

## School of Engineering and Applied Science

<https://ahduni.edu.in/seas>



### About Ahmedabad University:

Ahmedabad University is a private, non-profit, liberal education driven, research university located in one of India's most vibrant cities. It was founded in 2009 by Ahmedabad Education Society, a non-profit educational trust that was established by leaders of the society and industry in Ahmedabad over 80 years ago. The university offers undergraduate, graduate, and doctoral programmes in a wide variety of areas including management, life sciences, engineering and computer studies. It has made strides through global collaborative research, broad based contextual and flexible curriculum, project based learning, and industry linkages thus creating a unique learning environment. Ahmedabad University is a community of scholars and practitioners who believe in the value of enquiry and its application for the benefit of the society.

### School of Engineering and Applied Science

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## Director – CDC's Message



Dear Recruiter,

We, at Ahmedabad University believe that true education transcends the confines of textbooks and classrooms. True education begins in the real market place where the customer has the last word.

In keeping with the tradition of the corporate world sharing their rich culture with our students and commensurate to the brand equity your reputed organization enjoys in the industry, I take immense pride in introducing to you a batch of enterprising and competent Information & Communication Technology, Mechanical and Chemical Engineering students ready to take on the challenges posed by the industry.

We reinforce our commitment towards building long term and symbiotic association with our recruiters by facilitating their connect with the talent pool at our university. We look forward to strengthening our existing relationships and developing new ones in yet another exciting journey over the placement process.

I along with my entire team, would like to take this opportunity to invite you to participate in our Placements Process and give these students an opportunity to be a part of your esteemed organization.

Best Regards

**Renu Misra**

Director – Career Development & Industry Engagement

## Associate Dean's Message



Greetings from School of Engineering and Applied Science (SEAS)! Our identity as SEAS is driven by Ahmedabad University's commitment to building a highly competent engineering school.

The "Applied Science" label says that we recognize studies at the interface of engineering / technology, and the "pure" sciences, as an intrinsic part of the curricula and research at the engineering school. A new unified time table across all the academic units of the university has been put in place to reinforce interdisciplinary linkages. The emphasis is on learning about real-world problems through internships and also through activities, such as short term courses and workshops in between the regular semesters by introducing the ISP i.e the Independent Study Period. A refreshed curricula is also evolving, in consonance with the new time tabling pattern, that brings access to foundational courses to those who need them, and at the same time, greater and more flexible choices for core and elective courses.

Ahmedabad University offers unique opportunities to learn basic and fundamental concepts; perform innovative experiments in laboratories; interact with the surrounding world; take interest in various walks of human life; develop multi-dimensional personality; and understand importance of living together in the society. The environment at School of Engineering and Applied Science (SEAS), Ahmedabad University provides an ample scope for the transformation of a

teenager into a matured young graduate thereby enabling each student to acquire professional success and sound human values. Academic processes at our school demand quality of work and intensive involvement of students in various areas. This is the most sensitive phase of life for any student. SEAS is committed to provide the best environment for the holistic development of each and every student.

We hope to provide our students with an intensive experience of Project Based Learning (PBL), so that they are able to learn by doing and tinkering, and then enjoy their classroom instruction in a new perspective. In this context, our partnership with Olin College of Engineering is now on a more intense footing, with focused faculty exchange visits.

SEAS continues to grow in terms of infrastructure with new teaching and research labs coming up. The upcoming workshop will provide us with a fully equipped, modern general engineering facility. This should take our research activities to new heights in the thrust areas of our choice, ranging from nanomaterials, surface science to data analytics, image analysis and communications engineering. We aim to make a deep impact in these selected areas.

All these changes are facilitated by a responsive, efficiently re-organized administration that will positively impact placements, employment opportunities and learning outcomes. We strive to create engineers and scientists who are committed to a serious sense of purpose and scholarship.

**Prof. Sanjay Chaudhary**

Associate Dean, School of Engineering and Applied Science, Ahmedabad University

# Lineage

The School of Engineering and Applied Science is a part of Ahmedabad University, which is promoted by Ahmedabad Education Society (AES).

## AES – A society with a long and prestigious educational lineage

Since 1935, AES has been directly and indirectly instrumental in establishing many institutions of higher learning in Ahmedabad, such as Indian Institute of Management, Ahmedabad (IIMA), Centre for Environmental Planning and Technology University (CEPT University), L.D. College of Engineering, Physical Research Laboratory (PRL), National Institute of Design, Ahmedabad (NID) and Ahmedabad Textile Industries Research Association (ATIRA).



## AES – An institution with strong industrial and philanthropy roots

AES has deep roots in the trade and industrial community of the city. Highly acclaimed industrialists, philanthropists and scientists represent the board of governors of AES. AES has five board members as representatives on the AU Board of Governors. This intimate connection has served many purposes. It has given practice orientation to our educational institutions, provided funding support for creation of infrastructure, imbued tradition of values and accountability and has created live contacts for the various academic activities interfacing with the larger economy and society. AES has built a large land bank created with a long term vision. AES has more than 250 acres of prime land in the city of Ahmedabad for developing AU. There are very few urban universities around the world which have such land resources in the heart of the city for its growth and development.

## Ahmedabad University (AU)

Ahmedabad University was established in July, 2009. It is self-financed, non-affiliating and was setup under the Private Universities Act 2009, passed by the Government of Gujarat. It is a private, non-profit university dedicated to rigorous academic pursuit with a focus on building enquiry as a value through interdisciplinary learning. Ahmedabad University's vision is "To foster continuous progress of the Self and Society". With growing shortages of skilled manpower and an increasing demand for high-quality professional and higher education, there is need for a substantial expansion in this sector. Nurturing our universities has now become vital as we stand poised to become an industrial power and a knowledge society.

AU is committed to the pursuit of inquiry and to provide better access to students for professional and general higher education which is contemporary in scope and career oriented in content. It aspires to be the new star in the educational landscape of the Country.

In its quest to provide global quality education at local costs, AU has chosen to design and deliver innovative programmes with a student-centric focus from its inception. It is committed to ensure that no deserving student will be denied an opportunity to pursue

higher education because of financial constraints. A viable financial aid policy has been designed to assist such students.



# Philosophy

Ahmedabad University has taken up the challenge of raising the standard of higher education in various fields like Management, Engineering, Life Sciences, Information Technology, Innovation, etc. to global benchmarks. AU's objective is to create institutions imparting high quality education in Ahmedabad so that larger number of students can take advantage of this education at a fraction of cost as compared to pursuing education in foreign universities. Additionally, AU has pursued network relationships with premier national institutions such as IIM's- and IIT's. It has also been engaged in tie-ups with Schools / Centres which are parts of world-class universities such as Olin, Stanford, and Cambridge.



## Balance of technical and social skills

AU promotes the balance of technical and social skills required to develop a well-rounded professional so as to meet global industrial standards and become responsible citizens. On one hand, AU students will be encouraged to conduct high quality scientific research and on the other, they will be required to take courses in humanities, arts and social sciences, thus providing them with a solid foundation in critical thinking and communication skills.

## Emphasis on multidisciplinary education

Education at AU will be a four-way interactive process between students, industry, society and faculty. AU offers a multidisciplinary, collaborative teaching and learning environment with a constant pedagogic exchange within AU's facilities, within the Ahmedabad education cluster and by collaborating with foreign universities.

## Board of Governors of AU

<b>Shri. Sanjay Lalbhai</b>	Chairman & MD, Arvind Ltd. President, Board of Governors
<b>Prof. Pankaj Chandra</b>	Chairman, Board of Management, Ahmedabad University
<b>Shri Prafull Anubhai</b>	Academician and Management Consultant
<b>Dr. R. A. Mashelkar</b>	Former Director General, CSIR
<b>Ms. Anju Sharma</b>	IAS Principal Secretary, Higher & Technical Education
<b>Dr. Mohan Kaul</b>	Former Director General & CFO, Commonwealth Business School, London
<b>Shri Naishadh Parikh</b>	Chairman and MD, Equinox Solutions Ltd.
<b>Shri Pankaj Patel</b>	Chairman and MD, Cadila Healthcare Ltd.
<b>Shri Saurabh Soparkar</b>	Senior Advocate, Gujarat High Court
<b>Shri Sudhir Mehta</b>	Chairman, Torrent Group
<b>Prof. Devanath Tirupati</b>	Dean, AMSOM, Ahmedabad University
<b>Shri B. M. Shah</b>	Member Secretary

## Board of Management of AU

<b>Prof. Pankaj Chandra</b>	Chairman, Board of Management, Ahmedabad University
<b>Shri Kiran Karnik</b>	Former President, NASSCOM
<b>Shri Naishadh Parikh</b>	Chairman and MD, Equinox Solutions Ltd.
<b>Prof. Devanath Tirupati</b>	Dean, AMSOM, Ahmedabad University
<b>Shri B.M. Shah</b>	Registrar, AU and Member Secretary
<b>Dr. Mita Suthar</b>	Assistant Professor, AMSOM, Ahmedabad University

## Schools and Centres at AU

- Amrut Mody School of Management
- School of Arts and Science
- School of Computer Studies
- School of Engineering and Applied Science
- VentureStudio - Centre for Innovative Business Design
- Centre for Heritage Management

## Collaborations & MoUs

AU and Olin College of Engineering, Boston, USA have formed a partnership to promote educational innovation. The partnership includes a faculty exchange programme aimed at integrating project-based learning and design thinking into the engineering curriculum at AU, thus offering a new model of education in India.

AU has partnered with several globally acclaimed institutes in a span of 5 years.

To enhance executive education, Ahmedabad University, is collaborating with Judge Business School of University of Cambridge for design and development of Executive MBA Programme. This also covers faculty development and an immersion module for students for global exposure at Cambridge (UK).

To promote innovation and entrepreneurship in India "VentureStudio- Centre for Innovative Business Design" is operating in collaboration with the Center for Design Research (CDR) at Stanford University.

School of Engineering and Applied Science, Ahmedabad University has signed a Memorandum of Understanding (MoU) with Wright State University, Ohio, USA. The MoU will enable exchange of faculty members, researchers and students, collaborative research projects, establishment of joint academic programmes and academic exchanges.



# School of Engineering & Applied Science (SEAS)

## Vision

The School of Engineering and Applied Science aspires to become an engineering institution that:

**nurtures engineers who can learn, analyze and adapt quickly to real world problems;**

**facilitates handling of complexity by providing project-based learning;**

**is compact, smart and focuses with deep competence on strategic disciplines;**

**and hosts specialized, multidisciplinary research centres of impact.**

## Mission

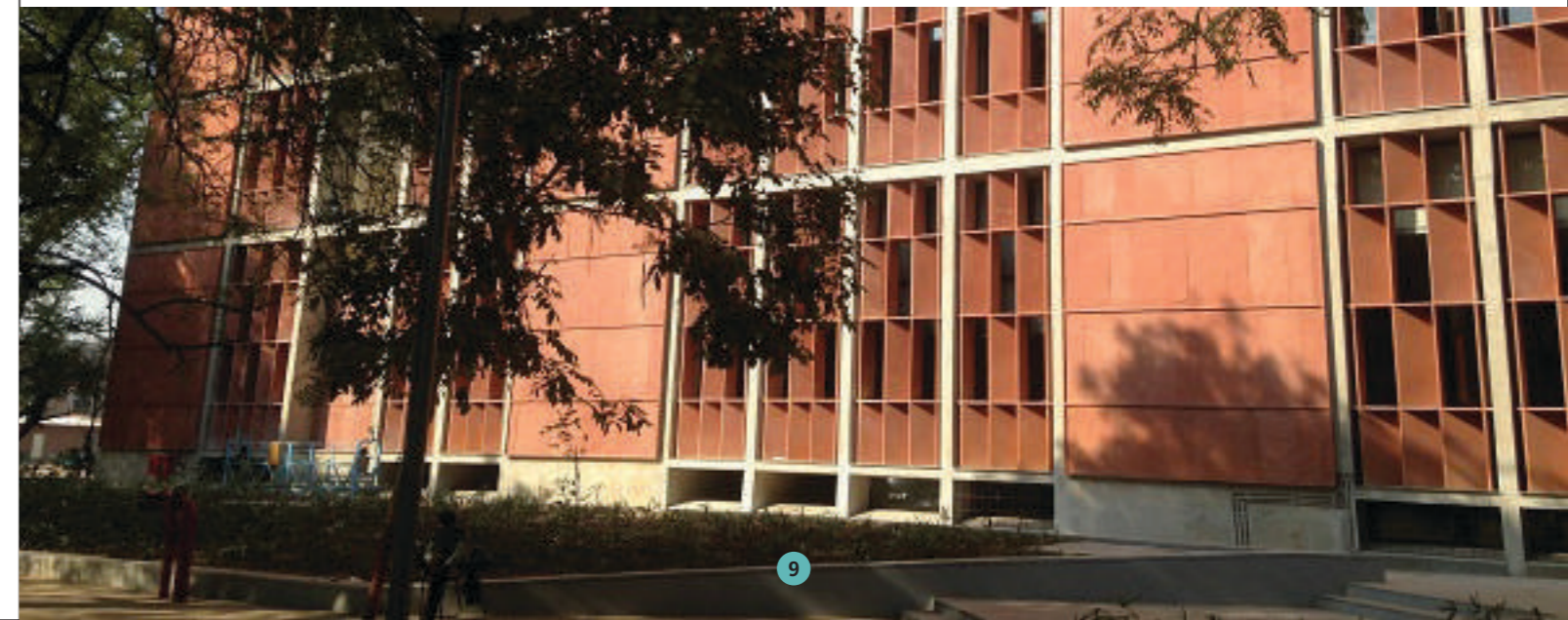
The School aims to prepare engineers and scientists who:

**are ready for a complex, diverse and global work environment;**

**can work in an interdisciplinary and collaborative manner at interfaces of traditional disciplines;**

**can negotiate the ethos of automation and specialized skills with the ability to learn, critically analyse, and**

**creatively respond to a changing world.**

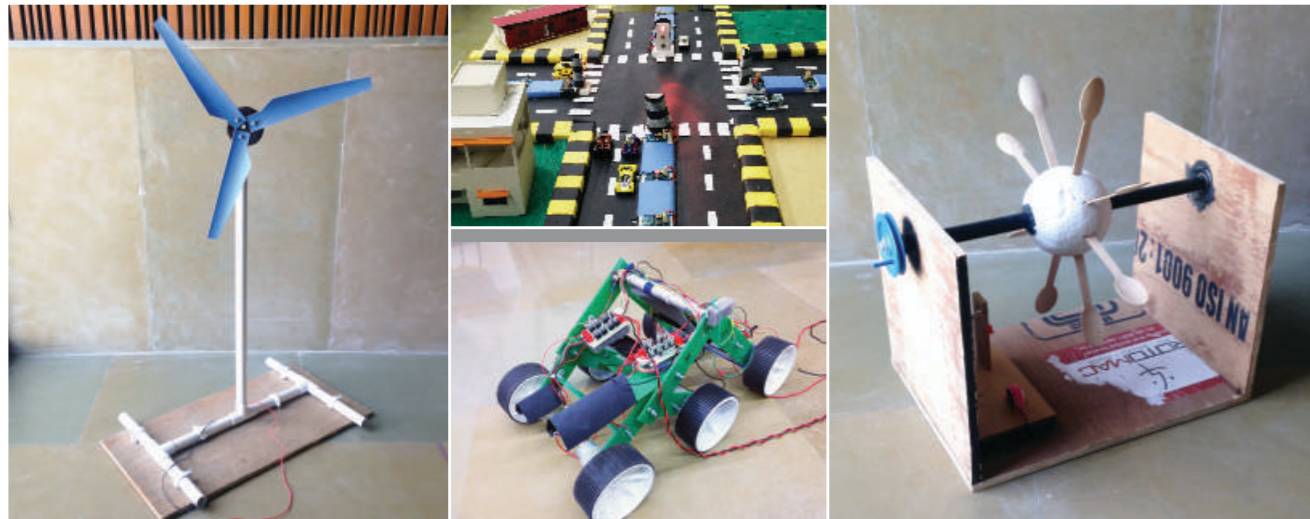


## Project-based Learning

Project-based learning is an essential feature of our academic programmes. For example, students of ICT do not simply learn computer system design in lectures; they actually design and verify a Central Processing Unit. Students of Chemical Engineering do not just study textbook separation processes; they work in teams to extract an essential oil from biomass with supercritical fluids. In the first-year electronics course, students design a simple battery charger and make an LED torch. In the first-year Design course, students step out of their classrooms, interact with diverse group of people in the community and industry, identify and analyze their needs and problems and propose and design solutions and prototypes to fulfill their needs and solve their

problems. The students of Mechanical Engineering learn the concepts of Design and Manufacturing in an integrated manner by carrying out projects in groups that involve both the design and manufacturing. For this, they use the latest computer design tools and CNC machines. As an example, the students conceptualized, designed and built projects such as a wind tunnel, crane etc. The other areas such as Heat Transfer, Thermal Engineering, Energy etc. are learnt in the same way.

These methods develop students into full-fledged engineering professionals capable of: (i) doing multidisciplinary and team-based work, (ii) designing and developing real-life engineering products and (iii) interacting with society and solving societal problems innovatively with engineering rigour.



## Academic Programmes

School of Engineering and Applied Science offers BTech, MTech and PhD programmes in various disciplines.

<b>BTech</b>	Chemical Engineering	Information and Communication Technology (ICT)	Mechanical Engineering
<b>MTech</b>	-	Computer Science and Engineering (CSE)	-
<b>PhD</b>	Chemical and Materials Engineering	Information and Communication Technology (ICT)	-

### BTech Programme

School of Engineering and Applied Sciences offers BTech programme in three major disciplines - Information and Communication Technology, Mechanical Engineering and Chemical Engineering.

As mentioned earlier, a unique feature of our programmes is that our students are rigorously trained in real-life product design. They can, therefore, make an immediate and impactful contribution to industry, academia, start-ups, research bodies or any strata of society.

SEAS's innovative curriculum is a result of the need to create product innovators within the country, a need which has been identified and endorsed by top academicians, industry scions and scientists. The

curriculum will adapt and improve continuously in the pursuit of excellence. The first two and a half years of the curriculum will consist of core courses. The next one and half year will be devoted to specialization in different areas of the respective disciplines.

### Attributes of the curricula

- Multidisciplinary
- Project based and active learning pedagogies
- User centred product design & innovation
- Exposure to research
- Specialized electives
- International exchange programmes



## BTech (Information and Communication Technology - ICT)

Our ICT programme embraces coursework in Computer Science and Information Technology, Electronics and Telecommunication, Design, Mathematics, Physics and Life Sciences, Humanities & Social Sciences and Management and Entrepreneurship.

This programme will effectively combine the above-mentioned branches of ICT during the first two and half years. Subsequently, students will be able to specialize in particular areas, some of which would be: Information Security, Data Analytics, Information Retrieval, Human Computer Interaction, Cloud Computing, Machine Learning, Bio-informatics, Bio-medical Instrumentation, Mobile Computing, Wireless & Mobile Communications, VLSI Design, Sensor Networks, etc.



## BTech (Chemical Engineering)

We have an innovative and differentiated chemical engineering programme that reflects current chemical engineering practices and industry needs. Along with learning the foundations of the discipline, our students of Chemical Engineering also learn how to solve real-world chemical engineering problems and also develop extensive computer software skills. They will also get an extensive exposure to Material Science and Engineering, which experts believe to be a major current and future thrust of the Chemical Engineering discipline.

Course work and projects are offered in cutting-edge areas including nano technology, thin films, advanced unit processes, and biochemical technology. Students do hands-on project work in process data acquisition and control with micro controllers; they use industry-standard process simulators and other chemical engineering software tools to deepen their knowledge and develop advanced skills needed by the industry.

## BTech (Mechanical Engineering)

Our Mechanical Engineering programme not only delivers training in classical mechanical engineering, but also emphasizes mechatronics – designing mechanical systems with embedded electronics. With skills honed by challenging projects throughout the curriculum, our students of Mechanical Engineering emerge from their programme, fully industry-ready with the ability to make an immediate impact in the workplace.

### Demographics

BTech (2014-18)	No. of Students
MTech(Chemical)	33
BTech(ICT)	105
BTech(Mechanical)	52

## MTech (Computer Science and Engineering-CSE)

Our two year MTech degree programme in Computer Science and Engineering (CSE), with a specialization in Data Science and Analytics, is a hands-on, live case-study based programme designed to meet the exploding need for highly skilled professionals in Data Analytics.

## MTech (CSE)

Year	No. of Students
2014-16	15
2015-17	10
2016-19	7

## PhD Programme

This will allow the students to work with fellow researchers and faculty from across the globe. Our PhD programme imparts a doctoral degree in the areas of ICT, covering broad areas of VLSI Systems, Computer Science and Engineering, Communication and Signal Processing and PhD programme in Chemical Engineering (ChE) covering broadly the areas of Applied Chemistry, as well as Chemical and Materials Engineering. There are fellowships awarded to PhD students according to the standard University norms. Additionally, SEAS is in the process of building a network and partnerships with some of the leading institutes in the world.

Year	No. of Students
2014	4
2015	2
2016	3

## Admissions

Admissions (except for the PhD programme) are through the Admission Committee for Professional Courses (ACPC) formed by the Government of Gujarat.

The admission to PhD programme is given after a rigorous process of comprehensive entrance examination and personal interview.

# Pedagogics

The School of Engineering and Applied Science follows a multi-dimensional and flexible approach to pedagogy. A large number of elective courses is available to students to enable them to specialize in their areas of interest. Some of these courses are university-wide interdisciplinary courses. While designing the course, the instructor of every course has the freedom of selecting the teaching methodology, type of exams and projects to be given and laboratory experiments to be conducted (where applicable).

The main distinguishing feature of SEAS is project-based learning. Every course in every semester has mandatory team / individual projects where students apply their theoretical and practical knowledge in building projects. Laboratories and classrooms are designed and equipped specifically to motivate and facilitate project activities.

The evaluation of students' performance in every course is done continuously and may include assignments, projects, quizzes, examinations, laboratory work (in laboratory components of courses), tutorials, etc. The syllabus and the evaluation schemes are communicated to the students at the commencement of the semester.

The purpose of any system of marking or grading is to assess the learning of students. World over, letter grades, obtained after normalizing the performance

of students, are being preferred over absolute marks for assessing students. SEAS follows a letter grade system with grades ranging from A+ to F (an A+ is awarded only in extremely exceptional cases). Students are awarded a grade in every course they take in every semester and a Grade Point Average (GPA) for that semester and a Cumulative Grade Point Average (CGPA) are calculated using standard formulae. A student is allowed to graduate only if (s)he has a CGPA greater than or equal to 2.0 out of maximum value of 4.33 without any F and has completed a minimum number of prescribed credits for that programme.

# Financial Aid

Ahmedabad University is committed to providing financial aid to deserving students. The amount of aid provided is determined by the annual income of the family. This ensures access to quality education to all eligible students. The details of the financial aid policy are available on the Ahmedabad University website (at <https://ahduni.edu.in/fees-financial-aid>).

AU has introduced Merit Scholarship Scheme which will be awarded to UG and PG students during admissions. Students eligible under Financial Aid Scheme will be excluded from this Scheme. Detailed policy is available on the School's website.

# Research

Research and innovations being an integral part of SEAS, scholarly activities are encouraged to enhance interactions among faculty members, students, industries and organizations for solving cutting edge problems in the field of engineering, information technology, electronic and communication, mechanical, chemical, material and electrical engineering. Faculty members are supported to establish research programmes and labs to get involved in innovation and conduct collaborative research.

The school has provided specialized equipment and infrastructure necessary for research, including online subscriptions, and high-speed internet access. In order to promote research activities, high quality specialized research labs are established at the school, in collaboration with industries. SEAS faculty is also supported by the national and international travel grants for presenting their unique research at conferences and workshops of international repute.

Some of the current research areas in the ICT domain are Algorithms and Optimization, Cloud Computing, Communication and Signal Processing, Data Science and Analytics, Internet of Things, ICT for Development, VLSI Systems, Nonlinear Dynamics and Chaos, Pattern Recognition & Image Processing and Machine Learning. In addition to MoUs signed by AU, SEAS has signed (MoU) for collaborative research environment with organisations like Lokbharti Gram Vidhyapith, Sanosara, Gujarat, International Crops

Research Institute for the Semi-Arid Tropics (ICRISAT), Andhra Pradesh. Currently SEAS is in the process of establishing research in the areas of Solar Energy and Energy storage, Water Treatment, Gas and Chemical Sensors, Catalysis, Surfactants, Nanotechnology and Mechatronics.

As part of research activities, faculty members publish and present their research in leading international and national conferences and journals in their respective areas of specialization. SEAS faculty members are also involved in establishing an externally funded research programme and cumulatively have received significant funding. The research environment is building momentum with faculty seeking funding from national agencies such as DST (Department of Science and Technology), BRNS (Board of Research and Nuclear Science), DBT, GUJCOST (Gujarat Council on Science and Technology). These projects are in the diverse areas of Image processing,



Communication Engineering, Data Analytics, VLSI, Surfactants, Catalysis and Mechatronics. SEAS was awarded an infrastructure support grant from GICT (Gujarat Institute of Chemical Technology) to establish its research lab in material science and engineering. Some of these projects are in the area of cognitive radio communications, development of robotic arm and enzyme mimics. In addition to the externally funded research, faculty is also supported aptly by AU in the form of seed grant and start up grants.

## University Knowledge Centre

Ahmedabad University is in the process of creating a Knowledge Centre which will be housed in an iconic building which will serve as the Central Library and a state-of-the-art information services centre. It will also provide access to a large number of online journals, databases, audio and video resources, etc. It will have discussion and seminar rooms, audio-visual rooms, reading areas, etc.

## Library

The library, currently housed in the SEAS building itself, has a fast-growing collection of books encompassing engineering, science, mathematics, humanities and social sciences and design.

Along with a small but focussed collection of print books, magazines, newspapers, audio/visual material, the library also provides access to scholarly digital resources like ACM Digital Library, IEEE Xplore Digital Library, Science Direct, JSTOR, OGC and Indiatat.com. All these resources can be accessed on the campus. Also the library has the membership of IIT Gandhinagar Library to access to various other valuable information resources.

Library provides Circulation Service, Reference and Information Service, Document Delivery Service (DDS), Inter Library Loan service (ILL) along with regular announcement and display of new additions of books to the user community.



# Infrastructure

The newly commissioned SEAS building has:

- 2.5 lakh sq. ft. of built-up area
- 16 large and small classrooms (120 & 60) seater
- 20 laboratory spaces (64 capacity)
  - Multi-Disciplinary Lab 1
  - Multi-Disciplinary Lab 2
  - Incubation Lab
  - Electronics Lab
  - VLSI Lab
  - Computing Lab
  - Vibration and Control Lab
  - Automation & Robotics Lab
  - Mechanical Operations Lab
  - CAD/CAM Lab
  - Data Analytics and Cloud Computing Lab
  - Wireless and Communications Lab
- Central Instrumentation and Research Lab
- Fluid Power and Chemical Electives Lab
- Heat Transfer Lab
- Mass Transfer Lab
- Physical and Inorganic Chemistry Lab
- Organic Chemistry Lab
- Workshop
- One auditorium (240 capacity), and
- Other infrastructure: Administrative & Faculty offices, PG & UG study spaces, Canteen, Conference rooms, etc.
- Library
- Exhibition Room
- Indoor Sports Room



# Student Life and other Amenities

Extra-curricular activities are organized almost entirely by students themselves. Every year students elect through a clean democratic process, the following student committees: Academic, Cultural, Festival, Placement and Sports. These committees are (minimally) guided by faculty counsellors and are provided annual budgets, to plan and execute their own activities.

Students of SEAS have been successfully organizing a multitude of sports and cultural activities, as well as annual cultural festival (Aaghaaz) and sports festival (Dynamos), ever since the inception of the Institute.

Ahmedabad University organizes an AU Youth Festival every year, which consists about 25-30 different events. SEAS students participate in this Festival in large numbers. More than 40 % of the students took part in some event or the other, last year.



## Sports Facilities and Activities

Ahmedabad University has facilities for indoor games like badminton, table tennis, chess, carrom, etc and outdoor sports like cricket, football, basketball, volleyball, etc. Indoor games facilities are available within SEAS premises too.

## Cultural Activities

Ahmedabad University is a scintillating hub of various cultural activities including internationally acclaimed music festivals, state and national level quizzes, various project proposal programmes and activities enabling social interaction with people of all cadres.



## Student Support, Engagement & Tutelage (SSETU)

SSETU is a new initiative of Ahmedabad University. It is a student facilitation centre aimed at giving AU students a place they can turn to for various queries, support, information, guidance and counseling. The objective is to connect with the students at a personal and individual level, to build a bridge that opens up good communication lines for them.



Students can seek information regarding accommodation and local whereabouts, financial support advice and international programmes. The SSETU office is located in the AU Head Office premises at Commerce Six Roads.

## Hostel Facilities

Ahmedabad University provides comfortable hostels for girls and boys within close proximity of the campus.



## Student Achievements

Mayank Jobanputra BTech (ICT) was nominated to be a facilitator for Google Applied Computer Science with Android Program . He is a student of VI Semester BTech (ICT)(2013-17). He was invited for the 2nd time to meet and discuss his work with Aida Martinaz (Global Program Head). Recently he has received recognition from Google for his work. He has conducted 2 workshops for final year and pre-final year students at the College level. (Year 2016)

1. Top three teams of IEEE AU secured astonishing ranks in IEEE Xtreme 10.0. (Year 2016)
  - a. SemicolonSEASAU - Kaivalya Shah, Maitrey Mehta, Varad Bhogayata. Rank 22 in India (610 globally)
  - b. NP Complete – Kishan Raval and Krima Doshi (VI Semester , ICT), Pujan Prajapati (IV Semester, ICT). Rank 24 in India (616 globally)
  - c. LETUSCSEASAU – Ashutosh Kakadiya, Maunil Vyas, Shreyas Patel (VI Semester, ICT).
2. Rohit Chaudhary, Priyansh Shah, Rishab Shah (from VI Semester ICT), secured top rank in 'CODE OVERSEAS' - An International Coding Competition held between Ahmedabad University and Informatics Institute of Technology, Sri Lanka. There were about 100 participating teams with 3 members each. (Year 2016).
3. Bhautik Pipaliya, Devanshi Gariba (Batch of BTech(ICT 2013-17)) presented a paper on "Modelling Human Behaviour in Smart Home Energy Management systems via machine learning techniques" in 2016 IEEE International Automatic Control Conference (CACs) in Taiwan.
4. CheckIT- Shashwat Sanghavi and Rahul Patel from the batch of BTech (ICT- 2012-16) developed a low cost mobile OMR system was appreciated and honoured by SRISTI 2016 and (GYTI award at the Rashtrapati Bhawan) (Year 2016).
5. Two teams comprising of:
  - a. Mohit Vachhani, Maharsh Patel, Jainil Vachhani (BTech(ICT) - 2014-18)
  - b. Rohit Chaudhary, Sharvil Shah, Priyansh Shah (BTech(ICT) - 2013-17)Participated in the ACM-ICPC Contest 2016, and reached the regional rounds.
6. Shailaja K Sampat 3rd year student of B.Tech(ICT) 2013-17 attended MIT Global Entrepreneurship Bootcamp. (Year 2016).
7. Saurabh Chauhan, ((MTech 2014-16) batch) was awarded student travel support of 1000 USD to present his paper 'IoT Suite: A Framework to Design, Implement, and Deploy IoT Applications' and participate in the 15th ACM/IEEE Conference on Information Processing in Sensor Networks (IPSN 16), Vienna.
8. Vaibhav B. Joshi (PhD scholar) received partial International Travel Grant from Centre for International Co-operation in Science (CICS) to present his research work in an international workshop on Digital-forensics and Watermarking(IWDW 2015) held at Tokyo, Japan.

## Career Development and Placement

The Career Development Center (CDC) at AU provides services, resources & experiences to its faculty & students which helps them in achieving their research, learning and career goals respectively. The CDC at SEAS takes care of the placement of the students. It consists of a Training and Placement Officer (TPO), Faculty and a Student Committee, all of whom work in close collaboration to make the training and placement processes successful. The CDC handles all placement related activities and queries like contacting the companies, student - industry interaction, on and off campus tests / interview, placement session, pre-placement talks and general visit of the industries.

Since placement is a continuous effort, we engage with the industry throughout the year in addition to the designated Placement months. We welcome industry participation in our curriculum building process and encourage receiving feedback from the industry to prepare students for the nuances of a practical world.

The first batch of students from the BTech(ICT) graduated in May 2016. 75% placement was achieved with few students getting multiple offers. More than 65 companies participated in the placement process.

The 2nd batch of students from the BTech(ICT) programme are graduating in 2017. AMAZON has

hired two students for the role of Software Development Engineer - Intern from February 2017 - Aug 2017.

### Internships :

Our students are encouraged to pursue internships to enhance their learning and get a feel of the demands of how professional organizations work.



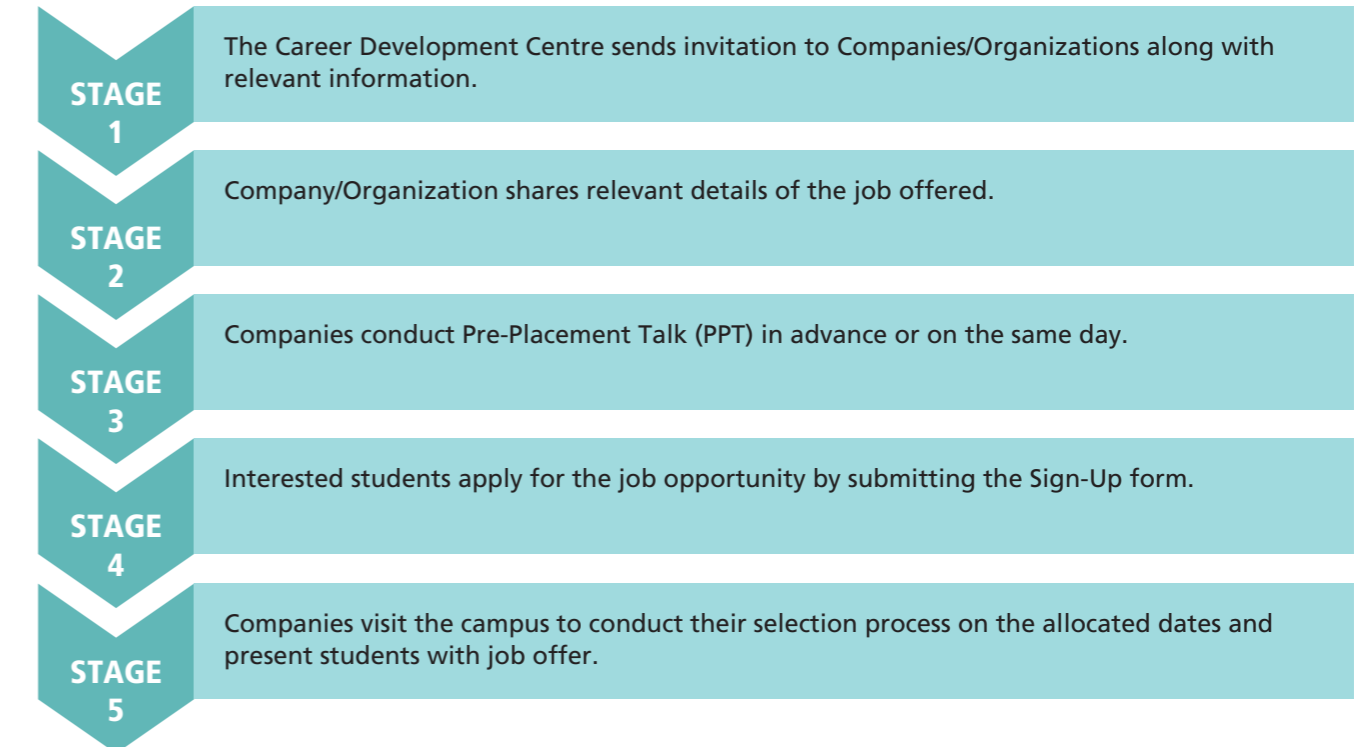
# Organisations participating in Recruitment Process

Accion Labs	COVIAM	IQR Consulting	Siemens
Adit Microsys	DRC Systems	iRobokids	Silver Touch Technologies
AgileCube	eClinical Works	ITS Data-Solutions	Sophos
AIMDek Technologies	eInfochips	iView Labs	SPEC INDIA
AlmaMapper	Etech Global Services	KloudScript	Squad Technologies
AlmaShines	Evosys	Krazy Mantra	TatvaSoft
Amazon	ezDI	Labh Group	Teach For India
ArguSoft	Gateway Group	Maruti Techlabs	Tech Mahindra
Arsenal Tech	Global Hunt	Matrix Comsec	Tech Altius
Aspiring Minds	GNFC	Meditab Software	The Beast Apps
Aspricot	GoT it!	Milople	Byte Prophecy
Atos	Green Field Control Systems	NCrypted Technologies	The Logic Factory
Awaaz.De	Gridle	Net Square Solutions	Think Analytics
Bazinga Labs	Havells	Peach Technovations	Tyler McIntyre Inc
BoTree Technologies	HCL TalentCare	Persistent Systems	Unikaihatsu Software
CapitalVia	Infinity Hunt	PWC - Actuarial sciences	Volansys
CIGNEX Datamatics	Infopercept	Rangam Consultants Inc.	Wipro
CIMCON Software	Intech Systems	Rishabh Software	ZoukLoans

# Internship Organisations

(n)Code Solutions	Capgemini	iCreate	Meridian Tracking
ABB Global Industries and Services	CEON Solutions	IIT Guwahati	NIST
Ablaze	Dimi Works	IIT Bombay	Pinstate
Acespritech Solutions	eiTRA	Indian Oil	Siemens
Agastya International Foundation	Essar Steel	Indian Rayon	SRISTI
Amazon	Fab2u	Internshala	Tata Motors
Aspiring Minds	GNFC	ISRO	Tech Altius
Bharti Airtel	GSECL	iView Labs	U&U Connoisseurs
Brand You	Grasim Industries	Jyoti CNC Automation	Urban Clap
	Gujarat Fluorochemicals	Kaira Software	Vision India Foundation

# Placement Procedure



## Placement Policy

The Placement Policy and JAF (Job Announcement Form) for SEAS is available online and can be downloaded from <https://ahduni.edu.in/seas/student-life/placement>

## Career Development Centre (CDC) Contact:

Director CDC : Renu Misra  
Email : [renu.misra@ahduni.edu.in](mailto:renu.misra@ahduni.edu.in)  
Manager – Industry Engagement & Placements : Vicky Takhtani  
Email : [vicky.takhtani@ahduni.edu.in](mailto:vicky.takhtani@ahduni.edu.in)  
Placement Officer - SEAS : Manisha Patel  
Email : [manisha.patel@ahduni.edu.in](mailto:manisha.patel@ahduni.edu.in)  
University Office : [careerdevelopment@ahduni.edu.in](mailto:careerdevelopment@ahduni.edu.in)  
SEAS : [placements.seas@ahduni.edu.in](mailto:placements.seas@ahduni.edu.in)

## Advisory Committee

**Mr. Kiran Karnik**  
Ex-Chairman, NASSCOM

**Mr. Ashank Desai**  
CEO, Mastek

**Prof. B.H. Jajoo**  
Professor, IIM-A

**Prof. Dheeraj Sanghi**  
Professor, IIT-Kanpur

**Mr. Pratul Shroff**  
CEO, e-Infochips

**Dr. A. H. Kalro**  
Former Provost – Ahmedabad University

**Prof. B. V. Mehta**  
Associate Dean– School of Computer Studies,  
Ahmedabad University

**Shri B. M. Shah**  
Registrar and Member Secretary

## Research & Development Projects

Following is the list of funded R & D projects of SEAS

**Title:** Quaternion based leader-follower robust tracking control of an industrial robot using an anthropomorphic arm

**PI:** Dr. Harshal B. Oza, Assistant Professor, SEAS  
**Project Duration:** 3 years (2016-2019)

**Funding Organization:** Science and Engineering Research Board (SERB), Department of Science and Technology (DST), Government of India.

**Funding Amount:** Rs. 30 Lakhs

**Title:** Description based person identification in unconstrained surveillance video

**PI:** Dr. Mehul S Raval, Associate Professor, SEAS

**Co-PI:** Dr Sanjay Chaudhary, Associate Dean, SEAS

**Project Collaborator (PC):** Anand Laddha, Scientific Officer, BARC, Trombay

**Project Duration:** 3 years (2016 - 2019)

**Funding Organisation:** Board of Research in Nuclear Science (BNRS), Bhabha Atomic Research Centre, Department of Atomic Energy, Government of India

**Funding Amount:** Rs. 20.92 Lakhs

**Title:** Systematic Design of Redox Potential Tunable Nanoparticles to Mimic the Function of Biological Enzymes for Mitigating the Diseases caused by Reactive Oxygen Species

**PI:** Dr. Ajay Karakoti, Associate Professor, SEAS

**Co-PI:** Dr. Sanjay Singh, Assistant Professor, SAS

**Project Duration:** 3 years (2016 – 2019)

**Funding Organization:** DST - SERB Early Career Research Award

**Funding Amount:** Rs. 33 Lakh

**Title:** Design and Performance Analysis of Non-parametric Detection algorithm for Cognitive Radio - MIMO Communications

**PI:** Dr. Dhaval Patel, Assistant Professor, SEAS

**Co-PI:** Dr. Sanjay Chaudhary, Associate Dean, SEAS

**Funding Organization:** Gujarat Council on Science and Technology (GUJCOST), Department of Science and Technology (DST), Government of Gujarat

**Funding Amount:** Rs. 4.3 Lakhs

**Duration:** Two Years (2016 – 2018)

**Title:** ASVI – Assistance System for the Visually Impaired

**PI:** Dr. Harshal Oza, Assistant Professor, SEAS

**Co-PIs:** Jaina Mehta, Rishabh Shah

**Project Duration:** 1 year (December 2015 – February 2017)

**Funding Organization:** Ahmedabad University

**Funding Amount:** Rs. 4.58 Lakhs

**Title:** Inorganic Layered Materials: New Opportunities for Nanomaterial Synthesis and Novel Multifunctional Catalyst Design

**PI:** Dr. Dharmesh Varade, Associate Professor, SEAS

**Project Duration:** 3 years (2015 – 2018)

**Funding Organization:** Ahmedabad University

**Funding Amount:** Rs. 11.82 Lakhs

**Title:** Superstable Responsive Aqueous Foam for Synthesis of Novel Biomimetic Materials

**PI:** Dr. Dharmesh Varade, Associate Professor, SEAS

**Duration:** 3 years (2017-2020)

**Funding Organization:** Science and Engineering Research Board, Department of Science and Technology, Government of India

**Funding Amount:** Rs.37 Lakhs

**Funding for Research Infrastructure:**

**Type of Funding:** Infrastructure - Gujarat Institute of Chemical Technology (GICT)

**Title:** Establishment of Basic Lab for Research in Novel Engineered Materials

**PI:** Dr. Ajay Karakoti, Associate Professor, SEAS

**Funds allocated:** Rs. 85 Lakhs

**Title:** Non-parametric Smart Sensing Analytics based on Large Spectrum Data and Estimation of Channel Activity Statistics

**PI :** (1) Dr. Dhaval Patel (Ahmedabad University - India) (2) Dr. Miguel López-Benítez (University of Liverpool, UK)

**Duration :** Three Years (April 1, 2017 to March 31, 2020)

**Funding Organisation:** DST-UKIERI

**Funding Amount :** Rs. 1,03,29,646 (120,112 GBP). This is the total grant for India and UK partner."

## Research - Invited Talks

- **Dr. Shailesh Nayak**, Earth System Science Organisation, Mitigating Tsunami Risk in the Indian Ocean. 15th March 2017
- **Prof. P. Selvam** from IIT-Madras, Nanostructured Materials and their Applications in Catalysis, 10th February 2017
- **Mr. Arup Das Gupta**, Managing Editor of GIS Development magazine, Geospatial Big Data, January 11, 2017
- **Dr. Shamik Bhattacharya**, St. Mary's University, San Antonio, Tricuspid valve - A forgotten valve in our heart: What Mechanical Engineers can do ? 4th January 2017
- **Prof. Dganit Danino**, Technion - Israel Institute of Technology, Application of CryoEM to soft molecular assemblies, 05th December 2016
- **Prof. Ravi Rao**, Tata Institute of Fundamental Research – Mumbai, Muse of Mathematics, 16th November 2016
- **Dr. Pankesh Patel**, ABB Corporate Research-India, Closing the Gap: Accelerating Application Development in the Internet of Things, Services, and People on 9th November 2016
- **Prof. Radhakant Padhi**, IISc, Bengaluru, Fascinating Applications of Optimal Guidance in Challenging Space Missions on 24th October 2016.
- **Dr. Srikrishnan Divakaran**, DAIICT, Gandhinagar, Approximation algorithms and heuristics for some combinatorial problems with applications in pattern matching and distributed systems, 24th October 2016
- **Shri Sushant Panda**, (Managing Director, Syum Labs), 'Data Science' and 'Visual Analytics', 19th October 2016
- **Dr. Parth Gupta**, faculty associate at IIIT-Vadodara, 'Mixed-Script Information Retrieval', 28th September 2016.
- **Prof K.S. Gandhi**, Department of Chemical Engineering, Indian Institute of Science, Bengaluru, 'Life and Death of Lead-acid Battery', 28th September, 2016.
- **Prof. Umesh Bellur**, Department of Computer Science, Indian Institute of Technology, Mumbai, 'Fragmentation in Virtualized Data Centers', 26th September, 2016.
- **Dr. B L V Prasad**, Scientist, NCL, Pune, "Molecular Tools for the Manipulation of Size, Surface Chemistry and Assemblies of Metal Nanoparticles", September 7, 2016.
- **Prof. R. K. Shevgaonkar**, Professor, Department of Electrical Engineering, IIT Bombay, 'Invisible Universe', August 11, 2016.
- **Dr Vijay Modi**, professor, Department of Mechanical Engineering, Columbia University, USA, 27th July 27, 2016.
- **Dr. Absar Lakdawala**, Associate Professor, Mechanical Engineering Department, Institute of Technology, Nirma University, 'A Level Set based CMFD Methodology and its Application to Interface Dynamics of Jet Breakup with and without Electric Field', July 21, 2016.
- **Mr Harshad Patel**, Head, Technical Training, Adani Ports & SEZ, 'Industry's Expectations from Young Engineers', March 31, 2016.

- **Prof. Dr. Ramki Thurimella**, Professor and Chair of the Department of Computer Science, University of Denver(DU), USA, 'Introduction to Some Foundational Ideas of Information Security Through Puzzles', March 23, 2016.
- **Dr. Amit Nanavati**, Senior Researcher, IBM Research, India, 'Technology, Engineers, Society', March 18, 2016.
- **Prof. Gaurav Sharma**, Professor of Electrical and Computer Engineering, University of Rochester, USA, "Wide Area Aerial Imagery", 14 March, 2016.
- **Prof. Amit Sheth**, Director and Professor, knoesis research center, Wright State University, Dayton, Ohio, USA gave a series of research talks on: (i) 'Semantics-empowered Smart City applications: today and tomorrow', February 23, 2016, (ii)'Semantics-enhanced linguistic, NLP and ML approach to health informatics', February 26, 2016, and, (iii) 'Research Career and Higher Education choices for ICT students', March 7, 2016.
- **Dr. Arnav Jhala**, Associate Professor of Computational Media at the University of California, Santa Cruz, 'Hierarchical Task Learning and Communication in Complex Collaborative Multi-agent Real Time Environments', December 9, 2015
- **Shri Kalpesh Padia**, PhD scholar at North Carolina State University, "Data and Storyline Visualization", June 3, 2015
- **Prof. Anil Gupta**, Professor, IIMA, "Grassroot Innovations", May 1, 2015. Page 21.1
- **Shri Rahul Nawab**, M.D., IQR Consulting, "Data Science and Analytics : What, SO What and What Next?", April 16, 2015
- **Dr. Sithu D Sudarshan** (Group Leader, Research Area - Software) ABB Corporate Research Centre, Bangalore March 12, 2015
- **Dr. Kamlesh Lulla** (Deputy Director, Research, NASA, USA), 'Space Technology : Innovations off Earth... for Earth' January 10, 2015
- **Dr. Nirmal Desai**, Research Staff Member, IBM Research, USA, 'Cloud and Mobile are here. What next ?', December 11, 2014
- **Prof. Priti Rege**, University of Pune, 'Introduction to Image Processing', July 31, 2014
- **Prof. Joseph Davis**, University of Sydney, 'Human Computation and Crowdsourcing: Conceptual Foundations, Emerging Directions', June 26, 2014
- **Prof. Pratik Shah**, Assistant Professor, IIIT Vadodara, 'Hunt for a Point in the Intersection of Convex Sets (Filter Design and Sudoku Solver)', Date: 4th March 2014
- **Prof. Aditya Tatu**, Assistant Professor, DA-IICT, 'Discrete Fourier Transform(DFT) aka Chinese Remainder Theorem (CRT)', Date: 21st Feb 2014
- **Dr. Pathik Pathak**, Faculty, Social Science Department, University of Southampton, UK, 'An Introduction to Social enterprise', Date: 13th Jan 2014
- **Dr. Chintan Vaishnav**, Senior Lecturer at Sloan School of Management at MIT, USA, 'Network System', Date: 6th Jan – 10th Jan 2014

# Faculty

We recognize that the single most important element in building an excellent educational institution is a highly qualified faculty. The majority of our faculty members have PhD degrees from well-known international and national universities. These faculty members are our greatest strength.

**Sanjay Chaudhary**

PhD (Computer Science), Gujarat Vidyapeeth

**Sridhar Dalai**

PhD (Chemical Engineer), IIT Mumbai

**Srikrishnan Divakaran**

PhD (Computer Science), Rutgers University

**Ratnik Gandhi**

PhD (Computer Science), DAIICT

**Gaurav Goswami**

PhD (Physics), IUCAA Pune

**V. R. Iyer**

MTech (Mechanical Engineering, IIT Bombay)

**Ajay Karakoti**

PhD (Materials Science), University of Central Florida

**Snigdha Khuntia**

PhD (Chemical Engineering), IIT – Guwahati

**Deepak Kunzru**

PhD (Chemical Engineering), University of Pittsburgh

**Anurag Lakhlani**

MS (EE) The University of Texas at Arlington, USA.

**Mitaxi Mehta**

PhD (Nonlinear Dynamics), Physical Research Laboratory, Ahmedabad

**Jaina Mehta**

M.Eng (Aerospace Engineering), Cornell University, USA

**Barbara Morawska**

PhD (Computer Science), Clarkson University, Potsdam, NY, USA

**Pratik Munshi**

MS (Engineering), Washington State University, M B A University of Houston

**Harshal Oza**

PhD (Electronic Engineering), University of Kent, UK

**N. Padmanabhan**

PhD (Applied Mathematics), Indian Institute of Science

**Dhaval Patel**

PhD (Electronics & Communication), Nirma University

**Dharamashi Rabari**

PhD (Chemical Engineering), IIT Guwahati

**Ashok Ranade**

MTech (Electronics), Jabalpur University

**Mehul S. Raval**

PhD (Electronics and Telecommunication Engineering), University of Pune

**Vaibhav Shah**

PhD (English), MLSU Udaipur

**Aditi Singhal**

PhD (Chemistry), IIT Roorkee

**Pratik Trivedi**

Pursuing PhD (Electronics & Communication), Nirma University

**Dharmesh Varade**

PhD (Chemistry), South Gujarat University

**Deepak Verma**

PhD (Materials Science), IIT Delhi

**Mazad Zaveri**

PhD (Electrical & Computer Engineering), Portland State University

## BTech (Information and Communication Technology - ICT)

Semester I	Calculus and Differential Equations	Electronic System Design	Communication Skills	User Centered Design	Introduction to Computer Programming
Semester II	Digital Design	Object Oriented Programming	Environmental Studies	Electromagnetic Theory	Discrete Mathematics
Semester III	Data Structures and Algorithms	Ethics	Linear Algebra	Computer Organisation	Signals and Systems
Semester IV	Analog and Digital Communications	Database Management Systems	Embedded System Design	Probability and Random Processes	Economics
Semester V	Computer Networks	Operating Systems	Wireless Communications	Elective - I	HASS Elective - I
Semester VI	Digital Signal Processing	Software Engineering	Elective - II	Elective - III	HASS Elective - II
Semester VII	Electives IV - VII	HASS Elective - III			
Semester VIII	BTech Project				

## BTech (Chemical Engineering)

Semester-I	Applied Physics	Engineering Graphics	Environmental Studies	Mathematics-I	Inorganic Chemistry	Communication Skills
Semester II	Introduction to Computation and Programming	Mathematics-II	User Centered Design	Physical Chemistry		
Semester III	Economics	Mathematics-III	Thermodynamics -I	Power Plants and Mechanical Operations	Stoichiometry and Process Calculations	Organic Chemistry
Semester IV	Fluid Mechanics	Chemical Process Technology	Heat Transfer	Mass Transfer Operations -1	Thermodynamics - II	Ethics
Semester V	Mass Transfer Operations - II	Chemical Reaction Engineering	Elective - I	Introduction to Materials Science and Engineering	HASS Elective - I	
Semester VI	Instrumentation and Process Control	Process Equipment Design	Elective - II	Elective - III	HASS Elective-II	
Semester VII	Elective - IV	Elective - V	Process Design and Economics	Process Simulation		
Semester VIII	BTech Project					

## BTech (Mechanical Engineering)

Semester-I	Applied Physics	Engineering Graphics	Environmental Studies	Mathematics-I	Introduction to Materials Science and Engineering	Communication Skills
Semester II	Introduction to Computation and Programming	Mathematics - II	User Centred Design	Chemistry		
Semester III	Economics	Mathematics - III	Thermodynamics-I	Power Plants and Mechanical Operations	Strength of Materials	
Semester IV	Fluid Mechanics	Design of Machine Elements	Manufacturing Processes	Ethics	Mechatronics	
Semester V	Heat Transfer	Thermal Engineering	Fluid Machines	Computer Aided Design and Manufacturing	Elective - I	HASS Elective - I
Semester VI	Control System Design	Elective - II	Elective - III	Thermal Machines	HASS Elective - II	
Semester VII	Dynamics of Machines	Metrology and Measurements	Elective - IV	Elective - V	HASS Elective - III	
Semester VIII	BTech project					

## MTech (CSE) Programme with Specialization in 'Data Science and Analytics'

Semester - I	Mathematics	Probability Statistics and Inference	Data Analytics and Visualisation	High Performance Computing	Technical Communication
Semester -II	Algorithms and Optimization for Big Data	Research Methodology	Machine Learning	Big Data Analytics	Advanced Statistics
Summer Semester	Thesis/Project Progress Assessment -1				
Semester - III	Elective Course - 1	Elective Course - 2	Thesis/Project Progress Assessment -2	Thesis/Project Progress Assessment -3	Thesis/Project Progress Assessment -4
Semester - IV	Thesis/Project Progress Assessment -5	Thesis/Project Progress Assessment -6	Thesis/Project Progress Assessment -7	Thesis/Project Progress Assessment -8	MTech Thesis Evaluation

## List of Electives for BTech and MTech Programmes

BTech(Chem)	BTech(ICT)	BTech(Mech)	MTech(CSE)
<b>V Semester</b>	<b>V Semester</b>	<b>V Semester</b>	Cloud Computing
Petroleum Refining and Petrochemicals	Advanced Data Structures and Algorithms	Advanced Machining Methods	Models of Computation
Transport Phenomena	VLSI Design	Power Electronics	Internet of Things
	Design and Analysis of Algorithm		Intelligent Building

VI Semester	VI Semester	VI Semester	
Membrane Science and Technology	Algorithms & Optimization for Big Data	Quality Engineering	
Surface Science and Nanotechnology	Machine Learning	Machine Tool Design	
Robotics	VLSI Sub-system Design	Robotics	
	Advanced Wireless Communication	Renewable Energy Technology	
	Integrated Circuit Device and Technology	Surface Science and Nanotechnology	
	Robotics		
	Renewable Energy Technology		

VII Semester	VII Semester	VII Semester	
Process Synthesis and Integration	Information and Coding Theory	Advanced Mechanical Vibrations	
Optimization Methods	Cloud Computing	Optimization Methods	
Polymer Science and Engineering	Circuit Characterization of VLSI Sub-system	Automobile Engineering	
Catalysis and Catalytic Processes	Internet of Things	Production and Operations Management	
Pollution Control	Models of Computation		
Biochemical Engineering	Intelligent Building : An Introduction for 'ICT'		

# Projects

A partial list of projects which the students have carried out during their academic session :

## **BTech (Chemical)**

1. Effect of process parameters such as temperature and acid concentration on preparation of porous walled glass microspheres.
2. Synthesis and characterization of nano particles for energy applications.
3. Demonstrable third semester project in Fluid Mechanics (Both Chemical and Mechanical) (PBL): Miniature Power, Generator, Hydraulic arm, Hydraulic Brake, Brake, Tesla turbine, Pneumatic Motor
4. Demonstrable third semester Heat Transfer (Chemical ) (PBL): Helical Coil Heat Exchanger, Design of Extended Surface Duct, Perfectly Insulated House.
6. Development of continuous process for synthesis of lipid particles
7. Understanding the heat storage and release capacity of phase change materials
8. Materials systems for perpetually bouncing ball
9. Synthesis and applications of ferrofluids
10. High altitude balloon based carriers
11. Demonstration of the working of nanofluids as heat transfer materials

## **BTech (ICT)**

1. CPS: Car-to-Car Communication using MIMO-SDR
2. Hybrid Visible Light Communication with Wi-Fi
3. Object Moment detection using Wi-Fi Signals
4. Performance analysis MIMO-OFDM
5. Performance analysis of Spectrum Sensing for Cognitive Radio
6. Spectrum analytics and Occupancy Modelling
7. F-Test Signal Detection using 1x2 SIMO system

8. Automatic Parallel Parking Car model
9. Line Following Robot
10. Automatic Railway gate control system
11. Smart Toll Tax Booth
12. A novel Low cost solution for weather condition
13. Obstacle Avoidance Robot
14. ICU Monitoring System
15. Predictive Maintenance System

## **BTech (Mechanical)**

1. Quaternion based remote dexterous control of industrial robots.
2. Demonstrable Strength of Materials projects (PBL): Car parking lift, Material handling trolley, Construction of Model Arch bridge, Numerical Simulation of beams under various loading conditions.
3. Co-curricular projects: Shine-up trolley for material handling .
4. Miniature Power Generator
5. Hovercraft
6. Hydraulic Arm/ Hydraulic Break
7. Slider Crank – Water Pump
8. Venturi Meter
9. Tesla Turbine
10. Non - Newtonian Fluid based door Closure
11. Wind Mill
12. Venturi Meter and Orifice Meter
13. Pneumatic Motor

Contact Us :

**Career Development Centre**

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