
- All significant purchases are got entry into the Websim portal.
- The class time-table has been mapped in websim ERP for smooth coordination among the various stakeholders.
- The College Website is well managed and maintained by the group-level team of Sharda Group of Institutions. It is user-friendly for smooth access and operation. All college happening has been updated on the college website at regular interval.



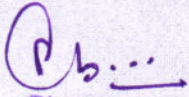
Director

Hindustan College of
Science & Technolog
MATHURA (MATHURA)

- The college has a bulk SMS facility for sending essential updates and information to students and Faculty/staff.
- All official communications and notices are sent via Sgei domain emails. WhatsApp admin Groups are also used for promptly sharing essential college updates and information.
- The college has ICT-enabled classrooms and conference rooms with projectors and screens.
- CCTV cameras are installed and maintained at crucial college locations for surveillance.
- With the view of a paperless policy, Hindustan College of Science & Technology started using Google facilities like Google Forms, sheets, docs, and drives to gather information from Faculty members and students.

E-Governance in Finance and Accounts:

- The accounting office is headed by the Account officer, HCST, who facilitates transactions with the Cashier and the Administrative officer.
- The Accounts Office uses Websim (ERP) to maintain all the financial records and data of the college, such as generating reports, payment vouchers, profit and loss statements, Balance sheets etc.
- Payroll Management System of website ERP system helps calculate salary, payroll reports, generate pay slips, etc.
- The staff members can access pay slips through the website portal login with their user-ID.
- The Accounts office uses the finance module to manage the funds received from student fees and Government schemes. The ERP software has calculated and maintained income tax calculation, T.D.S. filing, and compliance.


Director

**Hindustan College of
Science & Technology**
FAKIH (MATHURA)

E-Governance in Student Admission and Support:

- The Dr. A.K.T.U., Lucknow Admission Portal and college website ERP system are used for managing the admissions in the college.
- It also manages many other aspects, such as number of students applying to each course, withdrawals, admission fee submission etc.
- The admission-related grievances are addressed through the admission support committee comprising of Nodal officer, Help desk and grievance committee members.
- The college also facilitates academic pursuits by providing easy access to computer labs with the latest software.
- The entire campus is Wi-Fi enabled. The college has a well-stocked and fully automated library and managed Websim ERP. It uses Opac (Online public access catalogue) featured and scalable library management system.
- During Covid, Faculty and students were given remote access to use all e-resources, assignments, and lecture notes on Websim ERP.
- Students and Faculty use Dell-net for access to e-journals and e-books.
- Hostel allotment and hostel grievances are managed by the website ERP.

For a smooth teaching-learning process, especially during Covid, capacity building programmes using Google Classroom and Google Meet, Advanced concepts in Google Classroom & Google Meet were organized by various committees and departments in collaboration with IQAC to familiarise the faculty with the different new teaching and communication methods.

During Covid, all classes were taken online. Students living in remote areas were connected via e-learning platforms such as Google Meet and Zoom. The college faculty conducted a series of webinars on several important academic and non-academic issues. Some of the problems related to Covid management were part of many webinars undertaken by different departments.



Director
**Hindustan College of
Science & Technology
FARAH (MATHURA)**

E-Governance in Examination:

- HCST using AKTU ERP System for generating university all examination activities for the students, uploading Internal Assessment theory marks, Practical sessional practical examination marks, student attendance etc.
- Students use the AKTU ERP system to fill out exam forms and view their semester exam results.
- The college's ERP system is used for the entry of internal class test marks and attendance of students.
- Student's class test marks has been recorded into ERP system.
- During Covid, all internal examinations were managed online. Examination-related grievances are redressed through the dedicated AKTU university student portal.
- Students can fill challenge evaluation form through their portal if they are satisfied with their marks.
- AKTU assign extended practical examination duty through AKTU ERP system.
- Hindustan College of Science and Technology using AKTU ERP system developed/ provided by Dr. A.P.J. Abdul Kalam Technical University, Lucknow.
- In this AKTU ERP we use to upload students internal assessment theory and practical marks (sessional marks) as well as external practical examination marks session wise and semester wise.
- AKTU generates students roll number after online provisional registration and final verification of all necessary entries and documents of students uploaded.
- On AKTU ERP system students used to fill their semester wise examination form through students login generated by the university.
- Students can view their result on AKTU website in the one view result module.
- There are various other module available in the AKTU ERP for students and faculty members.


Director
**Hindustan College of
Science & Technology**
FARAH (MATHURA)

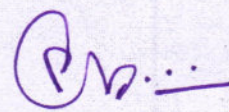
- On AKTU ERP faculty login also prepared by the college, which is used to map the subjects taken by the faculty members of different discipline course. Sessional marks and practical examination activities is possible only after mapping of subject in the faculty login.
- Students can apply for revaluation of answer book if they not satisfies with the marks obtained in any subject, through revaluation module in the student's login within 30 days of notification by the university.



(Dr. Harendra Singh)

Director, IQAC

Director
Internal Quality Assurance Cell
Hindustan College of Science & Technology
Farah, Mathura



Director
Hindustan College of
Science & Technology
FARAH (MATHURA)